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DEVELOPMENT OF INDICATIVE BUDGET
STANDARDS FOR AUSTRALIA

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Note to Readers

This is an extremely long and complex document. In preparing it, the authors have tried to describe all of the assumptions underlying the development of the indicative budget standards and to explain in detail the methods and data sources on which they are based. The main aim of the approach has been to make the foundations of the budget standards transparent and thereby to encourage debate on their relevance and appropriateness. Unfortunately, this does not make for a document that is easy to read.

However, in order to make the Report more reader-friendly, each chapter has been written so that it can be read in isolation from the rest of the Report. The two key chapters are Chapter 2 (which describes in broad terms how the budget standards were developed) and Chapter 12 (which presents the results and compares the standards with other adequacy and living standard benchmarks). Chapter 14 explores the implications of the results for a range of income support policy issues.

Chapter 13 describes how a series of focus groups responded to the preliminary budgets, and provides many very useful insights that go beyond the statistics. Chapters 3 to 11 describe how each of the main component budgets were developed and are mainly of interest to experts in each area. These Chapters have also been designed to be read in isolation, although they are best read in conjunction with Chapter 2, which places each budget area into the overall research context.

EXECUTIVE SUMMARY

Chapter 1

The Social Policy Research Centre was commissioned in October 1995 by the Commonwealth Department of Social Security (DSS) to develop a set of indicative budget standards for Australia. This task, which will inform decisions relating to standards of adequacy, has not been attempted on this scale before in Australia.

A budget standard represents what is needed by a specified household, in a particular place at a particular point in time, to achieve a specific standard of living. Development "of a budget standard thus involves specifying a typical basket of goods and services and pricing it.

The starting point for development of a budget standard is that it is the *consumption* of goods and services that determine the standard of living of households. By varying the scope, quantity and quality of the items included in the basket, a budget standard can in principle be developed for different standards of living. The standards can also be adjusted to the circumstances of different households by varying the quality and price of the items in the basket.

A budget standard will reflect both normative and behavioural factors. Normative judgements are necessary to indicate what the basket of goods should contain, but these will have to be modified to reflect existing patterns of behaviour if the standards are to be relevant to the actual lives and values of Australian households.

Achieving an appropriate balance between the normative and behavioural inputs is itself a difficult judgement that presents a challenge to the budget standards approach. The judgements underlying a budget standard must be made explicit and subject to external scrutiny. It also implies that a budget standard will need to be reconsidered and revised over time as community standards change if it is to maintain its relevance.

An advantage of the budget standards methodology for informing decisions about adequacy and living standards is that its starting point are the *needs* of households. These are articulated, priced and summed to provide a total monetary figure that would allow the consumption basket to be bought at market prices.

A budget standard is thus generally expressed as the amount needed by a particular household on average each week to attain and maintain a prescribed standard of living across a range of budget areas, including housing, energy, food, clothing, transport, health care and leisure.

Although a budget standard has a valuable role to play in assessing adequacy, it must be used in conjunction with other indicators as an aid to policy formulation. Budget standards should not be seen as providing 'the' answer to the adequacy question, but rather as providing an additional source of information that can support decisions about adequacy and household budgeting.

The three main strengths of a budget standard are its focus on needs, the transparency of the approach and its flexibility. A budget standard is constructed by specifying household needs and then translating needs into commodities (and services), commodities into

budgets, and budgets into expenditure and finally to the income required to meet the specified standard.

In light of the sequence of steps involved in developing a budget standard, the assumptions required at each stage can be made transparent and subject to external scrutiny and debate.

The third strength of a budget standard is that it provides a very flexible framework for varying the value judgements, assumptions and data used to construct it in order to assess the sensitivity of the standards to variations in its key elements.

An important criticism of the budget standards approach is that the complexity of the method can convey an unwarranted perception of objectivity whereas in fact the method is highly subjective. A number of commentators have expressed concern over this aspect of the budget standards approach.

Although budget standards require value judgements to be made, so do all other methods for deriving income adequacy standards. This criticism alone is not unique to budget standards. The crucial question is not how to avoid making such judgements, but rather how relevant they are and what degree of acceptance they attract.

A second important criticism is that the development of a budget standard involves an element of circularity. This arises when behavioural data are used to assist the development of the budget standard, because this involves linking the standard to some degree to current patterns of behaviour which are themselves constrained by the resources available to different households. This undermines the ability of a budget standard to provide an *independent* benchmark for assessing income adequacy.

A third weakness of the budget standards approach which became apparent as the research proceeded involves the difficulty of ensuring that the standard of living is being held constant across the different budget areas and between different household types as the standard is developed.

In responding to these criticisms, the research has attempted to build on the strengths of the approach. This has involved making the underlying values and assumptions explicit in this Report by developing a set of statistical spreadsheets which allow the construction of the standards to be replicated with computer software. This allows the assumptions and methods to be varied and the sensitivity of the results to be assessed.

Chapter 2

The research involved designing a project that could build upon overseas budget standards research but also overcome some of the practical limitations encountered by others. An important aspect of the research thus revolves around how the project was designed and the research conducted.

The bulk of the research was conducted within a Budget Standards Unit (BSU) established specifically for this purpose. The budget standards were constructed and revised by a research team working collaboratively and co-operatively within the BSU. The aim of this arrangement was to obtain greater cross-budget consistency than is possible when the separate budgets are developed independently.

- The budget standards research began from the standards recently developed by the Family Budget Unit (FBU) at the University of York in England, which were themselves based upon the standards developed in Canada and Sweden. The FBU standards were then adjusted through a process of 'incremental modification' to fit Australian conditions, values and patterns of behaviour.
- The research benefited from the advice and assistance provided by a Steering Committee comprised of individual experts in the fields of nutrition, housing, clothing needs, family formation, financial counselling and living standards. The Committee also included members from the Australian Council of Social Service (ACOSS), the Brotherhood of St. Laurence (BSL) and from DSS, as well as individuals with detailed knowledge of relevant statistical data from the Australian Bureau of Statistics (ABS), the Australian Institute of Family Studies, the Australian Institute of Health and Welfare and the Australian Consumers Association.
- Another important feature of the research was its use of a series of focus groups to provide feedback on the preliminary results, including which items should be included before the budgets were priced and to advise where revisions were needed in the preliminary costed budgets and what form these should take.
- The focus groups were comprised of individuals belonging to households with similar characteristics to those of the budget standards they were asked to comment on. A second set of groups comprised individuals from households with special needs. Their task was to provide initial guidance on how the budget standards would need to be modified to better suit their circumstances.
- The focus groups were assembled and organised independently of the BSU research team by ACOSS and the BSL, and the meetings took place in Sydney and Victoria, respectively.
- An important source of statistical information used to guide the development of the budget standards was data from the *1993-94 Household Expenditure Survey* (HES) and relevant data collected by ABS and other agencies.
- A set of budget standards have been developed for a range of households at both a *modest but adequate* and a *low cost* standard.
- The modest but adequate standard is one which affords full opportunity to participate in contemporary Australian society and the basic options it offers. It is seen as lying between the standards of survival and decency and those of luxury as these are commonly understood. It attempts to describe the situation of households whose living standards fall somewhere around the median standard of living experienced in the Australian community as a whole.
- The low cost budget standard represents a standard of living which may require frugal and careful management of resources but would still allow social and economic participation consistent with community standards and enable the individual to fulfil community expectations in the workplace, at home and in the community.

- Although it should not be seen as a minimum standard, the low cost standard is intended to describe a level below which it becomes increasingly difficult to maintain an acceptable living standard because of the increased risk of deprivation and disadvantage. In round terms, the low cost budget corresponds to a standard of living which is achievable at about one-half of the median standard in the community.
- Although it is tempting to equate the low cost budget standard with a poverty line, the differing notions underlying the low cost standard and the Henderson poverty line suggest that they are not directly comparable.
- Both the modest but adequate and low cost concepts have been developed in international research on budget standards that has taken place in the United States, Canada, the United Kingdom and several other European countries.
- In order to derive the standards from their broad descriptions, it is necessary to begin from the available expert judgements in each budget area. These articulated norms reflect prevailing community standards, as reflected for example in legislation or regulations relating to housing quality and occupancy standards, or nutritional recommendations developed by the National Health and Medical Research Council.
- In general, such expert norms only exist in areas where there has been active involvement by government in enacting public programs and policies that are guided by regulations and articulated standards. This leaves many areas where there are no normative standards on which to build.
- In these latter areas, new norms have had to be developed as part of the research. Where this has occurred, the relevance of the norms has been tested against the opinion and advice of the Steering Committee and reflect the feedback obtained through the focus group discussions.
- In developing the budget standards, each separate item must be identified and then costed. For those items which last over a period of time (e.g. consumer durables), this involves specifying a lifetime for each item and spreading the initial purchase price over the assumed lifetime. Thus, for example, a refrigerator costing \$1,040 with an assumed lifetime of 10 years enters the budgets at a cost of \$ 104 a year, or \$2 a week.
- By spreading the cost of consumer durables over an assumed lifetime in this way, the budget standards reflect the cost of some items that have already been bought. This is consistent with the notion that the standard of living is held constant, although it does imply that part of a budget standard represents a notional cost of items that are already owned by the household.
- There may be a case for excluding these notional costs of consumer durables in the short-term to reflect the fact that these items are already owned and thus provide services to the household at no current cost. Alternatively, it can be argued that households in need for relatively short periods might be expected to delay replacing their durables, thus extending their lifetimes and lowering the budget standard temporarily.

- The modest but adequate standards have been taken as the starting point from which the low cost standards were developed. This involved including some items of lesser quality or cheaper price, by extending the lifetimes of some items, or by excluding some items altogether.
- A series of simple and explicit 'rules of thumb' were used to guide the development of the standards and avoid making arbitrary assumptions that could not be replicated by others. An example of such a rule of thumb was an 'ownership rule', whereby only those items (or activities or services) owned (or undertaken or utilised) by at least 50 per cent of the population were included in the modest but adequate budgets. A corresponding 75 per cent rule was used to identify 'necessities' (goods, activities and services) for inclusion in the low cost budgets.
- The household has been used as the unit of analysis for which the BSU budget standards have been developed, although some budgets have been costed for each individual and then summed to obtain the household budget. Each household is assumed to contain only one nuclear family.
- The selection of households for which a budget standard has been developed includes 12 of the most common household types: single person households (above and below pension age); couple only households (above and below pension age); couples with one child (of three different ages); couples with two, three and four children; and sole parent households with one and two children.
- Households are constructed from individuals of specified age and sex, namely, females aged 35 and 70, males aged 40 and 70, girls aged three and six and boys aged 10 and 14.
- In addition to varying household size and composition, the budget standards also incorporate variations in housing tenure and labour force status. The housing tenure and labour force status allocations were chosen to reflect the distinction between the modest but adequate and low cost standards, were consistent with the realities of the housing and labour markets and reflect current research and policy interests.
- A total of 26 different combinations of household type, housing tenure and labour force status apply at the modest but adequate standard. At the low cost standard, there are only 20 such combinations, so that a total of 46 different household budget standards have been produced.
- Where geography impacts on the household requirements of goods and services, for example, housing, transport and heating, households living in Sydney have been used as the primary basis for developing budgets.
- The prices used to construct a budget standard must reflect what consumers actually have to pay to obtain each item. The budgets have been priced using 'shelf prices' (or their equivalent) prevailing in *February 1997*.
- In order for the budgets to be repriced later, the budgets include items that are generally widely available and were priced wherever possible at leading Sydney retail stores that have wide networks of branches.

The budgets also include a limited number of concessions, as applying in February 1997, that affect the price of some items to certain groups. Where possible, budgets have been derived both inclusive and exclusive of such concessions. The main areas where concessions have an impact on the BSU budget standards are in housing, health, transport, energy and child care.

Although a budget standard has been developed for only 46 households, these can form the basis for estimating budget standards more generally. This process of extrapolating from a developed budget standard to a standard applying in different circumstances is referred to as the *customisation* of the standards. Customisation of the budget standards can be used to develop estimates for different households at a point in time or for the same households at different points in time.

One aspect of customisation that is of considerable research and policy interest involves using the budget standards to estimate how household costs vary with changes in household circumstances. These incremental cost estimates have significance for the setting of income support payment relativities for different households.

Four specific aspects of the customisation issue have been explored in the research, through a series of special focus group discussions. The aspects addressed were geographic location; the presence of a household member who has a disability; large families; and the costs associated with separated parents who have regular access to their non-resident children.

In the light of the enormous number of judgements and assumptions required to derive a budget standard, the estimates cannot be claimed to be definitive. To illustrate the impact of changing some of the underlying assumptions, sensitivity analysis is required to show the magnitude of some of the effects. This exercise does not undermine the validity of the developed standards but provides a better basis for assessing their potential usefulness.

Chapter 3

The cost of housing is specific to its location. While it is difficult to argue that housing in different locations is of identical quality, there is a clear premium on the cost of housing in the capital cities generally, and in Sydney in particular.

In addition, variations in housing tenure and housing characteristics make it very difficult to establish a single housing standard that can be regarded as representative. Yet this is what is required of a budget standard.

Largely reflecting these problems, several European countries have excluded housing entirely from the budget standards they have developed. Although this approach has not been followed, there is a strong case for treating the housing budgets differently from the remaining budget areas.

The BSU approach has involved calculating the housing budgets for households living in a specific part of Sydney, but using methods that can be replicated in other areas. The area chosen was the Hurstville Local Government Area.

The first stage of development of the housing budget involves establishing a set of normative standards of housing quality and a set of occupancy standards based on the number of bedrooms needed given the size and composition of the household. This is followed by assigning housing tenure (owner; purchaser; public or private renter) to each household and the preparation of a detailed housing profile based on the precise location of the dwelling, its size and overall quality.

Housing costs have then been established by observing, for each specified type of dwelling, market rents in the chosen areas (differentiating between modest but adequate and low cost, as well as between private and public tenants) and by making assumptions regarding the mortgage arrangements of purchasers.

The determination of mortgage costs requires a number of additional assumptions that have a significant impact on the housing budget, although the method allows these to be varied.

The final step in the process involves specifying additional housing costs such as local council rates, water charges, insurance and repairs and maintenance that are associated with owning, buying or renting a property and then aggregating up to derive the total housing budget.

Chapter 4

The energy budget estimates the domestic energy requirements of different Sydney-based households at the modest but adequate and low cost standards and costs them at prices prevailing in the Sydney area in February 1997.

Initially, the energy budget was to be derived from setting physiologically-based normative standards for heating and cooling and estimating the energy required to run each appliance so as to achieve these norms.

Unfortunately, this approach proved impractical, because there is no Australian model that estimates the energy required to maintain the domestic housing stock at a particular temperature. Detailed information on the usage and power demands of each appliance is also not readily available.

In the light of these restrictions, it was decided that the only practical method for estimating the energy requirements of each household was to develop a behavioural model of energy usage and then to estimate its parameters from available survey data.

The method adopted shows how the level of each household's financial resources affects its energy consumption. This enables the estimated effect of resource constraints to be removed when using the model to generate predictions of energy requirements.

Finally, energy consumption is converted into energy expenditure using the prices faced by Sydney households. These prices vary with the amount of energy consumed which is based on the ownership of major household appliances and also with the type of housing and form of housing tenure.

Chapter 5

- The methods used to develop the food budgets are similar to those used by the Australian Institute of Family Studies (AIFS) in its pioneering research on the costs of children. The development of the AIFS food budgets did not, however, take into account actual eating habits as reported through dietary intake surveys to the extent that has been possible in the BSU research.
- In order to develop a food budget, a dietary profile has been developed for each individual in each household according to their age and gender. These profiles encompass a basket of food items designed to meet the dietary requirements for energy and nutrients.
- The food budgets for each individual also reflect the usual food purchasing patterns of Australian families. What people typically eat has been identified through the analysis of national food survey data and this information has been adapted to fit within the guidelines and recommendations for healthy eating.
- The items included in the food budgets have been identified from the shelves of leading food retail stores and priced accordingly. Different brands have been included in the modest but adequate and low cost budgets, the former reflecting 'leading brands' in terms of sales and the latter incorporating 'generic (No Frills) brands' wherever possible.

Chapter 6

- Clothing and footwear are essential items of any household budget, providing not only for warmth, comfort and protection but also allowing individuals a sense of identity and self-esteem in both their private and professional lives.
- Clothing needs thus have to go beyond providing a number of basic items to include an appropriate wardrobe of clothes and footwear which permits individuals to participate in the labour market as well as in the social activities relevant to their age, sex and lifestyle. Including such items in the clothing budget is important as both the modest but adequate and low cost standards are designed to allow an appropriate degree of economic and social participation.
- As in the case of the food budget, the clothing and footwear budgets have been developed separately for each individual in the household. No allowance has been made for economies of scale in the clothing budgets, nor for 'joint consumption' or the sharing of clothes between household members.
- The budgets standards for clothing and footwear developed in other countries, predominantly in the Northern hemisphere, have been useful but are not entirely suitable for identifying the clothing needs of Australians. The BSU clothing budgets have therefore been based on normative assumptions about which items are required under Australian climatic conditions, taking into account seasonal requirements to ensure physical comfort and social ease.
- To assist in the development of the clothing budgets, two small-scale surveys were conducted under the guidance of the BSU to provide an initial indication of the numbers of different items in individual wardrobes. The information collected through these surveys

allowed the UK clothing budgets to be modified to conform to Australian patterns of clothing and footwear ownership and use.

The clothing budgets assume that sufficient clothing is available to maintain personal cleanliness, especially in the case of children where some items are generally changed daily due to the nature and location of activities.

Estimating the lifetimes of clothing items is problematic because of the lack of reliable information on which to base judgements about the functional (as opposed to the purely physical) lifetimes of most clothing items. Decisions in this area have been guided by the recent UK research.

The clothing and footwear budgets have been priced, as far as possible, at leading retail stores and contain items that are generally less susceptible to changes in fashion. An across-the-board reduction has been made to all budgets to reflect cost savings obtained through 'sale' purchases and 'specials'.

Distinctions have been made between the lifetimes and quality of the items incorporated into the modest but adequate and low cost budgets, and each has been priced differently.

The feedback received from the focus groups proved to be particularly helpful in the final development of this budget.

Chapter7

The household goods and services budget demonstrates the complexity of research on budget standards. It also illustrates the severe limitations imposed by the absence of the requisite data. Not only does this budget contain a great range and variety of items, it also overlaps with several other component budgets.

This budget incorporates an extensive number of items, including indoor and outdoor furniture, floor coverings and their maintenance, blinds and curtains, whitegoods and electrical appliances, household linen and soft furnishings, other furnishings and ornaments, gardening tools and equipment, tableware, cookware and kitchenware, cleaning utensils, household durables and non-durables, as well as school fees and charges, child care fees, and the costs of pets, stationery, telephone and postage.

Overlaps occur with the leisure budget because many household items are used whilst engaged in active and passive leisure pursuits. The household goods and services budget must also be consistent with the assumed standards that underlie the housing budget and there are also several links with other budgets. It is important to recognise these and avoid any double counting of needs and the goods and services required to fulfil them.

The enormity of the task is illustrated by the fact that the household goods and services budget contains over 400 separate items for each household. Given that the BSU research covers 46 different household types, this means that the total number of items is over 18,000, and while some overlap occurs for different households, each item has to be identified, provided with a lifetime and then priced.

- Unfortunately, there appear to be no sources of information which would provide shortcuts through the sheer volume of data. Although the HES does this in part, it records the *flow* of expenditures rather than the *stock* of commodities actually owned.
- The HES data are also not detailed enough, since the survey records only generic items like tables, beds, or wardrobes, but not the brand names, types, qualities or price ranges, nor the retail outlets where they were bought. Nor does it provide information on the percentages of households which own particular items—information which is needed if goods and services are to be allocated to households according to generally accepted norms of what is appropriate.
- Because prices vary for any single household item, decisions about which items to include must take account of a range of brands, types, qualities, quantities, sizes and model numbers actually available. For budget standard purposes, it must be a *particular* bed, sofa, or dining suite that is able to be identified with sufficient precision to enable it to be priced.
- Available information used in developing the household goods and services budget includes retailers' price lists and catalogues, supplemented by the 'best buy' recommendations of the Australian Consumers Association.

Chapter 8

- It is not possible to reflect the health costs of all individuals within a single budget. The starting point in developing the health budgets is that they apply to the cost of meeting a representative range of health care needs of those who are *generally in good health*. The budgets are thus not relevant to those who are suffering from any major forms of illness, disability or handicap and do not include the costs associated with treating these permanent chronic conditions.
- One of the rationales for adopting this approach is that it serves as a benchmark against which the health costs associated with deviating from the assumption of 'good health' can be determined. It also provides a basis for the customisation of the health budgets for those who have greater health needs.
- The health budgets do, however, include the cost of those services which are designed to meet the temporary health service needs that even healthy people use from time-to-time. Thus, the budgets in principle include expenditures incurred in using services and products such as prescription medication, pathology, radiology, physiotherapy, podiatry and GP, dental, optometry and specialist consultations.
- The health budget only incorporates costs associated with utilising health services that are actually used by at least 50 per cent of the population of each age and gender combination in any single year. The same benchmark has been used in developing both the low cost and modest but adequate health care budgets, because the use of health care services is considered too important to be allowed to vary with the level of economic resources.
- Identification of the services which satisfy the 50 per cent utilisation rule has been assisted by data on health-usage patterns produced by the ABS, by the Medicare Statistics Unit within the Commonwealth Department of Health and Family Services (DHFS) and by a range of other surveys.
- The impact of the Medicare system in reducing out-of-pocket health costs has been

factored into the health budget calculations because of its importance as a universal scheme of health insurance which provides substantial assistance to all who use medical services, regardless of income level.

- Bulk-billing has been taken into account in estimating medical costs, including services provided by various health professionals. Those services that are predominantly provided on a bulk-billing basis are considered to be free of charge at the point of use in the health budgets.
- Two versions of the modest but adequate budget have been derived both with and without allowance for private health insurance cover. Similarly, the low cost health budgets have been derived both with and without including an allowance for New South Wales State Government dental and eye care benefits.
- In relation to the usage of dental services, a more explicitly normative approach has been used, reflecting the emphasis given in the dental profession to the importance of preventative treatment. The frequency of visits to the dentist and the kind of treatments received have been specified according to expert advice on appropriate norms.

Chapter 9

- The transport budget is based on a combination of normative judgements and behavioural data. It is applied to households living in Sydney, and where there is a need to be specific, living in the Hurstville Local Government Area.
- The pattern of observed transport costs amongst Australian households depends on whether the household owns a car or not. Car-owning households spend substantially more on transport, reflecting the purchase price of the car and the costs of insurance, registration and appropriate servicing and repairs. Running costs, including fuel, oil, road tolls, parking costs and some repairs, do not differ substantially from public transport costs.
- The transport budget is thus very sensitive to whether or not the household is assumed to own a car. Because the majority of Sydney households are car owners, it has been assumed that each BSU household owns a car and uses it for most of their transport needs.
- The transport budget has been developed by specifying the detailed travel needs of each household and costing the total distance travelled each week. This has involved making a number of specific assumptions about the travel-related aspects of the lives of each household, taking account of their proximity to major and local shops and services, the number of shopping and other trips made by each household and the ease of access to trains and bus services (public and private).
- It has also been assumed that household members travel the same distance to work as the average Sydney worker. Unemployed household members have been allocated trips to the local DSS office, to the Commonwealth Employment Service and to undertake job search activities such as attending a job interview.

The BSU leisure budget has been used to guide decisions concerning travel to spectator sport and cultural trips each year by each household member. The frequency and location of vacations allocated to each household in the leisure budget also affect the distance travelled and hence the transport budget. Finally, allowance has been made for regular trips to visit family and friends and for an occasional evening out.

Chapter 10

At first sight, expenditure on leisure might seem to be something of a luxury. This is not a problem when determining the level of leisure expenditure at the modest but adequate standard, although the case for including expenditure on leisure activities in a low cost budget standard needs to be argued. Its inclusion at the low cost level rests on the assumption that that standard allows social and economic participation.

This observation, along with the fact that active leisure contributes to good health and mental and social well-being, suggests that incorporating an allowance for leisure even in low cost budgets is appropriate if the budgets are to represent the actual circumstances of Australian households in the 1990s.

The BSU leisure budget has been formulated on the basis that individuals and families should be able to participate in 'normal' and healthy social and physical pursuits. Survey data on the leisure activities of Australians have been used extensively in determining which activities are considered 'normal'.

Where the actual amounts of physical activity fall below the levels recommended for health, the amount of active leisure participation allowed for in the budgets has been increased and passive leisure (principally the time spent watching television) has been correspondingly reduced.

The leisure budget has thus been predominantly derived from behavioural data on the patterns of actual leisure activity, and has also been informed by normative criteria relating to good health.

This has involved developing a sophisticated statistical model of time-use and estimating its parameters using ABS survey data. The estimated model has then been used to predict the time spent by individuals with varying characteristics in the different forms of active and passive leisure. Once the leisure activities have been identified, they have been combined with the leisure goods involved with participation in each leisure activity to estimate the cost associated with the participation in each type of leisure.

Again, a 50/75 per cent participation rule has been used to identify which activities, such as spectator sports and attendance at cultural events, to include as part of each individual's leisure budget.

Because experts in child development emphasise the importance of play for children, the leisure budget has made allowance for the purchase of children's toys. The children of sole parents have been assigned the same leisure activity allocations as other children, so that they are able to participate in the same range of activities as children in two-parent families.

Chapter 11

The personal care budget includes items that people commonly purchase for their own grooming. Although many of these items are not *essential* for survival they are products which are used for personal hygiene purposes, for maintaining personal appearance, for prevention of disease and to improve employment opportunities and encourage social interaction and participation.

There are obvious links between the personal care and health care budgets and the dividing line between them can become blurred. In the light of the fact that the BSU health budget reflects the assumption that individuals are in 'good health', an allowance should also be made for the cost of achieving appropriate levels of personal care. This is also broadly consistent with the conceptualisation of good health in relation to diet which underpins the food budget.

The items included in the personal care budget reflect the norms that currently prevail in Australian society in regard to personal hygiene standards and grooming. Although normative information on personal care for people living in Australia is limited, there are even fewer behavioural data available in regard to the personal care habits of Australians.

The justification for inclusion of some of the personal care items has been based on recommendations developed over time by DHFS (and its predecessors). Advice has also been sought from people working in the personal grooming industry, including beauty therapists and hairdressers, market research companies and the available literature on personal care products.

The feedback received from the focus group participants also proved to be very helpful.

Chapter 12

This chapter brings the nine component budgets together to form the indicative modest but adequate and low cost budgets for each of the 46 BSU household types. These are difficult to summarise because they depend crucially on the precise circumstances of each household and the characteristics of each household member.

By way of illustration, the modest but adequate budget standard for a private renter couple with two children (a six-year-old girl and a 14-year-old boy) is just over \$817 a week. The corresponding budget for a sole parent with one child (a six-year-old girl), also renting privately, is just under \$520 a week. The modest but adequate budget for a 70-year-old woman who owns her own home is \$280 a week.

The low cost budget standards for these same three households (assuming the same housing tenure as for the modest but adequate budgets quoted above) are \$602 a week for the couple with two children, \$372 a week for the sole parent and one child, and \$215 a week for the female pensioner.

Overall, the budget standard estimates show how sensitive housing costs at the low cost standard are to variations in the assumed housing tenure within each household type, and how housing costs for a given tenure vary between the different household types. The comparisons illustrate vividly the role of housing costs in the overall BSU budget standards

and their sensitivity to whether the household is assumed to be a private renter, a public housing tenant, a purchaser or an outright owner of their home.

For single adults and couples (aged or non-aged), the low cost budgets are around 77 per cent of the modest but adequate budgets, while for sole parent households the relativity is around 71 per cent and for couples with children it falls between 67 per cent and 80 per cent according to the number of the children and their age. For both couples and sole parent households, there is a general tendency for the relativity to decline as the number of children increases.

These relativities are somewhat higher than expected, and suggest that the description of the low cost standard as being sufficient to 'allow social and economic participation consistent with community standards' is somewhat at odds with what is practically achievable at only half of the median living standard in the community as a whole.

The comparisons of the budget standards with the distribution of actual expenditures for similar households (as recorded in the HES) show that the distributional quintiles into which both the low cost and modest but adequate standards fall differ across the different household types. These comparisons also suggest that many households do not currently appear to have the resources required to achieve the low cost standard.

The comparisons between the budget standards and the absolute expenditure levels reveal that the areas where the BSU budgets differ most consistently from the HES average expenditures for each household type (aside from housing, where the comparisons vary considerably across the different household types) are in the areas of health, transport and leisure and, in a number of instances, household goods and services.

The remaining budget areas either produce figures that are reasonably close to the HES average expenditures or show no consistent pattern of deviation from them. The energy, clothing and footwear and personal care budgets are all fairly close to the HES averages, while the food budget is somewhat below the HES figure in some cases.

If, for illustrative purposes, durable goods are defined to include all items with an assumed lifetime of one year or more, the low cost budget standard for a couple with a six-year-old girl contains 623 separate items, of which almost four-fifths have a lifetime of one year or more. The budget areas where the number of durables are most important are clothing and footwear, household goods and services and leisure.

Sensitivity analysis conducted on the budget standards for four household types indicates that the percentage of the total low cost budget standard accounted for by expenditure on durable items varies between 15.5 per cent and 22.8 per cent. Exclusion of the cost of durables from the budget standards would thus cause them to decline by this degree.

If the lifetimes of all durable items is assumed to be double that actually used in developing the budgets, the low cost standards for the same four household types would decline by between \$28 and \$40 a week, or by between eight per cent and 11 per cent.

- The modest but adequate budget standard for the single female in full-time work is \$484.40 if she is assumed to be a private renter or \$471.60 if she is purchasing her home. These compare with the updated (to February 1997) estimates of \$592.70 a week for the median before tax earnings of all female employees of \$592.70, and \$584.10 a week before tax for non-managerial employees.
- Comparisons show that the low cost budget standards are generally above the Henderson poverty line—sometimes markedly so. When the low cost budget standards are compared with the poverty lines (including housing costs) the largest differences occur for single parent households (renting privately) and couple households with children—particularly where at least one adult is not in the labour force.
- When the low cost budget standards are compared with the (20 per cent) higher poverty line used to identify those who are 'rather poor', the two measures are quite close together, although there are also some notable exceptions. Overall, these comparisons tend to confirm that the low cost budgets correspond to a standard of living that is above the austere poverty standard represented by the Henderson poverty line.
- Comparisons between the low cost budget standards and the levels of social security assistance prevailing in February 1997 depend critically upon how housing costs are treated. If no allowance is made for these, the comparisons indicate that the low cost budget standards lie above the level of social security payments, but also that there is a considerable diversity in the extent to which the two measures correspond to each other.
- Once housing costs (rent) are removed from the budget standards and the maximum rate of Rent Assistance is deducted from DSS payments, the two indicators are much closer together in the majority of cases. Aside from the single female household, the net-of housing-cost comparisons reveal that the low cost budgets are within 10 per cent of the level of DSS payments in all but two cases, often within five per cent.

Chapter 13

- The role of the focus groups in the BSU budget standards project was threefold: to provide comment on the composition of the preliminary budget standards and to suggest areas of improvement; to discuss the costed budget standards and to advise where amendments were required; and to provide guidance on aspects of the customisation of the basic standards.
- In practice, the experience with the focus groups shows it to be an effective way of obtaining feedback on the costed budget standards—a process which involves giving the kind of informed and focused consideration to a complex set of calculations through an interactive and relatively unconstrained group discussion of the standards.
- The focus group discussions contributed significantly to the development of the BSU budget standards research. The two main areas where focus group input was particularly valuable were in identifying aspects of the preliminary budget standards that required further consideration, and in the insights provided into how the budget standards relate to the actual lives of Australian households in the late 1990s.

- There is a third area where the contribution of the 'special needs' focus groups have been valuable. These discussions provide a useful basis for considering how the budget standards methodology might be extended to cover such cases, although there are doubts over whether or not it will ever be possible to represent a highly diverse set of needs in a single representative budget standard.
- All focus group participants saw the BSU budget standards as a useful basis from which to consider their own specific circumstances and costs. There would appear to be considerable potential for using focus group discussions as the basis for further refinement of the budget standards and as a vehicle for gaining legitimacy for the standards within the community.

Chapter 14

- A key goal of budget standards research is to produce budgets that describe comparable living standards for people in different household types. By comparing the budgets of households of different composition but similar living standards, it is possible to address questions such as the impact of household size on costs, the costs of adults and children, the costs of sole parenthood, the cost of employment or job search and the impact of age and gender on household costs.
- A range of alternative methods can be used to estimate the various components of household costs from a set of derived budget standards. Each method approaches the issue somewhat differently, although they all derive incremental cost estimates from two (sometimes more) separate budget standards.
- This feature of each of the methods depends crucially upon the budget standards for different households corresponding to the same standard of living. Ensuring that the standard of living is constant across different commodities and different households presents a formidable challenge to the budget standards methodology.
- There will, thus, always be some uncertainty surrounding whether the difference in the derived budget standard measures the cost differential involved in achieving the *same* standard of living, or the cost differential associated with attaining *different* standards for the different households.
- The deductive method used in the research estimates incremental household costs by deducting the budget standard of one household from that of another household, the difference being attributed to the different characteristics of the two households.
- The budget standards increase significantly with household size. For all housing tenure categories, the cost of the first person in the household is always substantially above the cost of subsequent people, although for larger households, the increase in costs with the number of people in the household is virtually constant.
- A striking feature of all of the budgets is the low relative estimated costs of the second adult. For most household types, couples are estimated to need between 30 per cent and 40 per cent more than a single woman to reach the same living standard. If the calculations are repeated net of housing costs, although the incremental cost of the second adult changes

very little, the cost relativity increases to between 45 per cent and 62 per cent. These ratios compare with the equivalence scale implicit in the Australian pension system, where couples receive around 67 per cent more than single adults.

- Housing costs are the main reason why the total budget standards decline significantly with age. If housing costs are excluded, the difference in costs is much reduced, although there is still a tendency for costs to decline with age.
- The addition of a three-year-old girl to a low cost childless couple (renting privately) leads to an estimated increase in the household budget of \$84 a week if the wife is assumed to be looking for work. This is equivalent to 22 per cent of the budget estimated for a childless couple in the same circumstances. If, rather than a three-year-old girl, this couple had a six-year-old girl, then she would cost \$101 a week. The cost would be higher still at \$126 a week if the child was a 14-year-old boy.
- As might be expected, the absolute level of child costs for households at the modest but adequate standard is greater than for the low cost households. Due to the costs of formal child care, the increase in costs is most marked where a household has a three-year-old child and both parents are in full-time employment. In this case, the cost of the three-year-old girl in a private renting couple is \$164 a week, or 32 per cent of the budget of the childless couple. The cost of a six-year-old girl is estimated to be \$139 a week, and that of the 14-year-old boy \$155 a week. Child care and school-related costs are generally very important in determining how the pattern of child costs vary with age.
- The costs of various combinations of up to four children of different ages are presented in tables in the Report. In broad terms, the data suggest that there are substantial economies of scale in household costs as the number of children in a household increases. The exact level of these economies is dependent upon the ages and sex mix of the children.
- The Report estimates the cost of sole parenthood. However, having given careful consideration to the validity of the deductive method as applied to estimate the cost of sole parenthood and the issues surrounding it, the estimates of the costs of sole parenthood presented are subject to several very important reservations.
- One of these concerns the appropriateness of applying the deductive approach to estimate the costs of sole parenthood. In this case, the method relies upon the manipulation of the budgets of *four* different household types—single adults, sole parents and couples with and without children. It appears that the budget standards methodology is not able to produce reliable estimates of the costs of sole parenthood.
- A methodology is developed which can be used to provide approximations of budgets for a range of new household types by extrapolating from the BSU standards. Providing that an appropriate degree of caution is exercised, this methodology can be used to extend the budget standards to other household types that are similar, but not identical, to those included in the present study.

Chapter 15

- The dimensions of budget customisation considered relate to differences in household size and composition, variations in geographic location, special needs, adjustment to reflect changes over time in prices and living standards and the potential for using the budget standards framework to develop an affluence standard.
- An important point to emerge from the Victorian focus groups who lived outside of Melbourne (particularly those who were living in a small rural town) was that different places of residence can produce not only different lifestyles and prices, but also differences in attitudes and behaviour which can impact in significant ways on a budget standard.
- There are three alternative methods for updating the budget standards over time. The first approach would involve repeating the whole budget standards exercise on a regular basis. A second approach would update the budgets by repricing them on a regular basis. A third approach involves adjusting the budget standards in line with information that is already available on price movements in the economy.
- The first method" would be time-consuming and expensive and is not a practical alternative for implementation more frequently than every five years or so. The second method would still be a large, though more manageable task which could be undertaken every two years or so. In the short-term, the third method offers a practical and efficient means of adjustment of the budgets.
- The most obvious indicator of movements in Australian prices is the Consumer Price Index (CPI). The use of the CPI to update the budget standards over the short-term would involve using the component indices for Sydney, as this corresponds most closely to the prices used to develop the BSU budget standards. Ideally, the CPI indices should be adjusted so as to conform with the definitions which underlie the budget standards definitions.
- The changes in the CPI due to be introduced later this year (particularly those relating to the treatment of housing) raise complex issues which need to be addressed, in consultation with ABS itself.
- The main problem confronting any attempt to develop an affluent budget standard arises from the greatly-expanded range of choices available to those who are affluent. It would be very difficult to identify a limited range of goods that are *representative* of the budgets of affluent households.
- Although these problems could in principle be overcome, further refinement of the low cost and modest but adequate standards should take priority over trying to develop an affluence standard that might be beyond what the budget standards methodology can deliver.
- The main limitation of the budget standards method that emerged from the research is the difficulty in ensuring that the different component budgets for a given household and the total budgets for different households are set at the same standard. The main limitation of the BSU approach undoubtedly surrounds the housing budget.

- Overall, however, the 'incremental modification of existing overseas budgets' has proven to be a very useful (and cost-effective) strategy for developing a set of indicative Australian budget standards.
- The budget standards presented in this Report still need a good deal more exposure among the general community before they can be viewed with confidence as having the legitimacy required to provide a solid basis from which to exert an influence on policy.
- This process of refining the BSU budget standards should involve several different groups, including experts in each budget area, policy-makers in DSS and a range of other areas, and potential users of the budget standards, including State Government and community and welfare agencies involved in providing advice and assistance to low income families. The BSU budget standards are an important platform on which further work can build.

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CHAPTER 1: INTRODUCTION TO THE PROJECT*

1.1 Introduction

It is now almost 90 years since the first elements of the Australian social security system were introduced. Since that time, the scope and nature of the system have evolved in response to changing economic and social pressures and to changes in community values, government priorities and available resources. Although that process is still continuing, the social security system now provides financial assistance to many Australians living in a wide variety of circumstances.

Over much of the last two decades, high and sustained levels of unemployment have placed upward pressure on the social security budget. This has been reinforced by other upward pressures on expenditure, associated with the ageing of the population and the increased incidence of contingencies such as sole parenthood and disability. Recent changes in the Australian labour market have required a complex array of policy responses, many of them in the social security area.

In these circumstances, it is inevitable that governments will raise questions about the need for existing programs and look for ways to use scarce public sector resources more effectively. The quest for efficiency, effectiveness and economy in the utilisation of resources in the public sector has affected the whole spectrum of government activity, including all aspects of social security. But it has proved difficult to achieve substantial savings in the social security budget without adversely affecting the disposable incomes of those who are already most vulnerable and in greatest financial need.

Despite this, much has been achieved in attempting to ensure that resources are directed to where needs are most pressing, as reflected in the increased efforts to provide a more targeted system. However, continued attempts to increase targeting ultimately give rise to other problems, including undesirable effects on incentives to work and save, and on the overall complexity and hence administrative manageability of the system as a whole.

The provision of adequate levels of social security assistance has been at the centre of debate over the merits of the system since the age pension was introduced almost 90 years ago. Although it is not possible to provide a simple and comprehensive definition of the concept of adequacy, its general meaning refers to the ability of social security (and other) cash payments to meet the *needs* of those who must rely upon them as their main—often their only—source of income.

Unless it is possible to specify in some concrete manner the standards of living that correspond to differing levels of income, governments have an incomplete basis for achieving an appropriate balance between adequacy and other competing aims of the social security system, notably the minimisation of undesirable disincentive effects, unwarranted complexity and unsustainable cost.

Unless standards of adequacy are available to assist governments to make choices between these competing policy objectives, improving the adequacy of payments may be sacrificed in favour of other goals for which measures are more readily available. Adequacy standards also have an important role to play in assisting governments to establish the appropriate relativities

between the levels of assistance paid to those in differing circumstances—payments to those above and below pension age, for example, or to families with different numbers of children.

In the past, much of the adequacy debate in Australia has centred on issues associated with the measurement of poverty and the strengths and limitations of the poverty line. Most poverty researchers have used the poverty line proposed by the Commission of Inquiry into Poverty (1975)—the Henderson poverty line—to document the trend in poverty. Yet as Ian Manning observed some time ago, there are many uses to which a poverty line can be put and measuring poverty is only one of these (Manning, 1982). Reflecting this perspective, welfare advocates have often used comparisons between the level of social security payments and the same poverty line to argue the case for increased benefits.

The fact that there was no alternative to the Henderson poverty line has provided a rationale for its continued usage, but one which has become increasingly tenuous with the passage of time. Its critics have argued that it no longer provides a useful benchmark for determining the adequacy of social security payments, if it ever did so, while its proponents have become all too aware of the many changes that have taken place in Australian society and the Australian economy since the pioneering work developing the poverty line was undertaken by Ronald Henderson and his colleagues in the 1960s (Henderson, Harcourt and Harper, 1970).

As long ago as 1980, the then Minister for Social Security, Senator Margaret Guilfoyle, expressed her reservations over the Henderson poverty line in the following terms:

'If we are to read in our newspapers and hear through our media, as we do at such frequent intervals, that certain numbers of people in this country are living below the poverty line, it seems to me that there ought to be some contemporary measurement of what would be an appropriate poverty line below which no person in this country should be allowed to fall.' (Guilfoyle, 1980, pp. 408-409)

Similar sentiments have been expressed more recently by one of her successors, who noted that:

'The problems with the Henderson poverty line are well known. It is remarkable that a measure set in 1966 at the then basic wage plus child endowment for a single earner couple with two dependent children, using equivalence scales derived from a 1954 study in New York City, still persists. The arbitrary nature of such a calculation is all too obvious...the Henderson line is now clearly inadequate as a tool to help us accurately characterise the problem and to make judgements about the adequacy or otherwise of our payments.' (Baldwin, 1995, pp. 7-8)

These concerns highlight the need to consider alternative methods for developing income standards which are relevant to Australian circumstances, customs and values in the 1990s. These may provide the basis for eventually replacing the current poverty line, or they may produce other adequacy standards which will complement it. The important issue, at least initially, is that research is done to investigate the value of alternative approaches to income adequacy, including exploring what adequacy actually means—in theory and in practice.

Following a Ministerial announcement in 1994 (Baldwin, 1994), the Department of Social Security (DSS) began working towards the development of a framework for establishing a

series of benchmarks of adequacy for social security payments. A number of alternative approaches to the adequacy issue were reviewed and compared in a report released in 1995 (DSS, 1995).

The authors of that report saw merit in pursuing two parallel lines of inquiry. The first of these, termed a *descriptive approach*, would focus on identifying the incidence of deprivation amongst DSS customers using a series of outcome measures within a comparative framework. It was argued that this approach should provide important information on which payments are least able to prevent material deprivation in its various dimensions among those in receipt of social security payments.

This work, it was argued, should be complemented by a second *prescriptive approach* involving the development of a series of normative budget standards for Australia. This second approach was seen as serving a number of roles. In particular, the DSS report argued that:

'...the Budget Standards approach appears to offer considerable scope for contributing to the development of contemporary measures [of income adequacy] reflecting Australian circumstances...[it] also has a significant role to play in the preferred framework due to its focus on the income requirements of households and the consumption trade-offs facing low income earners. It also offers a unique opportunity to contribute to the ongoing debate on income poverty in Australia.'

(DSS, 1995, p. 31)

The research reported here represents an attempt to apply the budget standards methodology to produce a set of indicative standards that can inform decisions regarding standards of adequacy—absolute and relative. The budget standards approach involves specifying what households need in a particular time and place, to attain a particular standard of living. It involves working out the cost of living by pricing a typical 'basket' of goods and services that corresponds to the underlying living standard. The level at which the standard itself is set can be varied so that, in principle, budget standards can be derived at different levels.

The approach has recently been described in the following terms by the national consumer Council in the United Kingdom:

'Budget standards often aim to be complete, to cover everything—down to the plug in the kitchen sink. Such standards are necessarily very detailed. Some aim to be accurate not only in the short term, but also over a longer period. So they also include replacement costs—of a new fridge, for instance. Sometimes, when the primary aim of the budget standard is as a budgeting or debt counselling tool, it has blank categories to allow individuals to write in for themselves their individual costs. This is a way of covering variable and special needs, such as those relating to disability. Budget standards always incorporate food needs, usually meeting nutritional guidelines recommended by government. They can be based on individuals or on household/family types. A standard based on individuals gives greater flexibility but can be misleading as households usually achieve economies of scale. Different lifestyles, too, can lead to different expenditure and consumption patterns: a single person's consumption

is quite different from that of an adult living with children.' (UK National Consumer Council, 1995, pp. 3-4)

This description not only provides a useful summary of the nature and role of budget standards, it also raises some of the issues that have to be resolved in developing a budget standard. There is no single correct way of doing this, and the methods used in different countries vary.

The use of budget standards to inform the adequacy of income support payments, the study of poverty and the whole question of living standards has emerged as a major thread of living standards research in many countries. The use of budget standards in Australia also has a long history (as explained further below), although over the post-war period their scope has been limited.

In light of this, in combination with the fact that there is no single agreed budget standards method, the standards developed here are indicative only. The adjective is important. The estimates presented later take the budget standards method far further than it has been taken before in Australia, but there are many areas where further refinement is possible. This is not intended to in any way denigrate the research reported here, but rather to alert users of budget standards to the fact that they should not be seen as 'set in stone' for ever, but rather as a set of indicators that can be constantly refined as new methods and data become available.

1.2 What Are Budget Standards?

Budget Standards and Needs

A budget standard represents what is needed, in a particular place at a particular point in time, in order to achieve a specific standard of living. Much of the Australian research on living standards has focused on using income (amended in various ways to incorporate, for example, the value to households of the benefits of the 'social wage') to measure the standard of living (Saunders, 1994; Johnson, Manning and Hellwig, 1995).

Yet as writers such as Watts (1980) and Atkinson (1995) have pointed out, people's standard of living is determined as much by what they *consume* as it is by what they *receive* as income in various forms, while others have observed that the standard of living is ultimately multi-dimensional and cannot be captured in any single statistic or indicator (Brownlee, 1990; McDonald and Brownlee, 1994).

Budget standards start from the proposition that it is the *consumption* of goods and services that determines the standard of living. The approach thus involves specifying the particular goods and services required to achieve a specific living standard and then costing them at market prices (inclusive of any indirect taxes but net of any subsidies or concessions).

A budget standard represents the price of a particular basket of goods and services which corresponds to a specific standard of living. By varying the scope and quality of the goods and services included in the basket, budget standards can in principle be derived for different standards of living corresponding to different levels of well-being. They can then be adjusted to the circumstances of different households and differing standards of living by varying the quality and price of the items included in the basket of goods and services.

Although the standard of living depends upon the *consumption* of goods and services, information is generally only available on the price of *commodities* (or services). Furthermore,

the costs of living which households have to meet from their incomes refer to the amounts of *expenditure* required to purchase a given basket of commodities. Furthermore, survey data are generally only available on the expenditures incurred by households in purchasing commodities.

This means that, in deriving a budget standard, particularly if the method is to be based on information on what households actually do buy, it is necessary to have a method for converting from the observed patterns of expenditure on commodities to the value of the services that households receive from the consumption of the goods they purchase. How the budget standards method deals with these issues is explained at length later.

Bradshaw (1993a) explains what is involved in developing a budget standard:

The task of those who draw up a budget is to decide what *items* are included in the budget, what *quantity* of items are included, what *quality* the item should have, what *price* should be given to it, and where items are purchased intermittently or occasionally, what *lifetime* should be attributed to them.' (Bradshaw, 1993a, p. 3; italics in the original)

This information allows an estimate to be derived of both the range and quality of the items corresponding to a particular standard of living and the cost of achieving that standard—the budget standard.

The great advantage of the budget standards method in the context of assessing adequacy is that the method takes as its starting point the *needs* (more accurately, the *consumption needs*) of households which are identified and priced as the budget standard is developed. Once they are fully developed, budget standards are generally expressed as the monetary amount required, on average each week, to attain and maintain a prescribed standard of need—satisfaction across each of the budget areas (food, clothing, housing, etc.) from which the standards are derived.

It is also possible, however, to use the budget standards to explore what this monetary amount can purchase in terms of the various items that are incorporated into the development of the standards. Thus, for example, it is possible to analyse the actual pattern of food expenditures of households with incomes close to the derived budget standard to assess whether or not they meet the nutritional standards on which the budget standard is based.

The first main strength of the budget standards methodology is thus that it begins by identifying needs and costing the budgets required to satisfy them. The scope of these needs can be defined either narrowly to include only basic nutritional, housing and clothing requirements, or more broadly to encompass what is needed to actively participate in society, which would require the inclusion of leisure, transport and a broader range of household goods and personal items.

The second, equally important strength of the budget standards approach is that because the methods used to identify the needs and translate them into budgets have to be considered meticulously before the budgets can be drawn up, it is possible to make these transparent, so that others can form their own judgements concerning their appropriateness. Furthermore, in doing so, the underlying assumptions and normative judgements can be made more readily subject to debate and, where necessary, revision.

This feature of budget standards makes them realistic, in the sense that the items that underlie them are identified, specified and costed. These features of budget standards have been identified by Townsend (1997) as making them practical and specific, and thus publicly and politically plausible.

A major limitation of the budget standards method rests on whether or not it is possible to draw the distinction between *needs* and *wants* which implicitly underlies the approach and provides much of its intuitive appeal. Drawing such a distinction in practice raises fundamental problems which become all the more problematic once it is acknowledged that household *preferences* influence the actual *choices* made with regard to the satisfaction of both *needs* and *wants*.

In the minds of many, the distinction between needs and wants revolves around the idea that needs are objectively determined whilst wants are implicit to individuals. Added to this is the idea that without the satisfaction of needs it is not possible to function effectively, whereas a failure to satisfy wants may be a source of internal dissatisfaction, but does not affect one's ability to function in society.

Translating these notions into practice is a formidable task—possibly an impossible one. It may be true, for example, that ownership of a car is not essential in Australia today, but to what extent is it possible to function fully in society without one, particularly where there are children present? Does the ownership of a car represent the satisfaction of a need or a want? How, in general, can needs be distinguished from wants, and who is to decide, and on what basis, where the dividing line between them should be drawn?

It has been argued that the process of developing budget standards is less problematic when the standard being developed is one in which there is little or no scope for satisfying other than 'basic needs'. At higher standards of living, it is necessary to take account of both needs and wants and the degree of choice which people have over how much they consume of each item makes the task of drawing up a single budgetary representation more problematic. Such concerns explain the reservations with which some commentators have with budget standards once they are applied to other than subsistence concepts of need or adequacy.

Underlying such views is the idea that it is possible to determine subsistence levels of living more accurately and with greater scientific precision than is the case with higher standards of living. It is not just that account has to be taken of the impact of choice, but also that the whole process of specifying the standards moves outside the realms of objectivity into the dangerous terrain of normative judgement and relativism. However, this dichotomy between 'objective' and 'subjective' approaches to the measurement of poverty is in fact false, as is that between 'absolute' and 'relative' concepts of poverty.

Almost 30 years ago, the American social scientist Martin Rein demonstrated that the distinction between subsistence and relative concepts of poverty is fundamentally flawed (Rein, 1970). He showed how the Orshansky poverty line embodied not only scientifically derived estimates of nutritional requirements, but also judgements about nutritional need and, because the food budgets were multiplied up by the inverse of the proportion of the average *observed* budget spent on food, also reflected prevailing community standards and behaviour. In short, Rein argued that the subsistence definition of poverty is 'arbitrary, circular and relative' (Rein, 1970, p. 60).

The issue of circularity in the reasoning underlying the development of budget standards has been given recent emphasis by Townsend (1997) who sees this as the major weakness of the approach. As Townsend argues:

'The transformation of actual amounts and patterns of household expenditure into "desirable" or "necessary" amounts and patterns expenditure should use criteria which are scientifically independent of expenditure, otherwise the reasoning is tautological. It is important to investigate empirically "needs" independent of budgetary resources and outlay.' (Townsend, 1997, p. 64)

Townsend also raises concerns about the fact that budget standards tends to focus too much on the resources required to purchase market commodities, to the exclusion of collective needs for services and utilities and to fulfil social obligations, although it is possible to incorporate these factors when drawing up the budgets.

Partly as a result of the influence of people like Rein, there is now widespread acceptance of the idea that *any* adequacy standard or poverty line must reflect value judgements (Saunders, 1995). It follows that the derivation of budget standards is also an exercise which involves judgement and, therefore, that this feature is not itself sufficient to discredit the budget standards approach to adequacy. On the other hand, it also serves to warn against the difficulties of the task of developing budget standards and the dangers involved in claiming too much for them.

However, because the estimation of budget standards is a detailed task which can only be undertaken in a systematic and sequenced manner, the value judgements made at each stage in the process can be made explicit. This process allows the judgements to be more visible and transparent, and thus (in principle at least) more readily assessed and debated and, where necessary, reconsidered and revised.

Through this process, it is possible to ensure that the judgements are acceptable in, and are relevant to, a specific cultural context. Finally, it is possible to vary the judgements used to calculate budget standards, separately or in combination, in order to check what difference this makes to the budget standards themselves.

While recognising the limitations outlined above, budget standards have the potential to measure the standard of living within a framework which can be tailored to particular circumstances, in relation not only to family situations, but also to account for variations in time and place. Because of this flexibility, budget standards have the potential to provide a benchmark against which living standards can be compared at any level and the adequacy of the incomes required to achieve those standards can be judged (Saunders, 1995).

Two extremely important features of the role of budget standards in assessing adequacy emerge from this discussion. The first is that since the budget standards approach is not the only method for assessing adequacy, it needs to be used in conjunction with other approaches in order to be of maximum value. The second, equally important factor is that budget standards should not be seen as providing 'the' answer to the adequacy question. Rather, their role is best understood as providing a source of information on the kinds of considerations that will inform decisions regarding adequacy and related living standard issues.

The many judgements that have to be made in developing a budget standard must themselves be open to comment and revision if the standard itself is to reflect a set of judgements that can

be embraced by the community as a whole. This requires the standards to be debated by all those who have a view to express, not just by the 'experts'.

This is a dynamic process that will take time to work through, but it will only be after the budget standard can be shown to have withstood the rigours of such an examination that its role in influencing adequacy decisions should be contemplated. What needs to be asked is whether or not budget standards are the best vehicle for identifying these underlying judgements and testing them against behaviour and community opinion.

Expenditure and Consumption

In light of the fact that budget standards estimate the cost of buying the commodities needed to attain a given standard of living and are themselves informed by the actual purchasing patterns of households, it is not surprising that the underlying framework within which budget standards have generally been developed is the same as that used for the collection of data on household expenditures.

A second reason for ensuring consistency between the budget standards framework and that used in household expenditure surveys relates to the need to update budget standards over time. Given the time and expense involved in developing a budget standard, it is not feasible to repeat the exercise too frequently. Budget standards do, however, need to be adjusted to reflect movements in consumer prices, as well as to reflect variations in the judgements and community norms on which they are based. Whilst the latter dimension involves re-building the standards from scratch to some extent, it is easier to adjust the budgets upwards in line with price movements directly in the short run—as many countries that already have budget standards already do.

Such adjustment is far easier if budget standards adopt the same definitional framework as that used to construct the Consumer Price Index (CPI), particularly in relation to how the component budgets are specified. Given that the CPI itself uses the same framework as the household expenditure survey (from which the price index weights are derived) there is clearly much to be gained if budget standards themselves are broadly consistent with the same framework.

One area where there are problems in converting from data on expenditures to the implied levels of consumption that determine the standard of living relates to those goods that are only used up gradually over time. Where the length of time involved is not too great, there is unlikely to be any significant error induced by treating expenditures and consumption as identical. The sums involved are simply too small and will in any case average out over time for most households.

However, the same is not true for durable goods which often have a very long lifetime and are thus purchased infrequently. In these cases, it is important to distinguish between the expenditure associated with acquiring the good and the value of the flow of services that are associated with its use. There is clearly little sense in assuming that a household's standard of living increases dramatically in the week that a new car is purchased and then plummets the following week, as would occur if actual expenditures were used to measure the standard of living.

Given that it makes sense to convert expenditures on consumer durables into an estimate of the flow of services associated with their use, the question arises of how the service flow is to be valued. The conventional budget standards approach involves assigning a lifetime to all durable

items and amortising their initial cost over that assumed lifetime. Thus, for example, a refrigerator that costs \$1,040 and has an assumed lifetime of 10 years involves an annual cost of \$104 or \$2 a week and it is this amount that enters into the budget standard.

An alternative approach, which has been described elsewhere (for example, in the UK National Consumer Council Report cited earlier) as corresponding to a short-term budget standard involves assuming that the household has already acquired the good and is thus able to obtain the service use without incurring any additional expenditure.

In other words, in relation to already established households that have acquired all the durable goods they need, a given standard of living can be attained, in the short-term at least, at a lower level of expenditure because durable services can be used at no cost. Eventually, of course, durables will wear out and need to be replaced, in which case their cost again features as part of the budget standard, as is done in the conventional budget standards treatment of the cost of durables.

There is no single answer as to which of these two alternative treatments of durable goods in developing a budget standard is correct. Both have their uses for specific purposes. The conventional approach is comprehensive in its coverage and estimates the cost of establishing and maintaining a household at a particular standard of living.

The short-term approach may be more relevant to issues associated with the provision of income support over short periods of time when it can reasonably be assumed that durable goods do not need to be either acquired or replaced. Even here, however, it should be recognised that there will be some individual households who will need to replace durables, simply because they happened to have acquired theirs a long time ago.

The point of this discussion, which is taken up further in Appendix 1.A and again later in the Report, is that it illustrates the value of the budget standards approach which highlights such issues and provides a framework for thinking systematically about them. This again explains why budget standards should not be seen as the 'final word' on questions of adequacy and living standards, but rather as a step—a major step—in that direction.

1.3 Strengths and Limitations of Budget Standards

Some of the main strengths and weaknesses of budget standards have already been alluded to in the discussion. These are now subjected to a more comprehensive and thorough assessment.

Strengths

There are three specific features of budget standards that reflect the main strengths of the approach and a fourth over-riding advantage of the method. The first of the specific strengths, referred to earlier, is that budget standards begin from a consideration of *needs* and then proceeds to derive the relationship between need and the standard of living through the translation of needs into commodities (and services and activities), commodities (through information on costs and prices) into budgets.

The second strength of the method is its *transparency*, while the third is its *flexibility*. The budget standards method is transparent because until the needs have been identified and expressed in terms of consumption requirements, the standards themselves cannot be developed. Since each step in this process has to be gone through before the final budget can be derived, the assumptions and decisions taken at each step, along with the data used to

implement them, can be made explicit and subject to external scrutiny and debate. In principle, this provides a safety valve against budget standards becoming dominated by the views and judgements of experts—a feature of the method that many see as being one of its potential weaknesses.

The flexibility of budget standards arises from the fact that, at least if presented appropriately, budget standards can be varied to reflect changes in the needs on which they are based, or in the normative judgements that inform those identified needs, or in the consumption levels required to satisfy the needs, or in the prices at which the consumption items are costed.

Drawing on all three of these strengths of the method is the fact that because budget standards provides a coherent framework for translating needs into budgets at specific standards of living, it also facilitates an informed analysis and debate of the issues associated with community norms and living standards.

Given that adequacy is concerned with the ability to satisfy needs within current resources, the fact that the development of budget standards starts from the articulation of the needs of households is the greatest strength of the approach. Furthermore, the fact that these needs are developed from existing normative standards means that budget standards are relevant to society as it currently exists—a feature that is lacking in poverty and low income measures like the Henderson poverty line and the half-median income standard, neither of which have a close relation to current Australian needs.

In drawing up a budget standard, it is also possible to incorporate a wide range of different needs. In a modern society like Australia, there are more subtle needs than those for food, shelter and clothing that are identified in the conventional poverty literature. Needs extend beyond these dimensions to encompass such factors as the need for autonomy and good health, the need to be able to participate in social activities, to have access to reasonable transportation and to be able to engage in various forms of leisure activities.

The important role played by such factors as the degree of access to health or transport services in determining the standard of living of Australian households has been highlighted to great effect in the Australian Living Standards Study conducted by the Australian Institute of Family Studies (McDonald, 1993) and the Australian Standard of Living Study conducted by Travers and Richardson (1993).

The ability of research on budget standards to incorporate these wider dimensions of need into the analysis of living standards is important because it allows budget standards to be seen as more consistent with other modern approaches to poverty and deprivation. For too long, budget standards wore the badge of subsistence poverty in the eyes of many, a categorisation that has only recently been seen as inappropriate.

As Bradshaw and his colleagues have argued:

'It would be wrong to claim too much for budget standards methodology. There will be arguments about the components of a modern budget standard just as there were about Rowntree's standards. The quality of people's lives cannot be completely represented by the goods they consume. Budgets cannot represent fringe benefits, wealth and the consumption of unmarketed public and private services. Neither can a budget show how goods are consumed variously within households. However, *budget standards are capable*

of incorporating elements concerned with social participation and can represent a measure of relative deprivation.' (Bradshaw, Mitchell and Morgan, 1987, p. 180; italics added)

Budget standards thus provide a framework for identifying and costing the full range of needs associated with economic and social participation in a given society at a given point in time. Once this has been done, the way is open for debating the needs that have been identified, the normative standards that underlie them and the methods used to cost these into the budgets themselves.

This leads naturally on to the second strength of budget standards, their transparency. Because budget standards are developed 'from the bottom up' it is always possible to disentangle them in order to explore in detail how they were constructed in the first place. In this way, budget standards have the potential to illuminate what a poverty (or any other) standard means by spelling out what a particular sum of money will purchase in terms of a consumption standard of living.

Thus, budget standards allow the actual diets used to construct the food budget to be identified, along with the wardrobe of clothes, the household furnishings and fittings, the standard of housing, the kinds of holidays taken, and so on. Those who wish to understand what the standards mean can thus see this directly by studying how they were constructed and costed in the first place. Those who wish to challenge them have the information at hand to do so; those who wish to defend them are similarly catered for.

In order to achieve this transparency, budget standards are also rather complex and cumbersome. The household goods and services budget alone, for example, (described in detail in Chapter 7) contains over 400 items, ranging from the tiny (teaspoons and egg cups) to the substantial (dining tables and lounge suites). The danger in such complexity is that the enormous amount of detail will swamp all but the most dedicated analysts and in fact serve to obscure rather than illuminate the underlying methods and assumptions.

Such considerations have caused writers such as Piachaud (1987), Callan and Nolan (1991) and the recent US expert panel on poverty measurement (Citro and Michael, 1995) to argue that this aspect of budget standards is a two-edged sword. The sheer volume of detail may serve to give an unwarranted impression of 'scientific objectivity' to budget standards when they are in fact nothing more than a long list of rather arbitrary normative judgements.

The third specific strength of budget standards concerns their flexibility. This aspect of the approach should by now be obvious, in that once the methods themselves have been developed and the relevant norms and behavioural data collected, budget standards can be modified to suit many different circumstances. The two main dimensions of variation that have been explored in previous research on budget standards relate to variations in household size and type, and variations in the assumed standard of living.

In relation to household types, once the standards have been developed for a range of different households at a *given* standard, they can be used to estimate how the absolute household budgets vary with the size and composition of the household (the costs of children, of other family members and the extent and size of economies of scale) and what the relevant relativities across different households are like (the equivalence scale issue).

It is worth noting at this stage, however, that such estimates of how incremental costs vary with household size and composition are often constrained by the precise way in which these

change. The costs associated with an additional child in a household, for example, depend very much on the age of that child as well as on the age, number and gender of any existing children. One of the reasons for this is that these factors determine the number of bedrooms already assumed to be required by the household and whether or not an extra bedroom is needed. The example illustrates that budget standards provide estimates not only of the extent to which household costs vary with size and composition, but also *why* these differences exist and the role of different factors in contributing to them.

In addition to being able to manipulate the budgets for these kinds of purposes, it is also possible to develop new budgets that can address new issues. More importantly, this will generally not involve having to start from scratch, as there will generally be a good deal of the required information already contained within previous budgets. In order to estimate the costs of a 10-year-old child, for example, many of the budget items calculated for a six-year-old may be able to be used, with adjustments made only at the margin—at least in some areas.

Finally, the flexibility of budget standards provides users with the ability to replace those normative judgements or assumptions that they do not like with others that are more acceptable and explore what difference this makes to the final budgets. To do this requires that the budgets themselves are transparent as explained above, so that ensuring transparency is the key to guaranteeing flexibility.

This flexibility can apply to specific items included in the budgets (replacing a colour TV with a black and white set, or not allowing the household to have a vacation) or it can apply to entire areas of the budget (by asking, for example, what do the after-housing costs budgets look like, or how much is spent on consumer durables and what difference does it make to the budgets if expenditure on consumer durables is excluded?).

It is also possible to construct budgets that do not cover the full span of items. Those agencies responsible for the provision of emergency relief, for example, may be interested in restricted budgets that cover only the minimum requirements of nutrition, housing and clothing. These can be derived or modified according to specific requirements.

Finally, it is possible to explore the impact of policies which affect the price of items that are incorporated into the budgets. There are, for example, many concessions that reduce the cost of items for many groups in Australia. Budget standards allow these to be identified and their overall impact on household budgets to be estimated.

The resurgence of interest in budget standards can largely be explained by the strengths of the method as outlined above, particularly in a context where vastly improved computer software allows greater use to be made of features like transparency and flexibility. However, the method also provides the basis for a more informed debate on issues associated with adequacy and living standards, precisely because it involves identifying needs with great precision and is explicit about its methods and assumptions.

Although it is true that there will always be differences of opinion on normative questions, the fact that these are separately identified in constructing budget standards from the technical aspects of the exercise allows both to be better understood and subject to *independent* scrutiny from a range of different perspectives.

Limitations

Despite the considerable strengths of budget standards, the method is by no means free of criticism. The first such criticism, already alluded to, relates to the view that the development of budget standards creates a perception of scientific objectivity in the identification and costing of basic needs which is not supported by the method itself. As noted above, a number of commentators have expressed concern over this feature of budget standards.

Underlying these reservations is the view that the normative judgements of the 'experts' who construct the budgets may come to be seen as having more authority than is warranted. Some writers, such as Veil-Wilson (1987) and Walker (1987) see this obstacle as providing an opportunity for the budgets to be 'democratised' by supplementing (and eventually replacing) the judgements of the experts by those held in the community generally. This approach, however, raises its own issues about how any community consensus is to be decided and, indeed, whether or not there is one.

An earlier attempt to identify whether or not there was any agreement among welfare agencies and related groups about what constitutes a minimum decent standard of living in Australia undertaken by the Social Welfare Policy Secretariat (SWPS), considered in more detail later, produced evidence suggesting that there was no strong agreement on such issues.

Thus, SWPS reported that:

'Most people thought that food, housing, clothing and medical care should be included in the budget, but no one was prepared to specify the quantities. There appeared, for example, to be no generally accepted low cost "Australian style" diet. And there was much disagreement about whether such things as tobacco and alcohol, household goods and services, education, recreation, and motor vehicles should be included...In the general community, we believe, there would be greater disagreement about the components of a minimum decent budget.' (SWPS, 1981, p. 39)

The lack of consensus identified by SWPS is likely to partly reflect the method used to explore the issue. Asking people to specify what quantities of various goods are required to attain a given living standard is likely to leave even the experts struggling to come up with a clear and precise response. If instead, people are provided with a list of quantities and costs (i.e. with a set of budget standards) they are likely to be much more able to respond to questions and, if the experience of using this approach to develop a poverty line in New Zealand is any guide, may also give rise to a reasonable degree of agreement (Stephens and Waldegrave, 1995).

Having said this, however, it also has to be acknowledged that Australian research on community attitudes to questions associated with adequacy suggests that there may be no broad consensus—at least in relation to questions concerning basic needs and minimum income requirements (Saunders and Matheson, 1992).

Although these difficulties in identifying a consensus on the components that enter into the development of a budget standard may hinder the process of validating expert judgements against community opinion, they should not prevent it. Nor should the views of the experts be so readily discarded. The validity of expert opinion in many aspects of social decision-making

which combine scientific evidence with judgement or make judgements about the merit of competing pieces of evidence is accepted without challenge in many other fields of inquiry.

In an area such as the determination of minimum standards of adequacy, however, there is a particularly strong case for ensuring input from the community. Such input is intended to provide, in the words of Doyal and Gough (1991), 'experiential knowledge' which will complement the 'codified knowledge' provided by the experts. The combination of both inputs is seen as the outcome of a dialogue which is opened up by the process of participation which seeks community opinion on needs.

Doyal and Gough also warn that such participation does not come without its own dangers. They argue that:

'Effective and informed participation on the part of the population whose needs are being assessed is vital, and has yielded impressive results...By itself, however, an emphasis on participation is no panacea. Among other things, it can advantage the already-privileged through their ability to manipulate the information process and can sacrifice the common good to sectional interpretations of it.' (Doyal and Gough, 1991, p.168)

Clearly, there is a balance to be achieved between ensuring that participation is extensive and open but also that it is unbiased.

The inherent difficulties of identifying needs and the dangers of attempting to do so have been vividly expressed by Michael Ignatieff who in his book *The Needs of Strangers* summarises the issues in following words:

'It is difficult enough to define human need in terms of basic necessities. These are, after all, relative and historical, and there has always been fierce controversy over the level at which basic human entitlements should be set in any society... It is also notorious how self-deceiving we are about our needs. By definition, a person must know that he desires something. It is quite possible, on the other hand, to be in need of something and not know that one is. Just as we often desire what we do not need, so we often need what we do not consciously desire. If we often deceive ourselves about what we need, we are likely to be deceived about what strangers need. There are few presumptions in human relations more dangerous than the idea that one knows what another human being needs better than they do themselves.' (Ignatieff, 1994, p. 11)

These words not only help to explain why it is difficult to reach a consensus on what needs are, they also warn against the dangers of allowing needs to be identified and codified by experts without seeking an input from those to whom they are assumed to apply.

In the Australian context, some of these issues have emerged in the recent debates over the role of income benchmarks in the classification of living standards. For example, the need for income benchmarks to be the outcome of an open and participatory process was recognised in the recent Senate Report on *National Well-being: A System of National Citizenship Indicators and Benchmarks*, which observes that:

'Benchmarks imposed by any one authority or person will not necessarily reflect the aspirations of society. The scope and content of the legal, economic, social and cultural rights and responsibilities of citizens involve political judgements and must finally be determined through the political process.' (Australia, Parliament 1996, p. 39)

Clearly, it is important to ensure that budget standards reflect the values and behaviour of the society to which they apply if they are to play a role in improving the circumstances of those whose needs are not acknowledged and thus go unmet.

Another major criticism of the budget standards approach—again referred to earlier—is that it involves an element of circularity. This arises because of the attempt to validate the expert budgets against actual spending and behavioural patterns. Without some such attempt to benchmark or validate the derived standards, it is argued, the claim that they represent a standard of adequacy relevant to a particular society at a point in time cannot be sustained.

In relation to household expenditure patterns, for example, how can these be used to validate budget standards without building into what are intended to be normative and hence needs-based measures the constraints that determine actual spending decisions? Yet once the standards are varied to reflect actual behaviour, any claim that they are independent of actual living standards is lost.

Bradshaw has expressed this point of view in his evidence to the UK Social Services Committee in the following way:

'In order to derive the components for a budget standard it is usual to start with normative judgements about the amount of food needed, clothing required, heat that is desirable and so on. However, sooner or later those normative judgements have to be informed (and often constrained) by data on how people actually behave—what they buy and how much they spend. Is it therefore worth going through the enormous labour of deriving a normative budget if in the end it is structured by existing behaviour? Why not simply rely on behavioural (expenditure) data from the start?' (Bradshaw, 1989, p. 15)

Much the same point was made in the United States in 1980 in the Report of a committee headed by leading poverty researcher Harold Watts which reached the conclusion that the development of budget standards should be rejected in favour of reliance on the analysis of expenditure data (Watts, 1980).

That committee saw its role not as to develop its own consumption and living standard norms for American society, but rather to elicit and give quantitative expression to the norms which already exist, as captured in the expenditure patterns of different American families (Watts, 1980, p. 39).

The SWPS report referred to earlier concluded that the development of budget standards would contribute little to the Australian poverty debate because of their inability to resolve this dilemma. A similar position has led to the rejection of the full-blown budget standards approach in the US in favour of the narrower 'categorical budget method' in which budgets for a small range of basic needs are developed and multiplied up to give an estimate of the total budget (as in the US poverty line mentioned earlier).

The fact that so many of the critics of budget standards have raised the same concern suggests that there are issues that need to be resolved before the method can be claimed to provide a viable alternative approach to identifying and pricing basic needs as a way of establishing adequacy benchmarks. However, it has to be acknowledged that although budget standards require judgements to be made, this of itself, is not a criticism which is unique to the budget standards method.

It is now widely accepted that all poverty lines embody judgements about adequacy (Saunders, 1995). The crucial issue is thus not how to avoid making normative value judgements, but rather how best to formulate and articulate such judgements and how they can be tested (or validated) against prevailing social attitudes and values.

From this perspective, budget standards can be seen as superior to many other approaches because in developing the budgets the judgements are made explicit as noted earlier. However, this in itself is not a sufficient defence. Judgements not only need to be able to be identified, they also need to be defended as valid or, at the very least, be able to be revised in order to check what impact this has.

Undertaking some form of *sensitivity analysis* has the potential to achieve this while at the same time serving to highlight the fact that budgets are not objective measures, but are instead essentially normative constructs. This kind of analysis involves identifying areas where there is disagreement over the appropriate method or assumption to use, and then trying a range of different assumptions and/or methods and checking whether or not this affects the results, and in which direction. In many cases, it may be the case that replacing one assumption by another has no impact on the overall results, implying that the assumptions themselves are not critical—at least in this respect.

For budget standards generally, the issue is whether it is possible to locate the budgets in a social and cultural context by validating them against observed patterns of behaviour without at the same time undermining their claim to reflect independently formulated normative judgements about need that are independent of the constraints that are reflected in observed spending patterns.

Arriving at the right balance between the normative and the behavioural will never be achieved in a way that will satisfy everybody. In practical terms, this implies that rather than attempt to achieve the impossible, a better strategy involves making judgements about where the balance should be drawn and making these explicit so that others can debate them and, where necessary, revise them.

In the light of the normative content of any budget standard, combined with the disagreement that inevitably surrounds the value judgements required to develop any standard, the standards themselves must be treated with a good deal of caution. As emphasised already, budget standards should not be seen as definitive; they are better viewed as a vehicle for articulating judgements about living standards and as providing a framework for exploring the nexus between household budgets, household incomes and standards of living.

The valuable role that a budget standard can play in making explicit the kinds of judgements required to link a particular income to a particular standard of living for a household in particular circumstances has been brought home to the research team at many stages during the conduct of the research. The usefulness of discussing living standards within a budget standards framework was further highlighted during the course of the focus group discussions that are summarised in Chapter 13.

However, although these considerations suggest that the absolute value of any budget standard should not be accorded a status and significance that it cannot bear, the crucial point is that research on budget standards has the potential to promote a more informed and systematic debate over the meaning of adequacy and what is needed to attain it.

These comments have somewhat less force when budget standards are used, not as a benchmark for assessing the adequacy of *absolute* income levels, but as an indicator of the *relative* needs of different households and the income relativities required to achieve these. These relativities are less susceptible to the criticisms that are directed to the absolute level of budget standards, as long as there is a degree of confidence that the *same* standard applies to households that differ in size and composition.

However, this raises another issue that can be viewed as a weakness of the budget standards methodology. It relates to the confidence with which it can be claimed that the different budget areas that comprise the overall standard are developed at the *same standard* in each case. As is explained in detail in later chapters, considerable effort has gone into ensuring that the budgets correspond to the specified standards to which they apply.

This has been achieved through a variety of means, including using lower prices to cost the low cost budgets, assigning longer lifetimes to durable goods at the lower standard, including items of lower quality and sometimes not including an item at all if the evidence indicates that ownership of the item is not widespread in the community. These methods have all been developed in overseas research on budget standards, although there are many instances where they have been refined in developing the Australian budgets.

However, although it can be claimed that the Australian research is at least as good as that undertaken elsewhere, all budget standards studies suffer from the difficulty of knowing whether the standards to which the budgets apply are constant across each of the separate budget areas. How can one be sure that the standard that has shaped the development of the low cost food budget, for example, is the same as that used to develop the low cost clothing or leisure budgets?

Unless there is a reasonable degree of certainty that these standards are indeed the same (or very similar) across the different budget areas, the final budgets that are derived by adding up the separate budget components are questionable and their interpretation open to debate. Yet ensuring a consistency of standards *across* the different budget areas has not been given any in-depth consideration in previous budget standards studies.

One of the reasons for this no doubt rests on the inherent difficulty of the task. Those community standards that exist apply to specific areas of consumption or activity and do not address the issue of setting equivalent standards across different areas. The difficulties confronting any such exercise are formidable and although, as will be explained in the following chapter, an attempt has been made to ensure a degree of consistency in the research, the extent to which this has been successful is simply not known.

These problems, along with those described earlier, should not be lost sight of when studying the budget standards that have been produced and considering their implications. As noted earlier, the budget standards are *indicative* only and to claim more than this for them would be to fail to fully appreciate some of the limits of the methods used to derive them.

1.4 Outline of the Report

Having provided an overview of the concept of budget standards, including an assessment of their strengths and weaknesses in this opening chapter, the remainder of the report explains the details of the research design and methodology that have been employed to develop the indicative budget standards, summarises the data and other relevant information that have been used to construct them, presents the results and discusses some of the implications of the research.

Chapter 2 begins by describing how the overall organisation of the project was established so as to address some of the weaknesses inherent in the budget standards research. This is followed by a description of the two standards at which budgets have been developed and a discussion of how each of the two standards was articulated and put into practice. There then follows a discussion of the broad operational matters of research design which were used to produce the budgets.

The issue of the customisation of the developed standards is then taken up by explaining the role of this aspect of the research and the limitations that apply to it. This is followed by an explanation of how the standards can be used to produce estimates of the costs of children, economies of scale in household size and the need relativities between households of differing size and composition. Finally, the role of sensitivity testing in the research is then outlined (including a discussion of its rationale).

Chapters 3 through to 11 present the detailed descriptions of the methods used to develop the budget standards in each of the nine main identified budget areas: housing; energy; food; clothing and footwear; household goods and services; health; transport; leisure; and personal care. Each of these separate chapters explain how the component budgets were developed, outline the normative judgements and behavioural data that were used to develop them, and then describe how these were combined to form the final indicative budgets in each area. Details of the pricing sources used in each case are also provided, as is other information that informed the development of the component budgets (including, in some instances, feedback and advice provided by the Budget Standards Unit (BSU) Steering Committee and from the focus group discussions).

These nine chapters can each be read in isolation for those readers with an interest in a specific budget area only. However, in doing so, it is important to read them in conjunction with Chapter 2 which explains the broad methodology employed in the study and provides an overview of the methods and data sources used, along with a justification for the approaches adopted in the various dimensions of the research.

Chapter 12 brings the component budgets together to form the overall low cost and modest but adequate budget standards and presents comparisons between the level and composition of the low cost and modest but adequate standards with actual household budgets derived from the *1993-94 Household Expenditure Survey*. Further analysis in this chapter compares the budget standards with a range of other income benchmarks including the level of social security payments and the Henderson poverty line. Finally, Chapter 12 reports results from an attempt to assess the sensitivity of the budget standards to variations in some of the assumptions about living standards that underlie them.

Chapter 13 provides a detailed report on the role of the focus groups in the project as a whole and summarises how each of the groups were constituted and how their discussions were conducted. The main points to emerge from the focus group discussions are summarised, along

with the identification of areas where the focus group feedback caused the preliminary budgets to be modified.

Chapter 14 addresses the important question of using budget standards to derive estimates of how costs vary with the size and composition of the household. After discussing how the budgets can be used for this purpose and the qualifications that apply to such use, the low cost and modest but adequate budget standards are used to derive estimates of the extent of variation with the numbers, economies of scale in household size, the costs of sole parenthood and the cost of employment and job search. A method is developed which allows (qualified) cost relativity estimates to be derived for a broader range of households than just those for which standards have been derived. The chapter ends with a discussion of the implications of the results, taking account of the limitations that attach to them.

Chapter 15 explains the issue of the customisation of the budget standards—the extent to which the research makes it possible to consider how the budgets would vary as the specific circumstances of the households for which they were constructed is allowed to change. Included in this discussion is a description of the budget standards spreadsheets that have been developed to accompany this written report and the role that these can play in the general process of customisation. Two specific dimensions of the customisation issue explored in this chapter are the adjustment of the budget standards over time, and the scope for adjustment to reflect geographical variation in needs and costs. The chapter concludes with a brief discussion of the main lessons to emerge from the research as a whole that is of relevance in the customisation context.

APPENDIX 1. A: The Relationship Between Budget Standards and Other Expenditure Frameworks

I.A.I Introduction

In light of the fact that budget standards have not been systematically developed before in Australia, it is useful to spell out how budget standards relate to other statistical data that have implications for the well-being of households and the conceptual framework that underlies such data. The household statistics that are most closely related to budget standards are those collected by the Australian Bureau of Statistics (ABS) in its *Household Expenditure Surveys* (HES), the most recent of which was conducted in 1993-94 (ABS, 1995a).

The ABS is also in the process of developing a new conceptual framework for relating data in the fields of household income, consumption, saving and wealth to the measurement of the well-being of households, and has released a report outlining a provisional framework in this area (ABS, 1995b). Although still only provisional, the relationship between this framework and budget standards warrants some investigation.

Finally, the research on living standards undertaken by Australian Institute of Family Studies and by Travers and Richardson (1993) also has relevance to budget standards, as well as to the ABS statistical frameworks mentioned above.

In attempting to summarise how research on budget standards relates to this wider body of research on household well-being and living standards, it is important to recognise that a budget standard is no more or no less than that—a standard which describes what is required to achieve a normatively informed standard of living in relation to material consumption, and then estimates what it costs to acquire the goods and services attached to that standard.

1.A.2 The Household Expenditure Survey (HES) Framework

The main purpose for which ABS undertakes the HES is to provide updated information on household expenditure patterns that can be used to revise the weights used to construct the Consumer Price Index (CPI) (ABS, 1995a, p. 1). However, this is not the only activity for which HES data have been used.

Research studies have used the HES data to explore the impact of government programs on household incomes (ABS, 1995c), to estimate relative household needs as reflected in an equivalence scale (SWPS, 1981; Binh and Whiteford, 1990; Bradbury, 1996) and as the basis for estimating the degree of inequality in the income distribution (Johnson, Manning and Hellwig, 1995) and the extent of poverty (Saunders, 1997).

As noted by ABS in describing the conceptual framework underlying the latest HES, the key concept of expenditure is defined as 'the cost of goods and services acquired during the reference period for private use, whether or not those goods were paid for or consumed' (ABS, 1995a, p. 62).

Expenditure can be measured in one of three alternative ways, referred to by ABS as the *acquisitions approach*, the *payments approach*, or the *consumption approach* (ABS, 1995a, p. 3). Of these three, the HES adopts an acquisitions approach, under which information is collected on; 'the full cost payable by the household of acquiring a good or service within a given period...regardless of whether the household actually paid for or consumed the good or service within the period' (ABS, 1995a, p. 3).

In the case of perishable items like food, the acquisitions approach will produce identical results to the payments or consumption approaches, because these items are generally bought, paid for and consumed within the normal (weekly) HES reporting period. However, in the case of durable items and items purchased on credit that are not fully paid for or consumed within the reporting period, the average expenditures of *individual households* will vary according to the approach adopted, although the estimates will 'average out' for *groups of households*.

In relation to the disaggregation of household expenditure into its separate components, the HES adopts the Household Expenditure Survey Commodity Code List (HESCCL) which underlies the HES (ABS, 1995a, p. 48 and Appendix C). In light of the fact that the HES data will be used (as the equivalent of the HES data have been used in other countries) to inform the development of budget standards and as a 'reality check' on the standards produced, there is much to be said for ensuring that, as far as possible, the breakdown of budget standards into their component budgets follows the same definitions as those embodied in the HESCCL.

In general terms, this approach has been followed, although a few minor variations to the HESCCL have been introduced, primarily at the suggestion of the BSU Steering Committee, who felt that some reorganisation of the HES categories would allow some of the policy and other implications of budget standards to be more readily discernible. The concordance between the HESCCL and the budget standards component classification is spelt out in detail in Appendix 1.3.B).

In general, the development of budget standards within the HESCCL framework means that budget standards can be presented in a form that is consistent with other data on household consumption and expenditure patterns. This feature, as noted earlier, also facilitates the use of HES data to inform the results produced from the normative approach that underlies budget standards.

1.A.3 The Provisional ABS Framework for Household Income, Consumption, Saving and Wealth

As noted earlier, one of the uses to which HES data have been put has been to provide an indicator of the standard of living of households, how these vary between different household types and how they have changed over time. The ABS has recently been developing a framework that provides the basis for an improved understanding of the conceptual issues involved in this task.

To this end, a new *Provisional Framework for Household Income, Consumption, Saving and Wealth* (ICW) has been developed within ABS and a Discussion Paper released for public comment (ABS, 1995b). The aim of the ICW framework is to provide 'a consistent and integrated outline of the economic resources available to households and a description of the concepts, definitions and classifications needed when attempting to measure economic well-being' (ABS, 1995b, p. iii).

The proposed ICW framework has been devised for the measurement of three key aspects of household well-being:

- their power or command over economic resources;

- the extent to which they can choose between consumption and wealth accumulation; and
- changes over time in the economic well-being of households.

The ICW framework covers the flows of economic resources into and out of the household and the changes in the household's stocks of assets and liabilities that accompany them, using a model that is consistent with relevant international statistical standards for household income data and with the Australian National Accounts (ANA) and the internationally-endorsed System of National Accounts (SNA).¹

A key feature of the ICW framework is that it contains a broad measure of household income which includes, in addition to the standard cash income concepts of primary income, property income and transfer income, other non-market income in the form of the value of unpaid household work, and the value of household services such as those provided by the use of owner-occupied dwelling and household consumer durables.

Consumption is defined using the conventional economic concept as the process of 'using up' goods and services, with consumption itself separated into *consumption of goods* and *consumption of services*. The former is restricted to those non-durable consumer goods which are used up immediately in the process of satisfying needs and wants (referred to earlier as consumable items), while durable goods (defined for practical purposes within the ICW as those goods with a lifetime of more than one year) are treated as an addition to the asset position of the household from which a flow of services is produced. The consumption of the household includes only the flow of services derived from the ownership of durable goods, with the remaining (unused) component being included as part of the household's stock of wealth.

As ABS itself explains:

'In terms of services, the classification of consumer durables as capital goods allows for recognition of the durable goods as assets rather than consumption items. They provide services to the household that could otherwise have to be purchased in the market place. These services may contribute significantly to the economic well-being of the household and are included, along with purchased services, as consumption in the ICW framework. The services are net of depreciation of the durable goods.' (ABS, 1995b, pp. 14-15)

The service value of durable goods is not the only element of in-kind consumption from which the household can derive an economic benefit. Other components of non-market income include in-kind income provided by employers (e.g. in the form of free or subsidised use of a car), the value of unpaid household work, and in-kind gifts provided to the household by others.

Within the ICW framework, the services provided by consumer durables represent part of the (non-market) income of the household. For consistency, such income should be measured after deducting depreciation and the cost of maintenance and repairs (ABS, 1995b, p. 46). At the

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The ICW framework has many similarities with the 'market transactions' view of the household accounts developed and discussed by Ruggles and Ruggles (1992).

same time, since these services have been consumed, they must also enter as part of the consumption of the household.

The logic underlying this is that by including such services as part of both income and consumption, they have no impact on household saving (which is equal to the difference between income and consumption) which only changes when the *net* asset position of the household changes. Unfortunately, the ABS has not yet fully developed the classification of the services provided by consumer durables, this being 'left until further work has been carried out' (ABS, 1995b, p. 46).

In practice, the issue is of considerable importance because of the substantial contribution of the cost of consumer durables in most household budgets, even after their cost has been spread over an assumed lifetime. A washing machine costing \$520, for example, adds \$1 a week to the budget on the assumption of a 10-year lifetime, and while this amount may seem small, it quickly accumulates when all other household durables, furniture and fittings are also included.

As explained in Chapter 2, the conventional budget standards approach includes in the household budgets a notional value for the annual cost of durables which is derived by dividing their purchase price by the expected lifetime.² This approach is consistent with the approach developed as part of the ICW framework, where the spreading of the initial purchase cost over the lifetime of durable goods is used as the basis for estimating their current service value. It is also consistent with the interpretation of the HES durable expenditure estimates averaged across groups of households, as explained earlier.

Another area where the budget standards approach is broadly consistent with the ICW framework relates to the value of unpaid household work, which also enters on the consumption and income sides of the household accounts in the ICW framework. The approach developed by the BSU in deriving a leisure budget is motivated by the theoretical and empirical analysis of time use data that has been pioneered by ABS (1994). Here again, it is possible to criticise some of the practical details of the method, but the underlying conceptual framework of budget standards has been motivated by, and is broadly consistent with, the latest ABS methodological and statistical developments.

1.A.4 Consumer Durables, Needs and Living Standards

The treatment of consumer durables in budget standards raises a number of issues associated with the role and purpose of a budget standard and its relation to household needs. The conventional view in the budget standards literature is that the key point in the formulation of a budget standard is to maintain the standard of living of the household constant through time. This involves holding constant the household's consumption flow and its stock of wealth. Unless both of these components of the level of economic well-being of the household are held constant through time, it is difficult to sustain the position that the budget standard corresponds to a constant overall standard of living for the household.

On this interpretation, a budget standard is designed to meet the costs associated with the long-term needs of the household, including making provision for the replacement of consumer

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It is acknowledged that this is a simplified method for estimating the service value and cost of consumer durables. A thorough discussion of this issue, which introduces eight different ways of undertaking such estimation, is provided by Katz (1983).

durables as they wear out (as is in effect done by spreading their purchase cost over an assumed lifetime).

An alternative view is that a budget standard should only seek to cover the costs of meeting the short-term needs of the household which exclude the replacement cost of durables. On this approach, *if it can be assumed that the household already owns all the consumer durables that it needs*, the services derived from these items are available at no cost so that there is no reason to include any durable costs in the household budget standard.

The crucial difference between these two approaches revolves around the distinction between long-term and short-term needs and the related question of the treatment of consumer durables in the development of a budget standard.

A number of analysts have in fact argued that a useful distinction can be made between short-term and longer-term needs and the role of budget standards in the achievement of each of them. However, the distinction between these two concepts of need is not always unambiguous. Some needs (e.g. for food, clean water or health care) are on-going and need access to a constant stream of resources in order to be satisfied.

Even here, however, as Veit-Wilson (1994) has observed, the satisfaction of these immediate needs presupposes that society has engaged in longer-term collective activity to ensure that food and water are available, that doctors have been trained and hospitals built, and so on. There is thus an indirect aspect of longer-term social planning required before even the most pressing of individual short-term needs can be met.

However, Veit-Wilson himself has argued that it may not be unreasonable for governments to take account of the likely *duration* of benefit receipt in deciding at what level the benefits should be set. He cites the situations in Germany and Sweden, where national recommendations for the adequacy of benefits are based on a period of a year, yet where the local authorities who administer the payments often cut out the sums allocated to cover the periodic repair and maintenance of household goods, on the grounds that the claimants are not expected to be receiving benefits for long enough to need to make repairs or maintenance expenditures (Veit-Wilson, 1994, p. 12).

Even this practice is based on the normative judgement that those expected to receive social assistance for only short periods should not be allowed to save for their longer-term needs.

The counterpart to this view is that special provisions should be made available for those short-term beneficiaries who need to be compensated for any repairs or maintenance costs that they incur. Furthermore, higher benefits should also apply to long-term claimants such as the elderly or those with a disability who will be expected to have to incur repairs and maintenance costs while on benefit.

The important point, however, is to recognise the distinction between political decisions regarding how much priority is accorded to adequacy and the needs themselves. As Veit-Wilson puts it;

'...we must not deny the existence of people's long-term needs just because someone does not want to share the short-term costs of meeting them.' (Veit-Wilson, 1994, p. 13)

A similar position was adopted in the development of the UK budget standards, where the case for excluding expenditures on household durables was rejected on the grounds that the aim of a budget standard is 'to reflect not what is possible on income support, but what is necessary to maintain a low cost standard of living' (Yu, 1993, p. 214).

Despite these reservations, others have recognised the position described by Veit-Wilson as applying in parts of Germany and Sweden. The budget standards developed for Norway, for example, are explicitly designed to meet long-term needs, even though this involves them including an apparent element of short-term saving, as explained above.

Borgeraas (1996) explains that the Norwegian standard budget is designed to sustain a 'reasonable level of consumption', defined as one where family members have the opportunity to maintain physical and mental health, to be culturally integrated and to participate in basic social activities.

However, Borgeraas then goes on to explain that:

'The expenditure level is designed for families whose expenditure level already is reasonably low, and the budget illustrates how much it costs to maintain this level. The standard budget is—in other words—a long time budget. The practical implication of this assumption is that the budget also calculates the household's saving rate. This is necessary to buy durable consumption goods. The economic consequence is that families with a substantially lower consumption level need—for a limited period of time—an additional sum of money to be able to be permanently on a reasonable consumption level, that is the "extra cost of being poor".' (Borgeraas, 1996, p. 3-4)

Again, the Norwegian experience recognises that there are different meanings that attach to adequacy in the short-term and longer-term.

A very similar approach has been employed in the construction of the budget standards for Denmark. Again, the basic concept is of a long-term budget which provides for the expenses required for the maintenance of a reasonable level of long-term consumption for each household (Center for Alternativ Samfundsanalyse, 1993, p. 29; translated from the original in Danish).

However, those responsible for deriving the Danish budgets also provide details of a short-term budget which 'shows the expenses for ordinary incurring consumption with the exclusion of expenses for infrequently occurring expenses on durables... [which]...means that the saving included over the long-term budget standard for the maintenance of durables is excluded from the short-term budget' (translated from the same source).

Although it is important to recognise those variations which reflect short-term needs, the only sensible perspective for budget standards to adopt is one geared toward the satisfaction of long-term needs. Anything other than this would require the standards to vary with time, which would add greatly to their complexity (probably in ways that would defy resolution).

Despite this, a case can be made for the view that short-term needs are lower than long-term needs and that adequacy considerations suggest that short-term benefits should be set below those expected to be received over the longer-term. Excluding the household's 'capital goods' from budget standards could provide a way of determining what the differential between short-

term and long-term benefits should be, but it still has to be acknowledged that setting short-term benefits at a lower level would not allow households on benefit to sustain a low cost standard of living over the longer-term.

The most important point to emerge from this discussion is that it illustrates how valuable budget standards can be in providing a framework for thinking about needs and adequacy issues in ways which are both flexible but at the same time firmly rooted in the measurement and maintenance of living standards.

The debate over whether to include durable goods into household budgets, and on what basis, has a long history, both in Australia and elsewhere. There are good theoretical, conceptual and practical reasons for including the services derived from the ownership of durable goods in household budgets that are used as indicators of the level of well-being of households. Consistency requires that these services be included as both a component of household consumption and as an element of household income.

To omit consumer durables is to exclude many items that have a major impact on the level of well-being of the household and represent an important element in the household budget. This may be less of a problem when measuring the *short-run* well-being of households that are established in the sense that they have acquired all of the consumer durables they require, but problems will arise when considering households that are not fully established in this sense.

Furthermore, even established households will need to replace consumer durables at some time, and so the impact of durables on budgets and the level of well-being will assume an increasing significance with the passing of time. The crucial point is that, whatever method is used to estimate them, the costs associated with the purchase of consumer durables should be included in the household budgets if they are to be representative of the living standards of actual households.

A number of Australian budget studies have addressed the issues under discussion here, although from a somewhat different perspective. A systematic consideration of the issue in the context of estimating living costs and the relativities between them for different types of family has been provided by Ian Manning (1984a; 1984b). He notes that there are two separate issues raised in relation to the treatment of durable goods in consumer budget studies.

The first concerns the level at which the standard of living is held constant for the purpose of using budgets to compare costs as an input into the derivation of an equivalence scale. Where the focus is on a 'survival' standard rather than a 'belonging' standard, Manning argues that the case for including the costs of certain durable goods (e.g. a home, a family car or entertainment equipment) is less compelling than if a 'belonging' standard is being used (Manning, 1984b, p. 17).

The second issue discussed by Manning is the familiar one that because of the infrequency of durable good purchases, current expenditures do not reflect the value of services received. Manning argues that this problem can be overcome either by valuing the services of durables at their rental value or by assuming that households go through a typical accumulation cycle over the life course. Budget standards follows the first of these two possible approaches.

If instead, the life cycle accumulation model was followed, the costs associated with establishing a household referred to earlier would all be incorporated into the household budgets at that stage, with the result that living costs and hence cost relativities would be high when households were younger and much lower as they aged (Manning, 1984b, p. 18). One of

the limitations of adopting the life cycle accumulation approach is that it is only valid for the situation of the 'typical household'. An implication is that it would produce inequities for households who were not typical in the sense and found themselves, as a result, with a substandard stock of consumer durables in middle or old age (Manning, 1984b, p. 18).

The important research on living standards undertaken recently by Travers and Richardson (1993) extends the conventional cash income measure of well-being is extended to a 'full income' measure by including estimates of the value of non-employed (leisure) time, the imputed rent from owner-occupied dwellings, and the estimated service income flows associated with the ownership of durable goods.

Travers and Richardson estimate the service value of durables using the 'opportunity cost' method in which the purchase price of each good is converted into an income stream by calculating the interest income (net of depreciation) that could be earned on the purchase amount (Travers and Richardson, 1993, pp. 33-34).

As is so often the case, the final decision depends as much on practical considerations—what *can* be done—as on the conceptual niceties surrounding what one might *prefer* to do. The rental value or opportunity cost methods proposed by Manning and Travers and Richardson, respectively, each have their merits, although the use of either in developing budget standards would mean that the budgets would vary with the level of market interest rates, irrespective of what was happening to consumer prices generally.

This would add considerably to the complexity of the standards and create problems relating to how they should be adjusted over time. It would also mean that the service flows attributed to the ownership of durables would vary at a point in time for a *given* good according to the time at which the household originally purchased it.

In the light of such complexities, there is much to be said in favour of the approach to costing the value of durable service flows used currently by those who have derived budget standards around the world. The approach is not only straightforward to understand and simple to implement, it also has the advantage that it is entirely consistent with theoretical reasoning and the latest conceptual and statistical frameworks.

APPENDIX 1. B: A Brief History of Budget Standards

Australian Developments

The adequacy of social security payments and other income provisions has been a focus of analysis and debate in Australia for most of this century and budget standards have played an important part of that debate. In relation to the determination of wages, questions of adequacy standards have predominated ever since the Harvester Judgement in 1907 and have re-emerged as part of the ACTU's recent 'living wage' claim. (The role that budget standards research has played in the development of wages for the low paid in Australia has recently been reviewed by the former Senior Deputy President of the Australian Industrial Relations Commission, Professor Keith Hancock in his 1997 Cunningham Lecture to the Academy of Social Sciences in Australia: see Hancock, 1997).

In proposing that research on budget standards be undertaken, the DSS report was in effect arguing for the reinstatement of a body of research which, as has already been noted, has a long history in Australia. The original development of budget standards can be traced back almost 90 years to the Harvester Judgement in 1907, when Justice Higgins used household budgets (albeit based on data for very few families, as Macarthy, 1969, and Macintyre, 1985, have noted) to determine that an amount of 42 shillings per week was a 'fair and reasonable' wage 'appropriate to the normal needs of the average employee regarded as a human being living in a civilized society' (Commonwealth Arbitration Reports, 1907).

Budget standards were also utilised by the Royal Commission on the Basic Wage chaired by Justice Piddington to determine a basic wage tied to 'the cost of living according to reasonable standards of comfort for the typical family'(Commonwealth of Australia, 1920, p. 57). Like Justice Higgins, the 1920 Royal Commission based its estimates on the costs of providing minimum standards of food, clothing, frugal comfort and a small amount for emergencies, although as Hancock (1997) has noted, the Commonwealth Statistician at the time reported that had the Piddington standard been translated into the basic wage it would more than exhaust the entire national income.

Some 30 years later, Melbourne University economist Wilfred Prest (1952) published (seven years after completion!) results from a survey undertaken during the war in which an estimate of the cost of a minimum budget for food and clothing needs was derived. The food budget derived by Prest was based on the dietary requirements needed to satisfy the minimum nutritional standards formulated by the British Medical Association and the League of Nations (Prest, 1952, p. 66). These standards were then used to estimate the extent of poverty in Metropolitan Melbourne and in several of its suburbs in the war years 1941-43 (Prest, 1952, Table XXXV).

Despite the major contribution of this early research on budget standards, the method has not yet been used in modern Australian studies of adequacy and poverty undertaken over the last 30 years. One reason for this has been suggested by Stanton (1973) who, in reviewing the potential contribution of budget standards to social security reform, expressed the following reservations about the approach:

'The various arbitrary judgements that have to be made rob the budgetary approach of its claim to be based on scientific rigor with minimum attention to value judgements. For example, should expenditure on tobacco and alcohol be included in the minimum budget? What allowance for fashion should be made with clothing'

needs? What allowance must be made to ensure food is palatable, not simply providing sufficient calories, etc.? Should there be any allowance for entertainment, or replacement of durable household items?...the subsistence approach appears fraught with difficulties...as soon as the definition of "needs" progresses beyond such indicators as protein and calorie intake the subsistence concept of poverty is "corrupted" by notions of relativity.' (Stanton, 1973, p. 25)

These remarks capture the limitations of budget standards as they were perceived over 20 years ago and as many would still perceive them today.

Some years later, the role of budget standards as a basis for measuring poverty was explored by the Social Welfare Policy Secretariat (SWPS) as part of their examination of 'alternative approaches to measure a poverty line that would be relevant to Australia in the 1980s' at the request of Minister Guilfoyle (SWPS, 1981, p. 4). SWPS reviewed the use of budget standards in determining what they referred to 'subsistence budgets' as the basis for establishing a poverty line. They interpreted the record of budget standards research as not very encouraging, primarily because of the 'arbitrary judgements which have to be made in applying it'(SWPS, 1981, p. 28).

They went on to explore the extent to which it was possible to reach agreement on the components of a 'minimum decent budget' through a process of consultation with a number of welfare agencies, government departments and individuals with expertise in dealing with the problems of those with low incomes. They found that there was little agreement on which items should be included in such budgets, or on the standards of living associated with them. They argued that it was likely that the degree of disagreement on these issues in the wider community would be even greater.

Their overall conclusions were that there are severe theoretical and practical difficulties with the approach and that:

'Once one admits that the minimal requirements for physical efficiency have little to do with contemporary conditions the amount of freedom one has in constructing budgets is the undoing of this approach. This is particularly true if one does not wish or is not able to base a budget on the actual spending of low income families. We could construct budgets to show almost anything. A very severe budget can be used to show that no primary poverty exists in Australia; a generous budget could be used to show that poverty is rampant. With a modest amount of ingenuity and persistence one could use a budget to justify the existing—or some other—level of pension.' (SWPS, 1981, p. 35-36)

Despite this negative assessment, SWPS was not prepared to reject the budget standards approach entirely, arguing instead that there was a need for 'debate about the nature and minimum amounts of goods and services which may comprise an austere but tolerable standard of living'(SWPS, 1981, p. 39).

Whilst taking note of SWPS's criticisms of budget standards, Manning (1984a; 1984b) noted that at least in relation to the estimation of equivalence scales, the alternative methods have generally fared no better. He argued that the way forward was to combine data on actual household expenditures with 'the construction of sample budgets which make obvious the

value judgements inherent in the process of defining the nature of a constant standard of living for different households' (Manning, 1984b, p. 18).

At about the same time, the Institute of Family Studies (IFS) published its initial estimates of the cost of children in Australia using a restricted version of the budget standards methodology which covered the cost of a 'shopping basket' which included items in only two areas—food and clothing (Lovering, 1984). The IFS methodology adopted the methods developed in a UK study of the costs of children undertaken by Piachaud (1979), modifying it to suit Australian conditions and circumstances.

Budgets were estimated at two different levels, the first corresponding to a *minimum standard*, the second closer to that achievable on a *medium income*. The budgets themselves were restricted to food and clothing because of the conceptual and practical difficulties involved in deriving precise estimates in the other areas of household budgets.

As Lovering noted at the time:

'It was considered premature for the Institute to attempt a full scale study of the actual costs of children in Australia. It is clear that to do so necessitates arbitrary decisions on minimum requirements and the identification of acceptable adequate standards.' (Lovering, 1984, p. 17)

Implicit in this assessment, in contrast to the pessimistic conclusions reached by Stanton and SWPS, is the more optimistic view that it is possible to apply the budget standards approach to a wider basket of goods and services, although the Institute also emphasised that 'standards must not infringe the rights of individuals to determine their own values' (Lovering, 1984, p. 46).

Although Whiteford (1985), in his extensive review of alternative approaches to the estimation of relative needs as expressed in the form of an equivalence scale, did not devote much attention to the role of budget standards in equivalence scale research, neither did he ignore the topic entirely. In his concluding remarks concerning the prospects for an Australian equivalence scale, he argued that:

'Budget studies have an important role to play. Despite their essential arbitrariness, budgets...can be used at least to validate the results derived by other means, that is, take a derived set of relativities or a poverty line and see what can be bought by different families for the money.' (Whiteford, 1985, p. 131)

He also began his review by illustrating how the budget standards derived by Rowntree (1941) for families living in York, England in 1936 could be used to derive an equivalence scale showing how needs vary with family size and labour force status (Whiteford, 1985, Table 2.1).

This brief overview of the recent history of budget standards research in Australia illustrates the concern that many analysts have had over the many arbitrary decisions that have to be made in developing a budget standard. Although there is substance in such concern, the real issue is not so much whether or not a particular approach to adequacy involves making normative judgments (since this is true of *all* methods), but rather whether or not one approach can be regarded as superior to another on *other* grounds.

The fact that the SWPS Report, for example, was so negative in its assessment of the potential of budget standards should not conceal the fact the authors were unable to come up with *any* method for satisfactorily setting a new Australian poverty line.

Use of Budget Standards Overseas

Budget standards have a longer and fuller history overseas than in Australia and the method is currently being applied in an increasing number of countries. In England, the origins of the budget standards method can be traced back to the pioneering research on poverty in York, England undertaken by Seebohm almost 100 years ago (Rowntree, 1901).

Research on budget standards in the *United Kingdom* has recently been reinvigorated by the establishment of the Family Budget Unit at the University of York which has undertaken the task of developing budget standards for the UK in the 1990s (Bradshaw, 1993b; 1993c; 1993d).

Research on budget standards has also been undertaken recently in several other European countries, including Denmark, Germany, Netherlands, Norway and Sweden. In the Netherlands, Hagenaars and de Vos (1988) report that budget standards drawn up by experts at the Social Services Administration in Leeuwarden have been used as the basis for establishing an income poverty line for the Netherlands.

In *Germany*, budget standards have been used to set the level of the minimum social assistance income (Deleek, Van den Bosch and Lathouwer, 1992). Budget standards have been established and are regularly updated in Denmark, Norway and Sweden, where they are used for a variety of purposes including to assess the adequacy of social assistance payments and to assist in the provision of financial counselling advice to low income families.

The methods and assumptions used to develop the budget standards for *Norway* by Statens Institutt for Forbruksforskning (SIFO) (the National Institute for Consumer Research) are being made commercially available in computer software form and are expected to be widely used to inform a range of financial decisions by both individuals and institutions such as Banks and Building Societies (SIFO, 1987).

In *Denmark*, the family budgets developed and prepared by the National Consumer Agency of Denmark at the request of the Danish Government Home Economics Council give priority to making economic counselling of private households more efficient (Center for Alterativ Samfundsanalyse, 1993).

There are also elements of the budget standards approach in the methods used to derive the official poverty line in the *United States*. The method was originally developed by Orshansky (1965) and is similar to that used by Piachaud and IFS, in that the budgets are restricted to cover only a limited range of goods. The Orshansky poverty line is derived by costing a food budget and then applying a multiplier based on the actual proportion of food in the total budget to derive the level of total spending that is then defined as the 'official' poverty threshold.

As Ruggles (1990) describes the method:

'Orshansky started with a set of minimally adequate food budgets for families of various sizes and types that had been calculated by the Department of Agriculture. She simply multiplied these by a factor of three, on the assumption (borne out by some survey evidence) that

food typically represented about one-third of total expenditure.'
(Ruggles, 1990, p. 4)

The methods used by Orshansky to develop the US poverty line have recently been reviewed by the Panel on Poverty and Family Assistance established by the Committee on National Statistics at the National Research Council (Citro and Michael, 1995).

After an extensive analysis of the conceptual and practical issues, the Panel recommended that the current US poverty line should be revised to include in the list of basic goods to which the poverty threshold is tied, not only food, but also clothing, shelter (including utilities) and 'a small amount to allow for other needs' including household supplies, personal care and non-work-related transportation (Citro and Michael, 1995, p. 4). The cost of this basic budget should then be multiplied up to represent a total budget using data on actual expenditure patterns, the implication being that the role of the budget standards methodology should, in certain respects at least, be strengthened.

However, the Panel was also cautious in its overall assessment of the role and value of budget standards (or 'expert budgets' as they called them). They noted that while budget standards are explicitly normative, this in itself is not their main limitation. Instead, the Panel's concerns over budget standards were expressed in the following terms:

'It is not a criticism of the poverty thresholds that result from expert-based approaches to say that they embody judgments that almost always reflect the conditions of the society for which those judgments are made. This statement is true for other poverty thresholds as well ... The problem with expert approaches is that people may not recognize the elements of judgment involved and may prefer the experts' budgets because they appear more objective.' (Citro and Michael, 1995, p. 108)

Despite these reservations over the difficulties of their interpretation, budget standards have also been re-emerging in the recent US poverty literature. In her recent book, *Drawing the Line. Alternative Poverty Measures and Their Implications for Public Policy*, Patricia Ruggles argues for the use of budget standards in revising the methods used to construct the US poverty line in the following terms:

'...the appropriate way to update a set of absolute poverty thresholds for changes in needs and consumption standards over time is to call on some set of 'experts' to set normative standards of consumption for a market basket of specific goods, and then to have additional experts revise those standards for changes in consumption at a set interval such as a decade.' (Ruggles, 1990, p. 48)

Budget standards have been developed in several States in America (Bradshaw, 1993a) and a series of 'Basic Needs Budgets' has also featured prominently in recent US research on family budgets reported in Renwick (1993), Renwick and Bergmann (1993) and Bergmann (1996).

The development of the 'semi-aggregated category' approach to budget standards as represented by the concept of a 'Basic Needs Budget' has recently been praised by Harold Watts, a long-time critic of budget standards. In a paper prepared for the expert panel referred to above, he argues that 'the budget based standards or norms have very real advantages for

the measurement of poverty. There are hazards and drawbacks, of course, but this approach deserves careful consideration' (Watts, 1993, p. 20).

In *Canada*, the budget standards approach does not enter into the calculation by Statistics Canada of their 'low income cut-offs' (LICOs) which are widely perceived as being an official poverty line for Canada (Wolfson and Evans, 1989), although there are similarities with aspects of the Orshansky method. The Canadian approach incorporates actual expenditures on food, clothing and shelter into a basic budget and then defines the LICOs by identifying the point at which different households spend a pre-determined proportion of their total budget on the basic items.³

The Canadian LICOs are based on Engel's law, which states that the proportion of the budget spent on basic items declines as income rises and that this proportion is a good indicator of the overall standard of living. Accordingly, it is a reasonable approximation to assume that households who spend the same proportion of their total budget on the basic items have the same standard of living (Wolfson and Evans, 1989, p. 16).

Although the Canadian LICOs are not derived from budget standards, the budget standards methodology has been applied by some of the Provincial Governments in Canada for use in counselling families and individuals on money management issues. The Social Planning Council of Metropolitan Toronto (SPCMT), for example, derived a set of family budgets in 1991 and has been regularly updating them by movements in prices and costs since then (SPCMT, 1994).

According to a recent update, the SPCMT family budgets are increasingly being used within and outside Toronto by a variety of organisations including family courts, businesses concerned with questions of pay and pensions, those involved in wage negotiations and to orient prospective residents to the costs of living in Toronto. They are also used as a teaching instrument in schools and training programs (SPCMT, 1994, p. 2).

In *New Zealand*, a recent study undertaken by Brashares (1993) has applied the Orshansky method to derive an income adequacy standard based on the cost of a minimum food budget. The 'reasonableness' of that cost was assessed by comparing it with the cost of feeding the New Zealand prison population (Brashares, 1993, p. 190).

There are also some aspects of the budget standards methodology in other recent attempts to derive a poverty standard for New Zealand (Stephens, 1995; Stephens, Waldegrave and Frater, 1995) in which preliminary household minimum budgets were discussed by groups of households and then modified in light of the comments received.

A set of budget standards has also recently been derived for *Hong Kong* as a basis for assessing the adequacy of public assistance rates paid under the Comprehensive System of Social Assistance (CSSA) (MacPherson, 1994). The estimated standards received very wide publicity and were used to pressure the Hong Kong Government to raise CSSA payment rates, though with only limited success.

Finally, a budget standard poverty line has recently been estimated for *Malaysia* by Perumal (1992) based on the cost of a minimum diet plus allowance for expenses in four other areas—clothing and footwear, rent and power, household furnishings and equipment and personal

³ The proportion chosen was set arbitrarily to be 20 percentage points higher than the proportion of the average Canadian budget spent on the identified basic necessities in the population as a whole.

care. The approach incorporates a broader range of items than that used by the Malaysian Government to derive the 'official poverty line', although that method also adopts a budget standards methodology (Perumal, 1992, pp. 341-343).

The development of an international poverty line based on the cost of a nutritionally adequate food budget also underlies the analysis of trends in poverty undertaken by the World Bank (1990) and the United Nations Development Programme (UNDP, 1997). Such a poverty threshold has been used by the World Bank when advising developing countries and former Eastern European block nations about where to set minimum income safety nets to protect those adversely affected by economic restructuring.

The 'dollar a day' poverty line developed by the World Bank in its 1990 *World Development Report* is a consumption-based measure described as follows:

'A consumption-based poverty line can be thought of as comprising two elements: the expenditure necessary to buy a minimum standard of nutrition and other basic necessities and a further amount that varies from country to country, reflecting the cost in the everyday life of society.' (World Bank, 1990, p. 26)

Here again a modification to a budget standards approach is used, as it is in other poverty research conducted by World Bank economists (e.g. Chen, Datt and Ravallion, 1994).

The fact that a version of the budget standards methodology is being used by the World Bank illustrates again the extent to which the budget standards method has been revitalised in recent poverty research around the world.

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List

HES Two Digit Codes

1	Current housing costs
2	Fuel and power
3	Food and non alcoholic beverages
4	Alcohol
5	Tobacco
6	Clothing and footwear
7	Furnishings and equipment
8	Services and operation
9	Medical care and health
10	Transport
11	Recreation and entertainment
12	Personal care
13	Miscellaneous goods and services
14	Income tax (imputed)
15	Mortgage repayment—principal
16	Other capital housing
17	Superannuation and life insurance

Budget Standards One Digit Codes

0	Housing
1	Energy
2	Food
3	Clothing
4	Household goods and services
5	Health
6	Transport
7	Leisure
8	Personal care

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Rent payments (selected dwelling)	101	1	yes	0	yes	1	
Mortgage payments—interest component (selected dwelling)	102	1	yes	0	yes	1	
Water and sewerage rates (selected dwelling)	103	1	yes	0	yes	1	
General rates (selected dwelling)	104	1	yes	0	yes	1	
House and contents insurance (selected dwelling)	105	1	yes	0	yes	1	
Repairs and maintenance payments to contractors (materials and labour)	106	1	yes	0	yes	1	
Repairs and maintenance—materials only (selected dwelling)	107	1	yes	0	yes	1	
Interest payments on loans for alterations and additions (selected dwelling)	108	1	yes	0	no	1	
Body corporate payments (selected dwelling)	109	1	yes	0	yes	1	
Electricity (selected dwelling)	121	2	yes	1	yes	1	
Electricity (other dwelling)	122	2	yes	1	no	f	
Mains gas	123	2	yes	1	yes	1	
Bottled gas	125	2	yes	4	yes	1	
Heating oil	126	2	yes	1	no	1	
Kerosene and paraffin	127	2	yes	1	no	1	
Wood for fuel	128	2	yes	1	no	1	
Fuels, n.e.c.	129	2	yes	1	no	1	
Bread—home delivered	151	3	yes	2	no	1	
Bread—not home delivered	152	3	yes	2	yes	1	
Flour	153	3	yes	2	yes	1	
Cakes, tarts and puddings	154	3	yes	2	yes	1	
Biscuits	155	3	yes	2	yes	1	
Cake, biscuit, pudding and bread mixes	156	3	yes	2	no	1	
Breakfast cereals	157	3	yes	2	yes	1	
Pasta (spaghetti, noodles, etc.)	158	3	yes	2	yes	1	
Rice	159	3	yes	2	yes	1	
Cereals, n.e.c.	160	3	yes	2	no	1	
Ham	161	3	yes	2	yes	1	
Bacon	162	3	yes	2	yes	I	
Canned meat (other than bacon and ham)	163	3	yes	2	yes	1	
Sausages (not continental)	164	3	yes	2	yes	1	
Processed meat (frozen)	165	3	yes	2	yes	1	
Processed meat (not frozen or canned)	166	3	yes	2	yes	1	
Beef and veal	167	3	yes	2	yes	1	
Mutton and lamb	168	3	yes	2	yes	1	
Pork (excl. bacon and ham)	169	3	yes	2	yes	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Poultry	170	3	yes	2	yes	1	
Game	171	3	yes	2	no	1	
Offal	172	3	yes	2	no	1	
Meat, (not processed) n.e.c.	173	3	yes	2	yes	I	
Meat, undefined	174	3	yes	2	yes	1	
Fresh fish and other fresh seafood	175	3	yes	2	yes	1	
Frozen fish and other frozen seafood	176	3	yes	2	yes	1	
Canned and bottled fish and other canned and bottled seafood	177	3	yes	2	yes	1	
Processed fish and processed seafood, n.e.c.	178	3	yes	2	yes	1	
Fresh eggs	180	3	yes	2	yes	1	
Fresh milk and cream—home delivered	181	3	yes	2	yes	1	
Fresh milk and cream—not home delivered	182	3	yes	2	yes	I	
Cheese	183	3	yes	2	yes	1	
Butter	184	3	yes	2	yes	1	
Powdered milk	185	3	yes	2	no	1	
Dairy products and eggs, n.e.c.	186	3	yes	2	yes	1	
Margarine	187	3	yes	2	yes		
Edible oils and fats, n.e.c.	188	3	yes	2	yes		
Fresh citrus fruit	189	3	yes	2	yes		
Fresh stone fruit	190	3	yes	2	yes		
Fresh apples and pears	191	3	yes	2	yes		
Fresh fruit, n.e.c.	192	3	yes	2	yes		
Fresh fruit, undefined	193	3	yes	2	yes		
Canned, frozen and bottled fruit	194	3	yes	2	yes		
Dried fruit	195	3	yes	2	yes		
Nuts	197	3	yes	2	yes		
Fresh potatoes	198	3	yes	2	yes		
Fresh onions	199	3	yes	2	yes	1	
Fresh root vegetables, n.e.c.	200	3	yes	2	yes	1	
Fresh tomatoes	201	3	yes	2	yes	1	
Fresh vegetables, n.e.c.	202	3	yes	2	yes	1	
Fresh vegetables, undefined	203	3	yes	2	yes	1	
Frozen vegetables	204	3	yes	2	yes	1	
Other processed vegetables	205	3	yes	2	yes	I	
Vegetables, undefined	206	3	yes	2	yes	1	
Sugar	207	3	yes	2	yes	1	
Marmalades, jams and conserves	208	3	yes	2	yes	1	
Honey	209	3	yes	2	yes	1	
Syrups	210	3	yes	2	no	1	
Jellies and desserts, n.e.c.	211	3	yes	2	no	1	
Potato crisps and other savoury confectionery	212	3	yes	2	yes	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Chocolate confectionery	213	3	yes	2	yes	1	
Ice confectionery	214	3	yes	2	yes	1	
Other confectionery	215	3	yes	2	yes	1	
Tea (packaged)	216	3	yes	2	yes	1	
Coffee (packaged)	217	3	yes	2	yes	1	
Canned and packeted soup	218	3	yes	2	yes	1	
Proprietary food drinks, nec	219	3	yes	2	yes	1	
Spices and herbs	220	3	yes	2	yes	1	
Sauces and salad dressings	221	3	yes	2	yes	1	
Spreads and mixes, n.e.c.	222	3	yes	2	yes	1	
Food additives, n.e.c.	223	3	yes	2	no	1	
Baked beans and canned spaghetti	224	3	yes	2	yes	1	
Canned and bottled baby foods	225	3	yes	2	no	1	
Frozen prepared meals	226	3	yes	2	yes		
Prepared meals, n.e.c.	227	3	yes	2	yes		
Food, n.e.c.	229	3	yes	2	yes		
Food, undefined	230	3	yes	2	yes		
Soft drinks and aerated waters	231	3	yes	2	yes		
Fruitjuice	232	3	yes	2	yes		
Vegetable juice	233	3	yes	2	yes		
Juices,undefined	234	3	yes	2	yes		
Cordials	235	3	yes	2	yes		
Milk-based beverages, (not packaged/boxed), n.e.c.	236	3	yes	2	yes	1	
Non-alcoholic beverages, undefined	237	3	yes	2	yes	1	
Meals in restaurants, hotels, clubs, etc.	238	3	yes	2	yes	1	
Snacks, take-away food (not frozen)	239	3	yes	2	yes	1	
School lunch money	240	3	yes	2	yes	1	
Beer for consumption off licensed premises	261	4	yes	2	yes	1	
Beer for consumption on licensed premises	262	4	yes	2	yes	1	
Beer, undefined	263	4	yes	2	no	1	
Wine for consumption off licensed premises	264	4	yes	2	yes	1	
Wine for consumption on licensed premises	265	4	yes	2	no	1	
Wine,undefined	266	4	yes	2	no	1	
Spirits for consumption off licensed premises	267	4	yes	2	no	1	
Spirits for consumption on licensed premises	268	4	yes	2	no	1	
Spirits,undefined	269	4	yes	2	no	1	
Alcoholic beverages, n.e.c. for consumption off licensed premises	270	4	yes	2	no	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes							
Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Alcoholic beverages, n.e.c. for consumption on licensed premises	271	4	yes	2	no	1	
Alcoholic beverages.	272	4	yes	2	no	1	
Cigarettes	281	5	no				
Other tobacco	282	5	no				
Other tobacco products	283	5	no				
Suits, men's	301	6	yes	3	yes		
Coats, men's	302	6	yes	3	yes		
Trousers, men's (excl. jeans)	303	6	yes	3	yes		
Jeans, men's	304	6	yes	3	yes		
Cardigans, jumpers, sweaters and pullovers, men's	305	6	yes	3	yes		
Shirts, men's	306	6	yes	3	yes		
Singlets, underpants and briefs, men's	307	6	yes	3	yes		
Sleepwear, men's	308	6	yes	3	yes		
Men's clothing, n.e.c.	309	6	yes	3	yes		
Men's clothing, undefined	310	6	yes	3	yes		
Dresses, suits, skirts, trousers. women's (excl. jeans)	311	6	yes	3	yes		
Jeans, women's	312	6	yes	3	yes		
Coats, women's	313	6	yes	3	yes		
Cardigans, jumpers, pullovers. sweaters, twinsets, etc.. women's	314	6	yes	3	yes		
Foundation garments, women's	315	6	yes	3	yes	1	
Singlets, spencers, slips, petticoats, briefs and underpants, women's	316	6	yes	3	yes	1	
Sleepwear, women's	317	6	yes	3	yes	1	
Women's clothing, n.e.c	318	6	yes	3	yes	1	
Women's clothing, undefined	319	6	yes	3	yes	1	
Boys' singlets, underpants. briefs and sleepwear	320	6	yes	3	yes	1	
Boys' clothing, n.e.c.	321	6	yes	3	yes	1	
Girls' singlets, spencers, slips. petticoats, briefs. underpants and sleepwear	322	6	yes	3	yes	1	
Girls' clothing, n.e.c.	323	6	yes	3	yes	1	
Babies' clothing	324	6	yes	3	no	1	
Children's and babies' clothing, undefined	325	6	yes	3	yes	1	
Men's hosiery	326	6	yes	3	yes		
Women's hosiery	327	6	yes	3	yes		
Children's and infants' hosiery	328	6	yes	3	yes		
Hats and other headwear	329	6	yes	3	yes		
Clothing accessories (e.g. ties. gloves, handkerchiefs)	330	6	yes	3	yes		
Clothing materials	331	6	yes	3	no	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Commodity Group	Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes						Comments
	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	
Haberdashery	332	6	yes	3	yes	1	
Clothing, undefined and n.e.c.	333	6	yes	3	yes	1	
Men's footwear	334	6	yes	3	yes	1	
Women's footwear	335	6	yes	3	yes	1	
Children's and infants' footwear	336	6	yes	3	yes	1	
Footwear, undefined	337	6	yes	3	yes	1	
Dry cleaning and laundering of clothes	338	6	yes	3	yes	1	
Clothing repairs	339	6	yes	3	no	.1	
Footwear repairs	340	6	yes	3	yes	1	
Hire of clothing and footwear	341	6	yes	3	no	1	
Kitchen furniture	351	7	yes	4	yes	1	
Bedroomfurniture	352	7	yes	4	yes	1	
Lounge/diningroomfurniture	353	7	yes	4	yes	1	
Outdoor/gardenfurniture	354	7	yes	4	yes	1	
Otherfurniture	355	7	yes	4	yes	1	
Carpets	356	7	yes	4	yes	1	
Floor rugs, mats and matting	357	7	yes	4	yes	1	
Vinyl and other sheet floor coverings	358	7	yes	4	yes	I	
Floor tiles	359	7	yes	4	no	1	
Bed linen	360	7	yes	4	yes	1	
Blankets and travelling rugs	361	7	yes	4	yes	1	
Bedspreads and continental quilts	362	7	yes	4	yes	1	
Pillows and cushions	363	7	yes	4	yes	1	
Towels and face washers	364	7	yes	4	yes	1	
Table and kitchen linen	365	7	yes	4	yes	1	
Curtains	366	7	yes	4	yes	1	
Blinds	367	7	yes	4	yes	1	
Other household textiles	368	7	yes	4	yes	1	
Paintings, carvings and sculptures	369	7	yes	4	no	1	
Other furnishings and ornaments	370	7	yes	4	yes	1	
Cooking stoves, ovens, hot plates and ranges	371	7	yes	4	yes	1	
Refrigerators and freezers	372	7	yes	4	yes	1	
Washing machines	373	7	yes	4	yes	1	
Air-conditioners	374	7	yes	4	yes	1	
Dishwashers	375	7	yes	4	no	1	
Clothes dryers	376	7	yes	4	yes	1	
Other electrical household appliances	311	7	yes	4	yes	1	
Other non-electrical household appliances	378	7	yes	4	yes	1	
Tableware (e.g. crockery)	380	7	yes	4	yes	1	
Glassware	381	7	yes	4	yes	1	
Cutlery	382	7	yes	4	yes	1	
Cooking utensils	383	7	yes	4	yes	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Cleaning utensils	384	7	yes	4	yes	1	
Kitchen utensils, n.e.c.	385	7	yes	4	yes	1	
Lawnmowers (incl. electric)	386	7	yes	4	yes	1	
Gardening tools	387	7	yes	4	yes	1	
Other tools	388	7	yes	4	yes	1	
Household durables, n.e.c. and undefined	389	7	yes	4	yes	1	
Nails, screws and other fasteners	401	8	yes	4	yes	1	
Household soaps and detergents	402	8	yes	4	yes	1	
Household polishes	403	8	yes	4	yes	1	
Other household cleaning agents	404	8	yes	4	yes	1	
Paper products (tissue paper, serviettes, toilet paper)	405	8	yes	4	yes	1	
Trees, shrubs and plants	406	8	yes	7	yes	1	Pot plants, outdoor plants
Gardening products, n.e.c.	407	8	yes	7	yes	1	
Swimming pool chemicals	408	8	yes	4	no	1	
Household non-durables, n.e.c.(incl. foodwraps)	409	8	yes	4	yes	1	
Household non-durables, undefined	410	8	yes	4	yes	1	
Postal charges	411	8	yes	4	yes	1	
Telephone and telegram charges	412	8	yes	4	yes	1	
Pest control services	413	8	yes	4	no	1	
Gardening and private rubbish removal services	414	8	yes	4	no	1	
Housekeeping and cleaning services (including ironing)	415	8	yes	4	no	1	
Household services, n.e.c.	416	8	yes	4	no	1	
Child care services— institution	417	8	yes	4	yes	1	
Child care services, n.e.c.	418	8	yes	4	no	1	
Child care services, undefined	419	8	yes	4	no	1	
Carpet cleaning	421	8	yes	4	yes	1	
Repair and maintenance of soft furnishings	423	8	yes	4	yes	1	
Repair and maintenance of household appliances	424	8	yes	4	yes	1	
Repair and maintenance of tools	425	8	yes	4	no	1	
Repair and maintenance of household durables, n.e.c. and undefined	426	8	yes	4	no	1	
Hire of tools	428	8	yes	4	no	1	
Hire of household durables, n.e.c.	430	8	yes	4	no	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Household appliance repairs insurance	431	8	yes	4	no	1	
Hospital, medical and dental insurance	451	9	yes	5	yes	1	
Ambulance insurance (separate insurance)	452	9	yes	5	yes	1	
Sickness and personal accident insurance	453	9	yes	5	no	1	
General practitioner doctor's fees	454	9	yes	5	yes	1	
Specialist doctor's fees	455	9	yes	5	yes	1	
Dental charges	456	9	yes	5	yes	1	
Optician's fees (including spectacles)	457	9	yes	5	yes	1	
Practitioner's fees, n.e.c.	458	9	yes	5	no	1	
Prescriptions	459	9	yes	5	yes	1	
Proprietary pain relievers (powders, liquids and tablets)	460	9	yes	5	yes	1	
Proprietary ointments, lotions	461	9	yes	5	yes	1	
Proprietary medicines, n.e.c.	462	9	yes	5	yes	1	
Creams, tablets and medicine, undefined	463	9	yes	5	yes	1	
Surgical dressings	464	9	yes	5	yes	1	
Therapeutic appliances and equipment	465	9	yes	5	yes	1	
Pharmaceutical products, n.e.c.	466	9	yes	5	yes	1	
Medicines, pharmaceutical products, undefined	467	9	yes	5	yes	1	
Hospital charges	468	9	yes	5	no	1	
Health charges, n.e.c.	469	9	yes	5	no	1	
Hire of therapeutic appliances	471	9	yes	5	no	1	
Purchase of motor vehicles (other than motor cycles)	501	10	yes	6	yes	1	
Purchase of motor cycles	502	10	yes	6	no		
Purchase of caravans (other than selected dwelling)	503	10	yes	6	no		
Purchase of trailers	504	10	yes	6	no		
Purchase of bicycles	505	10	yes	7	yes		
Petrol	506	10	yes	6	yes		
Diesel fuel	507	10	yes	6	no		
LPG and other gas fuels	508	10	yes	6	no		
Oils, lubricants and additives	509	10	yes	6	yes		
Compulsory registration and insurance of motor vehicles (other than motor cycles)	510	10	yes	6	yes		
Other insurance of motor vehicles (other than motor cycles)	511	10	yes	6	yes	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Compulsory registration and insurance of motor cycles, caravans and trailers	512	10	yes	6	yes	1	
Other insurance of motor cycles, caravans and trailers	513	10	yes	6	no	1	
Batteries	514	10	yes	6	no	1	
Tyres and tubes	515	10	yes	6	no	1	
Motor vehicle electrical accessories (purchased separately)	516	10	yes	6	no	1	
Vehicle parts, n.e.c. (purchased separately)	517	10	yes	6	no	1	
Vehicles accessories, n.e.c. (purchased separately)	518	10	yes	6	no	1	
Crash repairs	519	10	yes	6	yes	1	
Vehicle servicing (including parts and labour)	520	10	yes	6	yes	1	
Drivers licences	521	10	yes	6	yes	1	
Parking fees	522	10	yes	6	yes	1	
Driving lessons	523	10	yes	6	no	1	
Subscription to motor organisations	524	10	yes	6	yes	1	
Vehicle hire and leasing expenses (non-holiday)	525	10	yes	6	no	1	
Vehicle charges, n.e.c.	526	10	yes	6	no	1	
Rail fares	527	10	yes	6	yes	1	
Bus, tram fares	528	10	yes	6	yes	1	
Water transport fares	529	10	yes	6	no	1	
Combined bus/tram/rail/ferry fares	530	10	yes	6	yes	1	
Public transport fares, undefined	531	10	yes	6	no		
Taxi fares	532	10	yes	6	yes		
Air fares (excluding holidays)	533	10	yes	6	no		
Removalist fees	534	10	yes	6	no		
Freight charges, n.e.c.	535	10	yes	6	no		
Television	551	11	yes	7	yes		
Television aerial	552	11	yes	7	no		
Radio/stereo/hi-fi equipment	553	11	yes	7	yes	1	
Video cassette recorders and equipment	554	11	yes	7	yes	1	
Home computer equipment	555	11	yes	7	yes	1	
TV games	556	11	yes	7	yes	1	
Blank video cassettes	557	11	yes	7	yes	1	
Pre-recorded video cassettes or discs	558	11	yes	7	no	1	
Compact discs and records (audio)	559	11	yes	7	yes	1	
Audio-cassettes and tapes	560	11	yes	7	yes	1	
Electronic components, n.e.c. and undefined	561	1!	yes	7	no	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes							
Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Books	563	11	yes	7	yes	1	
Newspapers, excluding specialist newspaper type magazines	564	II	yes	7	yes	1	
Magazines and comics	565	11	yes	7	yes	I	
Other printed material	566	11	yes	7	no	1	
Photographic equipment	567	11	yes	7	yes	1	
Photographic film and chemicals (including developing)	568	11	yes	7	yes	1	
Sunglasses (excluding optical)	569	11	yes	8	yes	1	
Optical goods n.e.c.	570	11	yes	7	no	1	
Studio and other professional photography	571	11	yes	7	no	1	
Musical instruments and accessories	572	11	yes	7	no	I	
Purchase of boats	573	11	yes	7	no	1	
Boat parts and accessories	574	11	yes	7	no	I	
Toys	576	11	yes	7	yes	1	
Camping equipment	577	11	yes	7	no	1	
Sports equipment, n.e.c.	578	11	yes	7	yes	1	
Recreational equipment, n.e.c. (incl. above ground pools)	579	11	yes	7	yes	1	
Lottery tickets	580	11	no			1	No Gambling in BS
Lotto-type games and Instant Lotto (scratch cards)	581	11	no			1	
TAB, on course betting, etc.	582	11	no			1	
Poker machines and ticket machines	583	11	no			1	
Blackjack, roulette and other Casino-type games	584	11	no			1	
Gambling, n.e.c.	585	11	no			1	
Gambling, undefined	586	11	no			1	
Hire of television	587	11	yes	7	no	1	
Hire of video cassette recorder	588	11	yes	7	no	1	
Hire of video cassette tapes and TV games	589	11	yes	7	yes	1	
Membership of video cassette library	590	11	yes	7	no	1	
Repairs to audio-visual equipment	591	11	yes	7	no	1	
Repair insurance for audio-visual equipment	592	11	yes	7	no	I	
Repair of optical and photographic equipment	593	11	yes	7	no	1	
Repair of sports equipment	594	11	yes	7	no	1	
Repair of other recreational equipment	595	11	yes	7	no	1	
Registration and insurance of boats	596	11	yes	7	no	1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Commodity Group	Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes						
	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Health and fitness studio charges	597	11	yes	7	no	I	
Sporting club subscriptions	598	II	yes	7	yes	I	
Squash court hire charges	599	11	yes	7	no	I	
Ten pin bowling charges	600	11	yes	7	no	I	
Skiing fees/fares	601	11	yes	7	no	I	
Green fees (golf, bowls, croquet, etc.)	602	11	yes	7	no	I	
Sports lessons	603	11	yes	7	no	I	
Sports equipment hire	604	11	yes	7	no	I	
Hire of other recreational equipment	605	11	yes	7	no	I	
Sports services charges, n.e.c.	606	11	yes	7	yes	I	
Spectator admission fees to sport	607	11	yes	7	yes	I	
Cinema admission charges	608	11	yes	7	yes	I	
Live theatre admission charges	609	II	yes	7	yes	I	
Admission fees/cover charges (dances, night clubs, clubs, etc.)	610	11	yes	7	no	I	
National park and zoo fees	611	11	yes	7	yes	I	
Art gallery and museum fees	612	II	yes	7	yes	I	
Day trips and other excursions, n.e.c.	613	11	yes	7	yes	I	
Amusement arcade machines	614	11	yes	7	no	I	
Club and association subscriptions (excl. sports clubs)	615	11	yes	7	no	I	
Cultural and other non-sporting lessons	616	11	yes	7	no	I	
Entertainment and recreational services, n.e.c. and undefined	617	11	yes	7	no	I	
Animal purchases	619	11	yes	4	no	I	
Animal food	620	11	yes	4	yes	I	
Veterinary charges	621	11	yes	4	yes	I	
Animal minding charges	622	11	yes	4	yes	I	
Animal charges and expenses, n.e.c.	623	11	yes	4	yes	I	
Airfares—Australia—holiday	624	11	yes	7	no	I	
Railfares—Australia—holiday	625	11	yes	7	no	I	
Busfares—Australia—holiday	626	11	yes	7	no	I	
Other fares (incl. vehicle hire—Australia—holiday)	627	II	yes	7	no	I	
Holiday petrol—Australia	628	11	yes	7	yes	I	
Holiday Motel/hotel charges—Australia	629	11	yes	7	yes	I	
Holiday flat/house charges—Australia	630	11	yes	7	yes	I	
Caravan park fees/hire of caravan—Australia	631	11	yes	7	no	I	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Other accommodation charges —Australia	632	11	yes	7	yes	1	
Airfare inclusive package tours—Australia	633	11	yes	7	no	1	
Other package tours — Australia	634	11	yes	7	yes	1	
Air fares—Overseas—holiday	635	11	yes	7	no	1	
Other fares— Overseas — holiday	636	11	yes	7	no	1	
Motel/hotel charges — Overseas—holiday	637	11	yes	7	no	1	
Other accommodation charges —Overseas holiday	638	11	yes	7	no	1	
Airfare inclusive package tours—Overseas	639	11	yes	7	no	1	
Other package tours	640	11	yes	7	no	1	
Toothpaste, toothbrushes and other oral hygiene	661	12	yes	8	yes	1	
Toilet soap	662	12	yes	8	yes	1	
Talcum powders and deodorants	663	12	yes	8	yes	1	
Toiletries and cosmetics, n.e.c.	664	12	yes	8	yes	1	
Shavers, hairdryers and other personal Shavers, hairdryers and other personal toiletry products	665	12	yes	8	yes	1	
Hair services (male)	666	12	yes	8	yes	1	
Hair services (female)	667	12	yes	8	yes	1	
Hair services (undefined)	668	12	yes	8	yes	1	
Other personal care services	669	12	yes	8	yes	1	
Watches and clocks [watches]	701	13	yes	8	yes	0.5	
Watches and clocks [clocks]	701	13	yes	4	yes	0.5	
Jewellery, n.e.c.	702	13	yes	8	yes	1	
Travel goods, handbags, umbrellas, wallets, etc [travel bags]	703	13	yes	4	yes	0.5	
Travel goods, handbags, umbrellas, wallets, etc [other]	703	13	yes	3	yes	0.5	
Pens, paper and stationery	704	13	yes	4	yes	1	
Stationery equipment, n.e.c.	705	13	yes	4	yes	1	
Ice	706	13	yes	7	no	1	
Miscellaneous commodities, n.e.c.	707	13	yes	4	yes	1	Christmas tree, b'day candles & holders
Interest component of fixed-term loans and mortgages for other property	708	13	no			1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes							
Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Interest payments on credit card purchases (goods and services)	709	13	no			1	Allocated across corresponding goods
Interest payments on credit card cash advances	710	13	no			1	
Primary school fees (government)	711	13	yes	4	yes	1	
Primary school fees (non-government)	712	13	yes	4	no	1	
Secondary school fees (government)	713	13	yes	4	yes	1	
Secondary school fees (non-government)	714	13	yes	4	no	1	
Tertiary education fees (including HECS payments)	715	13	yes	4	no	1	
Fees for other educational courses	716	13	yes	4	no	I	
Private education tuition fees	717	13	yes	4	no	I	
Payments for other property — general council rates	718	13	no			1	
Other payments—other property	719	13	no			1	
Government duties and charges separately identified	720	13	yes	0	yes	1	Stamp duty
Selected financial institution charges	721	13	yes	0	yes	I	Loan fees
Alimony or maintenance payments	722	13	no			1	
Cash gifts, donations to charity	723	13	no			1	
Pocket money or allowance	724	13	no			1	
Union dues, professional association subscriptions	725	13	no			1	
Legal fees	726	13	yes	0	yes	1	House purchase
Fees, n.e.c.	111	13	no			1	
Fines	728	13	no			1	
Personal-belongings insurance	729	13	yes	0	no	1	
Personal advertising etc.	731	13	yes	4	no	1	
Non-holiday accommodation	732	13	yes	4	yes	1	School camp
Repair of miscellaneous goods	734.	13	yes	4	no	1	
Miscellaneous services, n.e.c.	735	13	yes	4	no	1	
State deficit levy (Vic only)	736	13	no			1	
Income tax	751	14	no			I	
Mortgage payments — principal (selected dwelling)	752	15	yes	0	yes	I	
Principal component of mortgage repayment for other property	753	15	no			1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Detailed Concordance Between Three Digit HES Codes and BS Two Digit Codes

Commodity Group	HES 3 Digit Code	HES 2 Digit Code	Included in scope of BS study?	BS 1 Digit Code	Included in Budget Standard?	Share in this BS group	Comments
Purchase of selected dwelling or other property (excl mortgage payments)	754	16	no			1	
Additions/extensions	755	16	no			1	
Internal renovations	756	16	no			1	
Insulation	757	16	no			1	
Inground swimming pool	758	16	no			1	
Outside building	759	16	no			1	
Landscape contractor	760	16	no			1	
Outside improvements, n.e.c.	761	16	no			1	
Other capital housing costs, n.e.c.	762	16	no			1	
Superannuation and annuities	771	17	no			1	
Life insurance	772	17	no			1	

APPENDIX I.C: The Concordance Between the Budget Standards Commodity Classification System and the Household Expenditure Survey Commodity Code List (Continued)

Budget Standards 1 Digit Code

HES 1 Digit Code	Hous- ing	Energy	Food	Cloth- ing	House- hold Goods and Services	Health	Trans- port	Leisure	Personal Care	Total
	0	1	2	3	4	5	6	7	8	
1 Current housing costs	9									9
2 Fuel and power		7			1					8
3 Food and non-alcoholic beverages			87							87
4 Alcohol			12							12
5 Tobacco									3	3
6 Clothing and footwear				41						41
7 Furnishings and equipment					38					38
8 Services and operation					25		2			27
9 Medical care and health						20				20
10 Transport						34	1			35
11 Recreation and entertainment					5		74	1	7	87
12 Personal care									9	9
13 Miscellaneous goods and services	4			1	15			1	2	12
14 Income tax (imputed)									1	1
15 Mortgage repayment - principal		1							1	2
16 Other capital housing									9	9
17 Superannuation and life insurance									2	2
Total	14	7	99	42	84	20	34	78	12	35 424

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CHAPTER 2: RESEARCH DESIGN AND METHODS*

2.1 Organisation of the Project

In developing a set of budget standards for Australia, the aim has been to design the project so that it could benefit from the developmental work on budget standards that has taken place elsewhere whilst at the same time trying to overcome some of the practical limitations encountered by others. An important aspect of the research thus revolves around how the project itself was structured and the research conducted.

The overall scope of the project was determined by the Department of Social Security (DSS) who provided the funding and developed the Tender Brief for the project as part of its ongoing program of work on adequacy. After a call for submissions, the Social Policy Research Centre was awarded the contract to undertake the research. The scope of the project is set out in Appendix 2.A which formed part of the contract between the Commonwealth Government and the University of New South Wales.

In relation to the actual conduct of the research, it was decided that the bulk of the work would be undertaken within the Budget Standards Unit (BSU) established specifically for this purpose within the Social Policy Research Centre. The researchers working in the BSU were thus required to prepare the separate budgets themselves unlike in the United Kingdom where the Family Budget Unit served a coordinating role for budgets that were developed externally by several groups of independent researchers with skills in specific areas (Bradshaw, 1993a).

This approach to constructing the budget standards has one very important consequence. Its significance can best be appreciated by noting that one of the practical problems confronted when developing a budget standard concerns how the standard of living to which the budget standard itself applies can be held fixed across the different components that enter into its construction. One of the limitations of the UK approach, for example, is the inherent difficulty of ensuring that those who are developing the food budget adopt the same underlying standard as those who are developing the health, housing or clothing budgets.

Achieving such cross-budget consistency presents a major challenge for budget standards research, made all the more difficult if the different budget components are developed independently. Although there is no way of resolving this problem completely, the BSU approach at least recognises the issue and attempts to address it.

By adopting an in-house team-based approach, the BSU was better able to overcome some of these problems through the daily interaction between those working on the different component budgets. Although it would be too much to claim that this avoided the problem of cross-budget comparability entirely, it certainly minimised the problem by providing a research environment within which ideas and practical suggestions could be tested and brought together within a consistent framework.

Aside from this different organisational approach, it was decided at an early stage that the work of the BSU would take as its template the budget standards that have been developed by the UK Family Budget Unit. This involved using the UK budgets as the starting point and then

modifying them to suit Australian circumstances or to conform to the available data in this country.

This approach of what might be called the incremental development of budget standards mirrors what other countries have done in building on the work that has gone before; even the UK budget standards work drew heavily on what had been done previously in Sweden, Canada and Norway (Bradshaw, 1993a, p. 4). In this way, the Australian budget standards have been able to benefit from the knowledge and experience gained in previous research on budget standards, but within a framework that overcomes some of its limitations.

In attempting to benefit most from the recent UK work, Professor Jonathan Bradshaw, Director of the Family Budget Unit at the University of York and the person who, above all others, has been responsible for the revival of interest in budget standards, was appointed external consultant to the project and provided advice and assistance throughout its duration, including during two visits to the BSU.¹

Two other features of the way the project was structured were introduced in an attempt to address some of the limitations of the budget standards method that have already been described. The first of these was directed at mobilising external Australian expertise so that the work of the BSU could benefit from existing expert knowledge relating to issues such as previous research, prevailing community standards and the availability of relevant data.

To this end, a Budget Standards Unit Steering Committee was established containing relevant experts who met regularly throughout the course of the research and provided advice to the BSU, as they also did on the many other occasions when their advice and assistance was requested.

The BSU Steering Committee contained members from the relevant Divisions of the Department of Social Security, from the two leading non-government welfare agencies (the Australian Council of Social Service, ACOSS, and the Brotherhood of St. Laurence), and experts in the fields of nutrition, housing, living standards, clothing needs, family formation, the needs of children and financial counselling.

The BSU Steering Committee also contained members with detailed knowledge of the statistical data of relevance to the development of budget standards, including from the Australian Bureau of Statistics, the Australian Institute of Family Studies, the Australian Institute of Health and Welfare and the Australian Consumers' Association."

A full listing of the membership of the BSU Steering Committee is provided for information in Appendix 2.B.

The second structural feature of the budget standards project concerned its use of a series of focus group discussions to inform the development of the budgets. These focus groups were asked to provide feedback on the articulation of the budget standards themselves, to advise the

¹

It should be emphasised, however, that although the BSU has benefited extensively from Professor Bradshaw's advice, it unreservedly accepts full responsibility for its work.

²

It should be emphasised that while the project has gained enormously from the advice provided by the Steering Committee, its members are in no way responsible for the results that have been produced.

BSU researchers on the items included in the budgets before the pricing process had commenced, and to comment on the initial budget costings after they had been produced.³

The main aim of the focus group discussions was thus to provide an initial external assessment of the budgets so that they could be modified to conform more closely with prevailing community standards, attitudes and behaviour. In other words, their role was to attempt the first validation of the budgets and to guide the BSU researchers to areas where adjustments were required.

In order that they could fulfil this role effectively, it was essential that the focus groups could provide informed comment on the draft budgets. To this end, a series of groups were constituted which were comprised of individuals belonging to households with the same general characteristics as those for which budget standards were being derived—single people living alone, couples with children, sole parents, older people, and so on.

In order to ensure that the focus groups were independent of the research itself, the selection of participants and the actual conduct of the focus group discussions was undertaken by ACOSS (in Sydney) and by the Brotherhood of St. Laurence (in Victoria), though for obvious reasons, staff of the BSU were present at each meeting.

In addition to providing feedback on the budgets relevant to the composition of each group, an additional series of focus groups was constituted to provide feedback on how the budgets would need to be modified to make them more relevant to household circumstances other than those to which they were designed.

Four such focus groups were brought together (each of them in Victoria). Their role was to advise on the relevance of the draft budgets to the circumstances of families with a member with a disability, families living in a rural locality, non-custodial parents who have regular access to a child from a previous relationship, and larger families (with three or more children).

Although it would not be wise to claim that the feedback provided by these focus groups means that the budgets have been 'democratised' in any systematic manner, their role in the project was to ensure that the budgets were subjected to an additional 'reality check' from those most likely to actually have experienced them before the budgets standards were finalised.⁴

The use of focus groups represents an important component of the attempt to validate the budget standards, but it should be recognised that they were supported in this task by several other features of the project. The first of these operated through the Steering Committee, which engaged in extensive discussion of all stages of the research, including assisting in the development of the norms in each budget area (food, housing, transport, health care, and so on), reviewing the extent of conformity between the budget standards and commenting on comparisons between the budget standards and the available data on actual household expenditure patterns.

³ Further detail on how the groups were constituted, how they operated and with what impact is described later.

⁴ There is a case to be made in support of the view that this part of the project could be expanded later to assess the acceptance of the standards among broader groupings of Australians. Such an exercise would provide greater confidence that the budgets are relevant to Australian conditions and values and, where they are not, to identify what needs to be done to make them so.

A second input to the development of the budget standards was provided by Professor Bradshaw, the Project Consultant, who visited the BSU on two occasions during the conduct of the research and provided extensive advice on what should be done and what had been done. The first of these visits was timed to coincide with the initial meeting of the BSU Steering Committee, at which the broad parameters of the project were discussed and established. Finally, he also read all of the draft component budgets (Chapters 3 to 11 below) and provided detailed comments on them.

An important source of information used to guide and inform the development of this aspect of the research was data from the *1993-94 Household Expenditure Survey* and other relevant statistics collected by the ABS and other bodies. Where a discrepancy was observed between the preliminary budget costings and behavioural data pertaining to each budget area, the reasons for this were investigated and action taken to revise the budgets where this was deemed appropriate and practical.

It should be emphasised, however, that even where discrepancies between the budget standards and the observed behavioural data were identified, this did not always lead to the budgets being revised. There were many occasions where it was decided that the discrepancy reflected the fact that resource constraints prevented households from being able to attain the appropriate norms articulated in the budget standards.

In these instances, the norms were reaffirmed—as is appropriate in the development of a budget standard. Only where the comparisons indicated that the normative budgets were well out of line with community practice as reflected in the behavioural data and where the norms themselves were not firmly grounded, were the budget standards revised to close the gap.

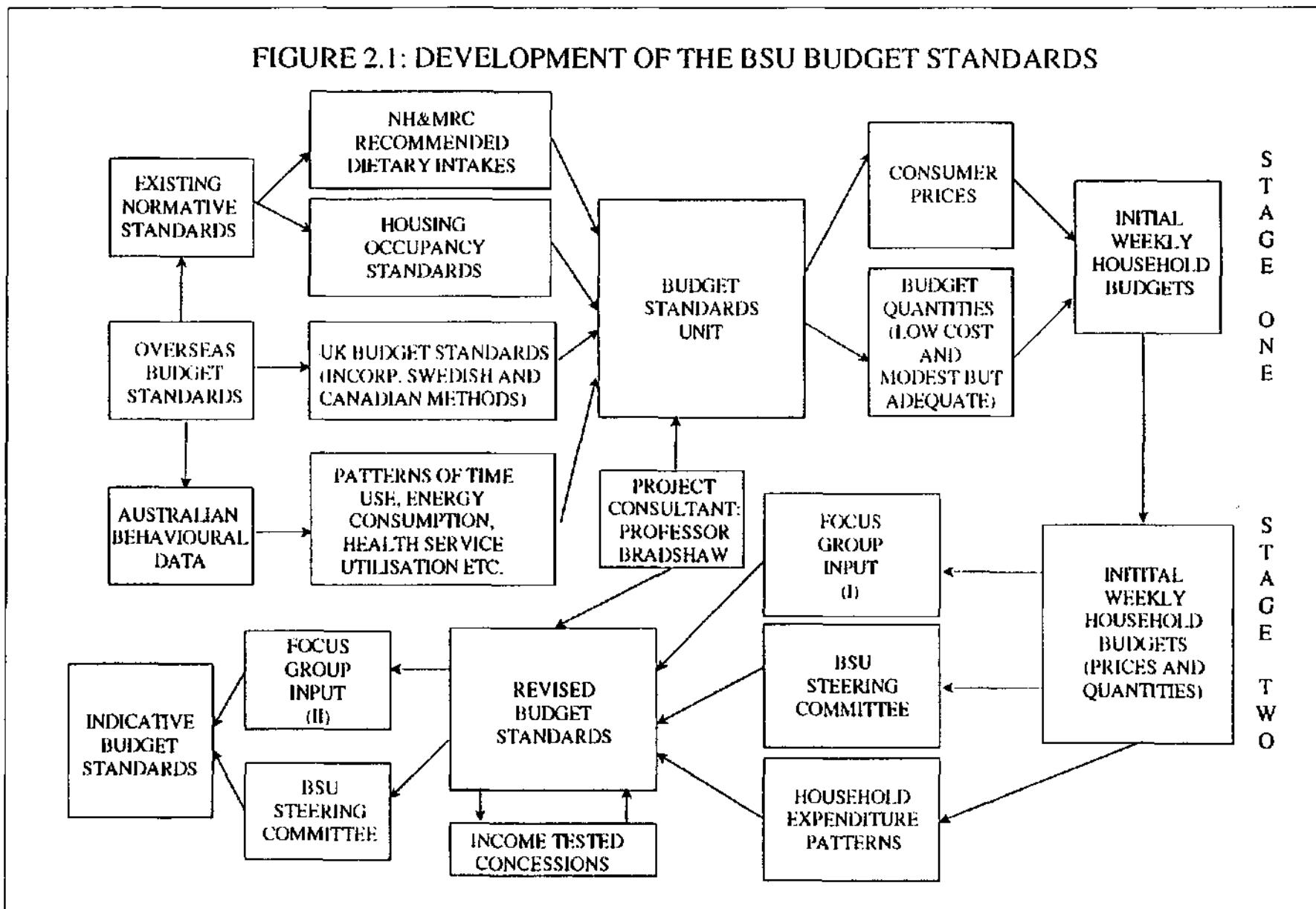
The overall organisation of the research is illustrated in Figure 2.1 which shows how the various elements fit together in the development of the standards. Aside from the treatment of concessions shown towards the end of the process (which is discussed separately later) the research sequence shown in Figure 2.1 indicates how each of the features described above impacted upon the development of the standards.

This description of the organisation of the budget standards project indicates that in practice, several different methods were used to compare the expert judgements from which the budget standards were initially developed with the patterns of behaviour common among Australian households. This process can never be perfect, nor would it remain so for long if it were to be. That is why it is important to recognise that the standards that have been produced are indicative only.

Social norms and patterns of behaviour are themselves constantly changing in the face of the interactions between rising living standards, technological change and revised community attitudes and values. This highlights the fact that budget standards should be seen as requiring constant review and revision as these important aspects of the social fabric themselves evolve over time. A budget standard can never be static but will always need to be adjusted to the material circumstances, social norms and values to which it applies.

It is important to emphasise here that the fact that budget standards will never be perfect does not mean that they cannot play a role in the determination of adequacy. The social changes

Figure 2.1: Development of the BSU Budget Standards



described in the previous paragraph will have similar implications for all other approaches to the adequacy question. Society itself is not static and it would be unwise to claim that the determination of adequacy can ignore the need to respond to societal changes that give sense and meaning to notions of need.

2.2 Research Methodology

Having described the general organisation of the project, the remainder of this chapter describes the specific assumptions and methods used to develop the indicative budget standards. The aim of the discussion is to provide a consistent account of the overall research framework and to explain why certain decisions were taken. Further detail of the methods employed in each budget area and the data sources employed to give effect to them are provided in Chapters 3 to 11.

As already observed, in general terms, the methodology adopted by the BSU follows that developed incrementally by previous research on budget standards, modified where appropriate to fit Australian conditions and data sources. These have been checked at each stage of the research by seeking the input of members of the BSU Steering Committee and the consultant to the project, Professor Bradshaw.

It needs to be emphasised, however, that many of the issues discussed below are not amenable to any single 'correct' solution. There are thus many aspects of the approach finally adopted that remain subject to legitimate criticism. A project such as this cannot hope to provide the final word on budget standards for Australia, nor does it claim to. Rather, its aim is to provide, for the first time in Australia, a 'state of the art' application of a well-developed methodology for deriving a set of budget standards relevant to the 1990s.

The fact that the budget standards presented here may need to be revised in the light of further comment and feedback from both expert and community groups, as well as in light of new or improved sources of data or additional information on normative standards explains why the aim of the project has been to produce an *indicative* (as opposed to *definitive*) set of Australian budget standards.⁵

The research has been guided throughout by two of the strengths of the budget standards method described in the previous chapter—its *transparency* and its *flexibility*. In response to the former, the methods and data used in the research have been explained fully at each stage in the analysis. In relation to the latter, the results have been presented in a format designed to allow others to vary the methods and assumptions used here in order to assess what difference it makes to the final results. The value of this flexibility will be illustrated later, when some of the BSU assumptions will be changed and their impact on the budgets explored.

The research as a whole has also been shaped by an underlying desire for *simplicity* wherever possible. If budget standards are to play a role in improving the adequacy of Australian income support payments, they will need to receive a degree of acceptance in the Australian community. This requires that the methods used to derive the standards are explained in terms that most Australians can comprehend.

5

The BSU researchers are of the view that there is much to be gained from exposing the budget standards presented here to further external scrutiny and assessment.

Unfortunately, there are some areas of the research where this is not easy, due to the complexity of the methods and data used to develop the standards. However, wherever there has been a choice between alternative methods of equal relevance, the simpler method has always been chosen—or the method that can be explained in the simplest terms.

Another factor which figured heavily in the design and conduct of the research was the need for *replicability*. By their nature, budget standards are based on a complex series of judgements, about which there will always be some disagreement, or at the very least a lively debate. All that can be done with these judgements is to make them explicit so that they can be identified, debated and, if necessary, replaced.

However, in addition to such judgements, a budget standard is also based upon a vast number of practical decisions that follow logically from the judgements and which are capable of being replicated by others. This can only occur if the original methods are themselves capable of ready replication and this objective has influenced many of the methods used (for example, in relation to how the budgets were priced—as is explained further below). Such replicability is also essential if the budgets are to be re-costed at some time in the future.

One feature of research on budget standards that emerged as the work proceeded was the very large number of decisions that have to be made in each budget area before the budget standards can be fully developed. Furthermore, many of these decisions required some kind of value judgement to be made—often with very little or no basis on which to make it. Although each of these decisions is, in isolation, unlikely to have much of an impact on the results, there can be less confidence that this will be the case when they are all considered in combination.

This raises the very important question of how the final budget standards can be defended as being anything other than the complex outcome of a myriad of arbitrary decisions and 'expert' judgements? There is no simple answer to such a question.

The strength of budget standards lies in the fact that many of the judgements on which they are based will already have been articulated and put into practice in various areas of public life. These judgements are thus best described as being informed, rather than arbitrary in the normal meaning of the term. Other normative decisions will not enjoy this degree of legitimacy but have at least been exposed to the consideration of the validation processes described above.

In order to assist with the process of making judgements in areas where none currently exist, a series of 'rules of thumb' have been developed with the intention of making the judgements more explicit and more consistent. The role of these rules was to enhance the transparency of the underlying decision-making process, although it has to be acknowledged that the rules themselves do not always provide clear-cut guidance—as will become apparent later.

2.3 Articulation of the Budget Standards

Basic Issues

The starting point of the research involved identifying the standards to which the budgets themselves would apply. This is no easy exercise. However, one of the positive features of work on budget standards is precisely that it requires the components of a particular standard

of living (in terms of the consumption of goods and services as well as participation in personal and social activities) to be articulated in great detail.

Without undertaking this stage in the analysis, a budget standard cannot be derived. In undertaking such articulation, the BSU was guided by the concepts that have evolved in overseas budget standards research over the last 50 years, and by recent research on Australian living standards conducted by the Australian Institute of Family Studies (McDonald, 1993; McDonald and Brownlee, 1994) and by independent researchers such as Travers and Richardson (1993).

Articulation of the standard of living to which the budgets standards apply is the first of several key questions that need to be resolved before the standards themselves can be derived. In its recent review of the budget standards approach, DSS identified the following list of issues for resolution (DSS, 1995, p. 44):

1. What is the appropriate unit of analysis?
2. What is the standard of living which the budget standard will support?
3. What lifestyle assumptions are associated with that standard?
4. What items will be included in the basket of commodities?
5. Does the basket reflect the opinions of consumers?
6. What prices should be used to cost the basket?
7. How can the basket be applied to other households?
8. How does the basket compare with observed expenditure patterns?

Each of these questions is important and must be answered. The first question (the choice of unit of analysis) has fundamental consequences for the scope of the whole exercise and needs to be resolved at the outset. The next three questions are dependent on what the budget standards mean in terms of consumption needs satisfaction, and these determine, at least to some extent, the answer to the sixth question also.

Questions 5 and 8 refer to the validation component of the research: to what extent do the standards reflect community opinion and how closely do they resemble actual consumption behaviour? Finally, question 7 relates to the issue of *customisation*, or how the derived budgets can be modified to suit the circumstances of households in different circumstances.

The Modest But Adequate and Low Cost Standards

In relation to the articulation of the standards themselves, budgets have been derived at two standards, a *modest but adequate* standard and a *low cost* standard. The modest but adequate standard has been used as the basis for much of the overseas research on budget standards. Bradshaw (1993a) notes that the concept was first used by the United States Bureau of Labor Statistics as far back as 1948, where it was described as sufficient 'to satisfy prevailing standards of what is necessary for health, efficiency, the nurture of children and for participation in community activities' (quoted in Bradshaw, 1993a, p. 4).

Since that time, the same basic concept has continued to be used, albeit in a somewhat modified form, in the development of budget standards in those countries that have undertaken the task. In the US itself, the issue was explored in detail by an Expert Committee headed by Harold Watts which reported in 1980 (Watts, 1980). The Committee attempted to find pragmatic solutions to the problem of identifying normative standards which could be

objectively and regularly measured even though they embody many 'subjective and value-laden requirements' (Watts, 1980, p. iii).

The Committee developed the concept of the *prevailing family standard* which 'affords full opportunity to participate in contemporary society and the basic options it offers...lying well above the requirements of survival and decency, and well below levels of luxury as generally understood' (Watts, 1980, p. viii). The standard was assumed to be approximated by the median expenditure level of a family of two non-aged adults and two children.

A very similar notion has been adopted in other countries, including in the UK where the 'modest but adequate' budgets developed by the Family Budget Unit represent the same standard. It has also been used as the basis for deriving standard budgets in Scandinavia. Thus, for example, the budget standards for Denmark (which are typical of those for Sweden and Norway also) aims to find a level of 'reasonable consumption' for households which is 'usual in relation to active participation in the society and widely accepted by the population' (Center for Alternativ Samfundsanalyse, 1993, p. 65).

The Watts Committee also developed three other normative standards. The first of these was the *social minimum standard* which 'lies in a boundary zone below which social concern has been traditionally and properly directed to potential issues of deficiency and deprivation. At this level and increasingly at lower levels, the likelihood of damage from inadequacies in one or another aspect of material subsistence grows correspondingly.'

The second, the *lower living standard* is one in which 'maintaining a family at this level requires frugal and careful management, and leaves little room for choice'. The Committee took the view that this standard was one below which it would become increasingly difficult to maintain 'what Americans regard as an acceptable standard of living. The social minimum standard was set at half the prevailing standard, while the lower living standard was established at two-thirds of the prevailing standard.

The third standard developed by the Watts Committee was referred to as a *social abundance standard*. This standard was designed to 'reflect the living standard at which families can enjoy numerous luxury features...and will in general be relieved of most pressing needs' (Watts, 1980, p. 60). This standard was seen as 'an indicator of the improved standards that society seeks for itself (ibid., p. 60). The Committee noted (pp. 60-61) that as real consumption levels increase over time, the social abundance standard would gradually become the prevailing family standard—emphasising the *relative* nature of all four of their proposed standards.

In the short-term, however, the social abundance standard was set at a level approximately one-and-a-half times the prevailing family standard, or around three times the social minimum standard (Watts, 1980, Table 1V-I). Using data from the 1972-73 *Consumer Expenditure Survey*, the Committee estimated that around 18 per cent of the American population enjoyed a living standard at or above the social abundance level (Watts, 1980, p. 61).

In the work of the UK Family Budget Unit, a 'low cost'¹ budget was developed which was intended to be located between Watts' social-minimum and lower-living standards (Yu, 1993, p. 197). In the United States, the 'Basic Needs Budgets' estimated by Renwick (1993) reflect the 'normal expenditures required to meet basic needs or achieve decency' (Renwick, 1993, p. 574) appears to be similarly located.

The budget standards recently derived for Hong Kong estimate a 'minimum acceptable standard of living' that ties somewhere above absolute subsistence in that it includes 'the

absolute subsistence minimum needed to simply maintain life (and)...allow people to take part in social relationships, and follow the customary behaviour expected of them in Hong Kong' (MacPherson, 1994, p. 7).

It is clear that there are certain basic similarities between the conceptions underpinning the budget standards developed in each country and the Watts Committee's articulation of the prevailing and social minimum standards. It is also important to note that both standards embody not only appropriate levels of *material consumption* sufficient to satisfy needs for food, housing and so on, but also make allowance for *participation in relevant socially-endorsed activities*.

It is this feature that distinguishes the modern approach to budget standards from earlier work which focused exclusively on material needs expressed in absolute or subsistence terms. As noted earlier, even the 'dollar-a-day' poverty line developed by the World Bank is intended to be sufficient to cover the costs of basic material needs *and* allow some limited participation in socialactivity.

In the development of indicative budget standards for Australia, the *modest but adequate standard* has been set as one which affords full opportunity to participate in contemporary Australian society and the basic options it offers. It is seen as lying between the standards of survival and decency and those of luxury as these are commonly understood. It attempts to describe the situation of a household whose living standard falls somewhere around the median standard of living experienced within the Australian community as a whole.

Because the modest but adequate standard corresponds broadly to the level of living achievable at around the median household standard of living, it is very similar to the US concept of the prevailing family standard, to the 'standard budgets' estimated in Scandinavia and to the UK modest but adequate standard derived by the Family Budget Unit.

The second concept is a *low cost standard*, which represents a level of living which may require frugal and careful management of resources but would still allow social and economic participation consistent with community standards and enable the individual to fulfil community expectations in the workplace, at home and in the community.

Whilst it should not be seen as a minimum standard, the low cost standard is intended to describe a level below which it becomes increasingly difficult to maintain an acceptable living standard because of the increased risk of deprivation and disadvantage. In round terms, the low cost budget can be thought of as corresponding to a standard of living which is achievable at about one-half of the median standard for the community as a whole.

In its description, the low cost standard bears many similarities to the US lower living standard which was set by the Watts Committee at around two-thirds of the prevailing (modest but adequate) standard. However, the Project Brief (Appendix 2.A, p. 5) indicates that the low cost budgets should fall around half of the level of median household expenditure, suggesting that they should correspond more to the social minimum standard proposed by Watts.

This difference is important because the degree of social participation embodied in the specification of the low cost budget is unlikely to be affordable at a level of household expenditure closer to half than to two-thirds of the median level. This issue will be discussed in more detail in Chapter 12 when the budget standards are presented and compared with expenditure patterns revealed in the latest *Household Expenditure Survey*.

To what extent is it legitimate to regard the low cost budget standard as forming the basis for a new poverty line? Although this is to some degree inevitable, it is worth noting that the living standard to which the low cost budgets apply does not correspond directly to the description on which the poverty line developed for Australia in the 1970s by the Commission of Inquiry into Poverty (the 'Henderson poverty line') is based (Commission of Inquiry into Poverty, 1975).

Both the Poverty Commission itself and the Melbourne University researchers who originally developed the concept described the poverty line as being set at 'an austere low level' and that, as a result, 'It cannot be seriously argued that those below this austere line, whom we describe as "very poor", are not so' (Commission of Inquiry into Poverty, 1975, p. 13).⁶ Those whose incomes were below this level were described as 'very poor', while those whose incomes were less than 20 per cent above it were described as 'rather poor'—the two groups together being described as 'poor' (Commission of Inquiry into Poverty, 1975, p. 13).

In light of these distinctions, can it be claimed that a low cost budget standard which, in the 1990s, is designed to involve frugal management of resources yet still permit an accepted degree of economic and social participation represents an unchallengeable standard of austerity?

Or is it more appropriate to compare the low cost standard for the 1990s with the higher poverty line (set 20 per cent above the poverty line itself) which the Poverty Commission used to define those whose circumstances in the 1970s defined them as 'rather poor'?

It is not possible to ascertain which of these alternatives is superior, in part because the Poverty Commission did not explore in detail what standard was associated with its alternative poverty line standards. It is, however, worth observing—as many others have done previously—that the methods used to update the Henderson poverty line since its use by the Poverty Commission have resulted in an increase in its level, not only in real terms but also relative to average incomes (Harding and Mitchell, 1992; Gruen, 1995). This makes the task of deciding the living standard to which the poverty line now corresponds all the more difficult.

An indication of the standard of living that could be supported by a Henderson poverty line income in the 1960s can be found in the study undertaken by Podder (1978) for the Poverty Commission, in which the actual expenditure patterns of households whose incomes were below the Henderson poverty line were investigated. Even here, however, the problem remains of trying to ascertain whether or not these expenditures correspond to a low cost, frugal but still participatory standard of living. These difficulties should be borne in mind when the low cost standards are compared (in Chapter 12) with the updated poverty line.⁷

⁶ Virtually the same claim is made on page one of Henderson, Harcourt and Harper (1970).

⁷ Another attempt to articulate what the poverty line means in terms of a standard of living is to be found in the initial publication of results from the 1966 study of poverty in Melbourne provided by Harper (1967), which contains the following comments: 'Poverty has in the past often been interpreted to include both the case where income is inadequate to meet the needs of a family and the case where income, while adequate, is expended in a manner that fails to provide the recipients with the minimum standards of food, clothing and housing. We have decided to avoid the subjectivity and value judgements involved in any examination of the manner and efficiency with which family income is disposed of, and restrict our investigation to the adequacy of income in relation to the nature and size of the family for whose needs it has to provide' (Harper, 1967, p. 263). Although this statement makes it apparent that the poverty line was formulated in relation to the cost of a minimum budget, its relationship to the specific version of a low cost budget as formulated here remains unclear.

Despite these ambiguities over the level to which the low cost standard applies and its relation to the Henderson poverty line, it is important to note that by specifying both standards relative to the median level of living, the *relative* nature of the budget standards approach is made explicit.

A similar approach has been used in recent poverty research which, in the absence of an agreed poverty line, has utilised a relative low income standard tied either to median income (Harding and Mitchell, 1992; Forster, 1993) or to mean income, as in the case of the statistics on households below average income (HBAI) published by the UK Department of Social Security (United Kingdom Department of Social Security, 1992).

The main difference is that in budget standards, the focus is on direct estimation of the standard of living in terms of levels of consumption and social participation, so that comparison is made with the median level of household expenditure rather than with median household income. The grounds for this distinction rest on the fact that the former relates more directly to the *actual* standard of living, while the latter provides an indirect indication of the standard of living that could *potentially* be achieved within existing monetary resources.

Before leaving this discussion, it is informative to explore why it is necessary, in light of the fact that the two standards are expressed relative to the *actual* median level, to go to the effort (and expense) of developing a budget standard in the first place. Why not simply observe the median (and half-median levels) directly and identify these with the modest but adequate and low cost standards, respectively?

There are two related reasons why not. The first (addressed in more detail in Chapter 12) relates to the fact that the median level of *expenditure* does not necessarily correspond to the median *standard of living*. The main reason why these differ rests on the fact that the needs of households of differing size and composition differ, so that the ability of a given level of expenditure to satisfy needs and thus sustain a given standard of living will depend upon how the population divides into households with differing characteristics.

This problem could be overcome if a measure of the relative needs of different households (an equivalence scale) was available, but this would defeat the purpose of deriving a set of budget standards, part of whose rationale is to provide an indication of how needs vary with household size and composition.

One way around this problem would be to derive the median level of expenditure, not for all households together, but separately for particular groups of households with the same (or similar) characteristics. This approach would, however, give rise to a more formidable problem. This arises because of the fact that the actual expenditures of different households reflect not only the needs that they have, but also the resources available to them to meet those needs.

Sole parent households, for example, spend less than couple households with the same numbers of children not just because they need less, but also because their incomes are generally lower. The same can be said when comparing the expenditures of couples without children above and below pension age.

It follows that use of the median of actual expenditures of different households provides no basis for establishing an *independent* standard for assessing the adequacy of incomes or living standards. All that it will do is to reproduce the current patterns of resource constraints existing between different groups in the population. Budget standards were designed

specifically to overcome this problem by starting explicitly from a normative basis which ignores the extent to which actual spending patterns are constrained by the available level of resources.

Community Norms

In order to further develop the modest but adequate and low cost standards, it is necessary to formulate in more detail what the modest but adequate and low cost concepts actually mean in practice. This involves building on existing social norms (or developing new ones) and translating these into specific operational measures. Wherever possible, these norms should be based on prevailing community standards and should reflect an endorsed assessment of need in specific areas.

Where social norms already exist, it has been assumed that these embody a degree of community acceptance of the judgements underlying them. In areas where this is not the case, new norms have been developed from those used in overseas research on budget standards. These norms need to be validated by testing them against community feedback (in the current case through the use of focus groups) and by comparing them with Australian behavioural data.

Data on household expenditure patterns have a role to play in this context, although these data are intended to validate the budget standards once they have been derived rather than to form the basis for their derivation in the first place, for the reasons explained earlier. Wherever possible, the research has been guided initially by the standards developed in the UK and by the principles underlying that work, in particular by the kinds of community norms which were used (though not, of course, by the actual UK norms themselves).

The existing normative judgements which form the basic building blocks of each component of the household budgets are assumed to reflect expert opinion derived from a variety of different sources. In some cases, these normative judgements embody prevailing community standards, as reflected for example in legislation relating to minimum standards for housing, or the recommended dietary intakes developed and published by the National Health and Medical Research Council (NHMRC, 1991).

In general, however, norms only exist in areas where there has been an active participation by government in promoting community well-being through the enactment of public policies guided by regulations and articulated standards. This leaves many areas where public policy has not encroached, with the result that there are no normative standards on which to build.

Examples of such areas include most items of clothing and footwear (with the exception of standards relating to items of clothing designed to protect against ultra-violet radiation), most household goods and services (where the prevailing standards apply only to broad quality aspects) and many components of personal care, energy, transport and leisure.

In all of these areas, new norms have been used as the basis for developing the budget standards, these being developed as part of the research, but subject to scrutiny by the processes described earlier, specifically through the advice provided by the Steering Committee and through the feedback provided by the focus groups.

Differentiating Between the Modest but Adequate and Low Cost Standards

Having described the broad meaning of the modest but adequate and low cost standards, some comment is now required on how the two were distinguished in practice during their development.

The modest but adequate standards were taken as the starting point, with the low cost standards generally being derived by modifying them in various ways. For the great majority of items which were legitimate to include in both budgets, these low cost modifications took a number of different forms, including costing some items using lower prices, incorporating lower quality products or fewer of them, or by extending the lifetimes of items.

There are limits to how far one can go in these directions, however, and the choices made are not independent of each other. For example, several focus groups and BSU Steering Committee members commented that it was inconsistent to include both cheaper items in the low cost budgets and at the same time assign a longer lifetime to them. General experience suggests that the *cheaper* the item the *shorter* its useable lifetime and the budget standards must somehow recognise this.

A related aspect of this issue concerns the possibility of reducing the cost of achieving a given standard through bulk purchasing of some items. Although such opportunities exist, in practice those whose resources are limited are generally least able to take advantage of them. Mainly for this reason, the standards do not include any allowance for bulk purchasing of items. Another reason for excluding bulk purchase (as well as other one-off savings arising from special deals) is that this makes the budgets less easy to replicate—a factor whose importance has been discussed earlier.

The other main way in which the low cost budgets differ from the modest but adequate budgets is that some items were excluded altogether. This was an area where there is considerable potential for building in arbitrary decisions. In order to minimise the scope for such arbitrariness in the developed standards, the procedure adopted was to specify a series of 'rules of thumb' that were simple and explicit and apply these whenever decisions between alternative options had to be made.

Rules of Thumb

The use of rules of thumb to assist in developing budget standards has the advantage that they can minimise the scope for making arbitrary decisions concerning the detail of what to include in the budgets and on what basis. If such decisions are made separately in each budget area, they run the risk of becoming unable to be replicated, and also of building in cross-budget inconsistencies that can quickly multiply.⁸

These kinds of complexities need to be handled in a way that maintains both clarity of purpose and consistency of approach. One way of facilitating this is to develop a series of rules of thumb that can be easily identified and applied to each component budget. This approach also facilitates a better discussion of the appropriateness of the rules by those responsible for

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Decisions made, for example, concerning whether the household has an annual vacation and of what kind, have important implications for the food budget (self-catering holiday or not?) as well as for the transport budget (Does the household have a car to get to their destination and has the fuel budget been adjusted appropriately?).

actually developing the budgets. For these reasons, a number of rules of thumb were developed and have been used to construct the budget standards.

As will become apparent, the difficulties surrounding the inherent arbitrariness of the judgements involved in constructing a budget standard cannot always be satisfactorily resolved by the use of rules of thumb. Such rules are not always as precise in their practical application as might be expected, as several examples discussed later will illustrate. Furthermore, it has to be recognised that even the decision over when to apply a rule of thumb is itself a rule of thumb!

Rules of thumb are imperfect instruments that have their weaknesses but these appear less serious than alternative approaches that are feasible given the limitations of the existing data and other informational constraints.

Ownership Rules

Ownership rules are one example where a simple rule of thumb was used to develop the BSU budget standards and for differentiating between the modest but adequate and low cost standards. The use of ownership rules was motivated by the same considerations as applied in the UK budget standards research and their application was also virtually identical.

It has already been noted that the legitimacy of budget standards depends in part on the extent to which they reflect current aspirations, values and patterns of community behaviour. Given that the modest but adequate standard is assumed to approximate the median standard of living in the community, it seems reasonable to include in the budgets at that standard those items and activities which are enjoyed by a majority of the population. A '50 per cent rule' was thus introduced, under which only those items (or activities) owned (or undertaken) by at least half of the population were incorporated into the modest but adequate budgets.

Having established the 50 per cent rule for determining which items to include in the modest but adequate budgets, a 75 per cent rule was used to achieve the same result in relation to the low cost budgets. This again replicated what was done in the UK, where Yu (1993) used a 75 per cent ownership rule to construct the low cost budgets. Adoption of the 75 per cent rule is again arbitrary, although other attempts to define what can be regarded as 'necessities' for inclusion in minimally adequate budgets have foundered when put into practice.

The most notable of these is the 'S-curve method' whose potential use in developing budget standards has been described by the Watts Committee referred to earlier. The S-curve method attempts to identify the income level at which households change from simply purchasing more of a given item to purchasing a higher quality of that item or to buying another, less essential item. If consumers acted in this way, then a plot of their income against the quantity of the item purchased would initially rise rapidly but then begin to rise more slowly.

The point at which the rate of increase started to fall off the inflection point on a graph of income against the quantity bought would then represent the point at which quality began to be substituted for quantity, indicating that at this level, the amount of that particular good was sufficient to meet the basic needs of the household.

Identifying these inflection points on the estimated S-curve for each good could then be used to determine how much of each of them was associated with a given level of living of the household and thus how much to include in a budget designed to correspond to a specific standard.

Unfortunately, there are several practical difficulties which prevent the S-curve method from being used to inform the development of a budget standard. Not the least of these is the fact that data on the *quantities* of most items purchased by households are not available, only information on their *expenditures*. Unless separate information is available on the *prices* required to translate expenditure into quantities, all that can be done is to assume that quantities and expenditures are proportional—an assumption which contravenes the basic premise of the method itself.

The significance of these difficulties has been borne out by the generally poor results obtained by those who have tried to apply the S-curve method using data for both the US (Watts, 1980) and the UK (Bradshaw, Mitchell and Morgan, 1987).

On the basis of its attempt to apply the method, the Watts Committee concluded that:

'...neither the results of applying the...procedure nor the internal consistency of the approach indicate that it is an appropriate method for establishing the priorities of consumers themselves or for identifying any other consensus about what constitutes a particular norm or level of living...[instead]...the makers of the Family Budgets were forced to use a variety of different estimation techniques—expert, statistical, judgemental—for constructing the budgets.' (Watts, 1980, p. 34)

In light of such problems, there is little choice but to resort to rules of thumb which have the advantage that they are transparent and relatively easy to vary.

Exceptions were made to the 50/75 per cent rule on normative grounds in some instances, in order to ensure that the budget standards do not simply reflect existing patterns of inequality in society. Examples include the decisions to include a motor vehicle in the budgets of all female sole parent households and to over-ride a strict application of the 50/75 per cent rule in deriving much of the personal care budget.

Determining what form such ownership rules should take is only the first step in using them to develop budget standards. Several other issues are also important. The first of these is purely practical and concerns the fact that rather little information is available in Australia on ownership rates on which to base decisions. The research has used what data was available, but has also endeavoured to use as few data sets as possible so as to maximise the consistency within the budgets as a whole.

The specific data sources used are described later, although much of the data has been derived from information collected and released by the Australian Bureau of Statistics. Another very useful source of data that has been used extensively is the Australian Standard of Living Study (ASLS) conducted by the Australian Institute of Family Studies (AIFS), which contains a great deal of ownership information, even though the scope of the ASLS was restricted to families with children which meant that supplementary sources had to be used in developing the budget standards for households without children.⁹

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Representatives of both ABS and AIFS participated in the study as members of the BSU Steering Committee and provided assistance with the use of the relevant data.

Aside from practical issues in applying the ownership rules, another very important issue concerns the level at which the rule should be applied. In relation to the ownership of consumer durables and other consumption items, the application of an ownership rule is (in principle at least) relatively straightforward. Because, as explained in more detail below, the unit of analysis adopted in developing the budget standards is the household, the ownership rules have generally been applied at the level of the household.¹⁰

This would in fact be appropriate even if the individual had been chosen as the unit of analysis because most consumer durables are owned by the household so that ownership can only be meaningfully applied at this level. Thus it is possible to determine how many households own a television set, and how many own two or three or even more sets, but it is generally not possible to determine how many *individuals* own a television, nor does it generally make sense to pose such a question.

The essential point with most consumer durables, as explained some time ago by Manning (1984), is that they are generally purchased not on an individual basis but in similar amounts per household. Manning distinguished between *capitation goods* for which expenditures are made on an individual basis, and *flagfall goods* which are purchased predominantly on a household-basis. This is an interesting classification of consumer items because it highlights the fact that many consumer durables play an important role in the determination of economies of scale in household consumption (see below).

Thus, spending on flagfall goods rises less than proportionately with household size because most consumer durables can be consumed jointly within the household—two or three people, for example, can watch a single television set at the same time or benefit from the services of a single washing machine. In contrast, capitation goods such as food, clothing and footwear, household supplies and medical services are essentially consumed on an individual basis and the scope for achieving economies of scale within the household is much reduced.

Manning's analysis explains why it is appropriate to determine ownership rules for consumer durables at the household level. The approach is straightforward and creates few problems, even where there may be multiple ownership of the same commodity within a single household. In such cases, application of the rule would assign two television sets, for example, if more than 50 per cent of households have two sets.

The problems with ownership rules begin to arise when consideration is given to the data that can be used to establish existing levels of ownership. The first such problem relates to the level of aggregation for which the actual ownership rates are derived. Older households, for example, are less likely than younger households to own some of the newer consumer durables that have resulted from recent advances in technology. The ownership of such things as fax machines, dishwashers and home computers has a strong generational dimension and the issue arises of which is the appropriate group on which to base the current level of ownership: all households, or only younger households, to take but one example.

Where there is good reason for separating out different household types, the research has determined ownership rates (where this is feasible given the available data) separately for each

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The main exception is in the health care budget, where the rules were applied to individuals not to households; see Chapter 8 for further details.

household type. Two examples will illustrate why this is sometimes a preferable approach, though not always.

First, it makes a good deal of sense to distinguish between households with and without children when deciding the ownership level of video machines or home computers. Although there may be fewer than 50 per cent of all households who own a home computer, more than half of households with children do, so that a home computer should be allocated to those with children but not to other households. The alternative of applying the rule at the aggregate level would deny to households with children items such as home computers that are now commonplace for this group.

However, a second example shows that the use of an aggregate approach when applying the ownership rule can also be justified in some circumstances. Consider a comparison of the ownership of consumer durables between couples with children and sole parent households. The levels of ownership of many items designed to meet the educational and recreational needs of children are lower in sole parent households.

However, this mainly reflects the fact that most sole parent households have a lower standard of living than couples and if this pattern of ownership was built into the budget standards they would lose their normative content by reflecting existing resource constraints and inequalities. In this second case, therefore, there is a strong case for not disaggregating *within* households with children, even though the first example shows why it makes sense to separate *between* households with and without children.

The situation is different again when it comes to the other main areas where ownership rules have been used to determine what to incorporate when developing a budget standard. These areas cover the use of certain services (e.g. health services) and participation in various activities (e.g. attendance at sporting or cultural events, or engagement in sport or leisure activities).

Again, the 50/75 per cent rules described earlier have been used to inform decisions regarding which activities to include in the budgets, and these have primarily been applied at the individual level. Thus, for example, development of the health care budget has utilised information of the frequency with which people of different ages and gender actually use different health care facilities over the course of a year.

This approach can be justified (even accepting that the underlying assumption of the health budget is that it applies to 'healthy individuals'—see Chapter 8) because even those who enjoy good health on average sometimes have to use health services for occasional periods of sickness. In this case, utilisation rates of each of the main medical and hospital services have been used to see which (if any) of them exceed the 50 per cent rule.

This analysis has, however, been conducted for individuals and thus ignores the fact that although the likelihood of *any one individual in a household of several people* could exceed 50 per cent the separate figures for each person may fall short of the 50 per cent utilisation threshold. An alternative approach would involve applying the 50 per cent service usage rule to the household as a whole rather than separately to each individual within it.

¹¹ Several members of the BSU Steering Committee were of the view that the ownership rules should be applied at the household, rather than the individual level, particularly in developing the health budget. Despite this, the majority favoured using the individual as the basis for applying the rule.

Although there is merit in adopting the individual approach, a problem arises in deciding which person (or persons) within the household should use which particular service (or services) once it has been established that the 50 per cent rule has been exceeded at the household level. In general, the ownership rule has been applied at the individual level and where the 50 per cent rule is exceeded, that individual is assumed to utilise the service which is most commonly used in aggregate for people of that age and gender profile. This approach has the advantage of transparency and is often all that can practically be done given the available data.

The same broad approach has been used to decide whether to include various categories of leisure activity in the household budgets. Thus, for example, in deciding whether attendance at sporting or cultural events should be incorporated into the budget standards, data on the proportions of the population in each age and gender group who attended *any* sporting or cultural events were analysed to see whether the 50 per cent rule was exceeded.

If it was, individuals with the relevant age and gender characteristics were then assigned the appropriate number of visits to the *most popular event* within the broad categories of sport and culture. This approach may again lead to some underestimation of this element of the budgets in the case of larger households.

One final aspect of the ownership rule methodology concerns another dimension of the level of aggregation at which the rule is applied. It can be argued that application of an ownership rule separately to each commodity or activity induces an upward bias in the resulting standards because no allowance is made for the fact that, in practice, households actually substitute between the available alternatives according to their tastes and preferences.

The potential impact of substitution can best be illustrated with the help of an example. Imagine a society in which 20 per cent of households are rich enough to buy all that they need, with the remaining 80 per cent modestly well-off but who have to make choices in deciding which goods to buy to satisfy their needs. When it comes to purchases that satisfy home entertainment needs, the 80 per cent split equally between those who buy a video recorder and those who buy a stereo system (assumed to be substitutes for the purpose of the argument). The rich households can afford to buy both, and do so. This means that 60 per cent of the population own a video player and 60 per cent own a stereo system.

The 50 per cent ownership rule would thus allocate *both* a video player and a stereo system to *all* households, whereas in fact these two items are in effect substitutes for the majority of the population who have one or other of them, but not both.

These considerations raise a broader and more fundamental issue of whether or not a budget standard should allow for substitution between commodities and activities and, if so, what impact this would have. In practical terms, all households manage their budgets by substituting between goods so as to maximise the level of well-being that they can support from within the resources available to them.

No two households will purchase exactly the same items, even though they may have identical incomes and enjoy the same standard of living. Instead, incomes will be spent on those items that best satisfy the tastes of each household. However, the fact that substitution between goods is a reality does not alter the fact that this is of only limited relevance for a budget standard which is developed from normative criteria that are independent of the constraints and preferences of *individual* households.

Having said this, it should be acknowledged that a certain amount of substitutability between goods has been incorporated into the budget standards, mainly to avoid the enormous complexity that would result if all possible combinations of items were allowed for. However, such substitutability has been incorporated only *within* the main component budget areas, and has been further restricted to commodities that are substitutes in the narrower economic sense that they satisfy the same needs.

Thus, for example, the food budget makes allowance for people to choose between (or substitute) soy sauce and tomato sauce, or between potatoes, rice or pasta which satisfy the same dietary purposes. Similarly, the leisure budget allows for substitution between some activities (e.g. attending alternative sporting events) but not others (e.g. between going to the theatre or other cultural occasions and attending sporting events).

The main point to emphasise is, however, that the level at which the budget standards allow substitution is intended not to have a marked impact on the cost associated with the standard itself. Full incorporation of substitutability both within and between the main budget areas would involve abandoning the normative budget standards framework in favour of the conventional positivist neoclassical economic analysis of consumer behaviour which allows for complete flexibility of choices within available constraints.

2.4 Operational Issues of Research Design

The Household as the Unit of Analysis

In principle, there is nothing to prevent budget standards being developed for each and every type of household that exists in any society at a particular point in time. There are two main obstacles to doing so: cost and practicality. Although the cost involved is high enough to limit the number of budget standards that are developed, this is reinforced by important practical considerations relating to the fact that as more and more households are included, the likelihood of the relevant data being available diminishes.

In addition, as the number of household types multiplies, it becomes increasingly difficult to identify the appropriate social norms to be reflected in the budgets. In the limit, the more the disaggregation process continues, the more likely it is that budget standards will simply replicate existing patterns of observed household behaviour.

In light of these considerations, the number of household types should be restricted to the purposes for which the budget standards are being developed. Clearly, it is important to include those households that are most commonly found in the population at large: single people, couples with and without children and sole parent families. But once the age of individual household members is allowed to vary, along with other defining characteristics like labour force status, ethnicity, class and gender, the number of possible combinations increases exponentially.

For these reasons, most overseas studies have developed budget standards for only a relatively small number of the most representative households. The UK standards developed by the Family Budget Unit, for example, were originally restricted to six family types: a single man; a single woman; a couple; couples with two children of different ages; and a sole parent with two children—with the ages of each individual in each family fixed at pre-determined levels (Bradshaw, 1993a, p. 5).

Once a budget standard has been developed for each of the basic household types, it is relatively easy to extend the range of households. In general, it is easier to modify an existing budget standard to allow for variations in household circumstance than it is to develop the standard in the first place.

At this stage it is worth noting that the budgets derived below apply only to households containing a single nuclear family income unit. In other words, the household types cover only families consisting of a single person (or two people living as a couple), with or without dependent children. Because of this, the households can equally well be described as 'families' as this is what they are, although they include only a rather restricted range of family types who are living by themselves. ~

The household types included in the study were determined by the shape of the Project Brief (see Appendix 2.A) and by current policy requirements and priorities. The intention was to develop a set of budget standards that could be used to explore the following issues:

- the extent of economies of scale for households with varying numbers of adults and children;
- the effect of age on the costs of adults;
- the impact of age, gender and position in the household on the cost of children;
- the costs of sole parenthood;
- the costs of employment and job search;
- the impact of shared residential arrangements on the costs of children;
- the costs of disability;
- the sensitivity of budget standards to geographic location; and
- the applicability of budget standards in establishing the costs of children in high income families.

In order to be able to shed light on each of these issues, budget standards must be developed for a range of different households structured so that the costs identified above can be derived by comparing the budgets for different households.

Thus, for example, the degree of economies of scale in household size can be investigated by considering how the budget standards vary as household size is increased from one (a single person) to two (a couple) to three (a couple with one child) to four (a couple with two children), and so on—although it also needs to be recognised that the life-styles and patterns of behaviour of these different households make it very difficult to be confident that the comparisons between them hold the standard of living constant.

The effects of age and gender on the budgets can also be explored by comparing them across households that differ only in the age and gender of the individuals within them. The costs of employment and job search can be derived from comparing the budgets of similar households whose adult members have a different labour force status.

In general, the approach that is employed to estimate these dimensions of cost can be referred to as the *incremental cost* or *derivative budget* method, under which the budget standards corresponding to different household circumstances are compared in order to estimate the costs associated with the differences in those circumstances. Such comparisons need to be qualified, not only in light of the difficulty (noted above) of being sure that the standard of living of the different households that enter into the calculation are the same, but also because the calculations themselves are limited by the original budgets from which they are derived.

To illustrate these limitations, consider the case where the costs of a second child in a household are estimated as the difference the budget standards for a household with two children and a household with one child. Not only does such a cost estimate depend upon the assumed ages of the adults in the household and the age (and gender) of the second child itself, it also depends upon the age (and possibly also the gender) of the first child. And of course, the estimate also depends upon the fact that the child itself is the *second child* in the household.

The estimated cost of this child thus depends upon several specific features of the household circumstances from which it was derived. Any change in these, *even if the circumstances (age, gender, etc.) of the child itself are unchanged* will affect the estimate of the cost of the child—at times by a considerable amount. One crucial element in this context is associated with whether or not the addition of a second child to the household requires an increase in the number of bedrooms—a possibility which in turn depends upon the age and gender combination of the two children, as well as on the housing occupancy standards from which the budget standard itself is derived.

This example illustrates the general point that the cost estimates derived from a range of budget standards are often severely constrained by the household characteristics from which the original budget standards were derived. This can restrict the ability to generalise from such incremental cost estimates, an issue which will be explored in more detail in Chapter 14.

Some of the incremental costs included in the above list of specific issues have been answered, not by comparing budgets standards across different households, but by obtaining focus group feedback on the relevance of the budget standards derived for a specific type of household to the circumstances of households with special needs. The special needs addressed in this context include the costs associated with a family member who has a disability, the costs associated with large numbers of children, the variation in the cost of attaining a *given* standard according to geographic location and the costs of maintaining access to children for non-custodial parents.

The use of focus groups to provide an estimate of costs in these circumstances can do no more than provide an initial indication (based on feedback received from a small number of focus group participants) of the relevance of an existing budget standard to the circumstances of those with special needs of one form or another. The aim of the focus groups is no more than to identify those areas where the existing standards are sufficient and those areas where modification is required.

To expect to be able to go beyond this to identify the likely *extent* of any such modification is to ask more of a single focus group discussion than it can possibly bear. These comments need to be kept in mind when reviewing the outcome of the focus group discussions that are reported in Chapter 13.

Thus far, the discussion has been premised on the assumption that the unit of analysis for which the budget standards are being developed is the household. An alternative approach would be to develop budgets separately for each *individual* (in effect using an individual unit of analysis) and then to aggregate up to form budgets at the household level.

In principle, this method has the advantage that it becomes possible to construct budgets for a large range of different households by combining individuals together to form households in different combinations. The obvious attraction of basing household budgets on an individual unit of analysis lead to those responsible for developing the standard budgets for Denmark to adopt the individual as the basic unit.

The main limitation of using the individual as the unit of analysis lies in the fact that where there are more than one individuals living in the same household, account must be taken of joint consumption of many items. This effective sharing of consumption within the household is one reason why economies of scale exist; two people can watch the same television set as one person and gain the same enjoyment from so doing—as indeed can three, or four or five, or more individuals. This implies that even if the individual is selected as the unit of analysis, the budgets themselves must still be tailored in some way to fit the household circumstances within which individuals reside.

This is explained in the English summary of the Danish budget standards which describes their methods as follows;

'...in practice a procedure was followed in which the specific individual consumption is found for children and men and women in different age groups, and the joint consumption is based on the number of adults and children. Both the individual consumption per individual and the joint consumption depend, however, to a great extent on the actual type of household. In the selection of actual activities the actual type of households to which the individuals (adults and children) belong are taken into consideration when determining the consumption.'(Center for Alterativ Samfundsanalyse, 1993, p. 65)

Thus one cannot avoid the need to take account of how the *household* as a whole functions, even if the unit of analysis is the *individual*.

This in itself does not mitigate against the use of the individual as the unit of analysis, although it does complicate things considerably. Even so, there is a good precedent for using an individually-based structure, as that is what is done in effect in the Henderson poverty line framework in its separation of 'personal costs' from 'household costs' in the derivation of the Henderson equivalence scale (Commission of Inquiry into Poverty, 1975).

However, mainly because of the complexities of using the individual as the unit of analysis in developing a budget standard, supported by the greater difficulty of explaining a method under which the costs of a *given* individual vary according to the circumstances of the household in which they live, the decision was taken to use the household as the unit of analysis.

Even within the framework of a household unit, some of the components of the budget standards have been developed for individuals and then aggregated up to form household budgets. This has occurred mainly in those components of the budget where there is no sharing among household members, so that the items and their associated costs can be unambiguously ascribed to specific individuals.

The individual unit approach has been used to develop the food, personal care and doming and footwear budgets and much of the health care budget, although there are some items included here that apply to the household as a whole (e.g. the first-aid kit). In each of these four areas, the budgets have predominantly been developed for individuals, and these have then been combined to form the household budgets.¹³

This means that no allowance has been made in the budgets for any sharing that may take place within the household (e.g. more than one person using the same article of clothing at different times), on the grounds that these instances are likely to be relatively rare in practice and are in any case likely to have only a minor impact on the budgets.

A more significant implication of using the individual as the unit when developing the budgets is that there is by definition no scope to allow for economies of scale at the household level, because the possibilities for joint consumption are denied when the individual unit is adopted.¹

However, joint consumption within the household is only one of the reasons for the existence of economies of scale. A second factor leading to economies of scale concerns the possibility of benefiting from bulk purchasing of commodities which lowers their unit price. Although it is in principle possible to build an element of this into some of the component budgets, (particularly into the food budget where there is some evidence that unit prices do vary according to the size of the package), this has not been done at this stage.

It is important to emphasise at this stage that the fact that no allowance has been made for economies of scale in the four areas of the budget listed above does not mean that there are no such economies in the *overall* budget standards. Such scale economies can (and do) arise in many of the other budget areas, each of which allows explicitly for varying degrees of shared consumption and/or various forms of bulk purchasing within the household.

Three of the remaining component budgets (housing, household goods and services, and energy) are developed at the household level and even though each of them takes account of the size and composition of the household, they each still exhibit considerable economies of scale. The remaining two budget areas (transport and leisure) adopt a more mixed approach, in which the household is the basic unit, but the needs of the household are derived by summing the requirements of each individual within it.

The fact that economies of scale only enter into the household budgets through certain of the items in them means that caution should be applied when disaggregating the budgets into their

¹³ The fact that both the food and clothing and footwear budgets were developed at the individual level explains why Lovering's research on the costs of children included only these two dimensions (Lovering, 1984).

¹⁴ The failure to adequately take account of economies of scale is one of the major limitations of a poverty line derived by applying a food budget multiplier to an estimated food budget derived for individuals.

component parts. (Reference has already been made to the limitations of placing too much emphasis on food budgets which do not incorporate an allowance for economies of scale.)

To summarise, the overall approach adopted in developing the BSU budget standards has been to regard economies of scale as relevant only to the household budgets as a whole, not to each separate component of them. This is a sound approach, though not the only one that could have been taken. It would have been possible to build economies of scale into each major budget area, but this would have added to the complexity of the task and to its data requirements.

Normative and Behavioural Inputs

As noted earlier, although the development of a budget standard begins from normative judgements about needs that are informed by the relevant experts, for budget standards to have contemporary cultural and social relevance and for them to have a degree of legitimacy in the community, they must also be informed by existing values and patterns of behaviour.

It follows that unless the norms are modified to reflect current patterns of behaviour, budget standards risk becoming isolated from current practice and unrelated and thus irrelevant to real circumstances. It is possible, for example, to consume a diet that meets the existing nutritional requirements consisting mainly of brown rice, lentils, cereals and little else. But very few Australian diets conform to this pattern and it would make little sense to derive a food budget from such a diet if it is to have relevance to eating preferences and practices in the community.

For this reason, the food budget described in Chapter 5 is derived from a range of diets that are informed by the actual food tastes of Australian households whilst at the same time conforming to the normative standards of nutritional adequacy. In a similar fashion, the housing budget begins by specifying the housing occupancy needs of a household of a given size and composition, but then modifies this to accord with the realities of the supply-side of the Australian housing market.

In developing the health care budget, the starting point has been that all individuals in the household enjoy 'good health', yet the standard also recognises that even people who are in good health need to access and utilise health services from time to time, so that some account must be taken of this and of the associated costs.

Across all of the main budget areas, the process of modifying the budgets to conform to Australian conditions involves varying their normative components to reflect existing patterns of behaviour.¹⁵ In the limit, if taken to the extreme, this process could result in the budgets becoming completely descriptive or behavioural and losing their normative content completely. Were this to occur, any claim that the standards reflect expert norms would be lost, as would

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Although this discussion of the role of behavioural factors is limited to those which impact upon the quantities of different commodities included in the budget standards, it also needs to be recognised that patterns of community behaviour are also likely to exert an influence on the *prices* at which the budget amounts are costed. However, attempting to estimate how much of the observed price reflects a market reaction to existing patterns of behaviour and how much is independent of such behaviour is a formidable task, well beyond the scope of this project.

be the role of budget standards as an *independent* basis for helping to determine what level of income is adequate to achieve a certain standard or to benchmark living standards generally.

The task of modifying the normative standards in the light of behavioural factors without undermining the entire basis for developing budget standards is thus extremely difficult and must be undertaken with considerable care. All that can reasonably be done is to be explicit about what the underlying norms are and indicate where these have been modified by behavioural factors (and why), and where they have not. Once these decisions have been made explicit in this way, they can provide a framework for debating the judgements that are included in the standards and a means of varying them if that is warranted.

In fact, in most of the component budget areas, there are no clearly articulated and endorsed norms from which to begin to develop a budget standard. This is not always the case, however, and wherever expert standards do exist, these have been used to develop the budgets in the relevant areas.

Such norms have influenced the development of the housing, food and health budgets and enter into the development of the other budget components at various places (e.g. in relation to the standards of child care, sun protection creams, clothing items, private motor vehicles, the use of child restraints in cars, and so on). In general, however, many of the remaining component budgets are almost entirely behavioural.

It is thus possible to locate the component budgets on a continuous spectrum that begins at one end with those that are heavily normatively based, stretching to the other extreme which is virtually entirely behavioural.

On such a continuum, the food budget would fall furthest to the normative end, with the health budget close to it, followed by the housing budget. At the other extreme lies the energy budget, that has been derived virtually entirely from behavioural data. Slightly less behavioural are the transport and leisure budgets, both of which are heavily behavioural, even though also containing some normative aspects (in relation to the need for regular exercise, or the number and distance of private trips made, for example).

The remaining three budgets (clothing and footwear, household goods and services and personal care) lie slightly further to the normative end of the spectrum—somewhat more normatively informed than the leisure budget, but still heavily based on behavioural considerations.

When aligned in this way, the fact that several of the budgets lie towards the behavioural end of the spectrum reflects the fact that there are relatively few normative standards that can be used in budget standards in many areas of consumption. However, this is no more the case in Australia than it is in other countries where budget standards have been developed.

Those who have developed budget standards do not claim that they are entirely normative, only that they are informed by whatever norms exist and modified by expert opinion across a broad range of areas.

There is, however, an important issue that emerges from the fact that the lack of accepted norms implies a greater reliance on behavioural data in the process of developing the budget standards. This relates to the inherent difficulty of ensuring that the level at which the various components that go into the overall standard are set refer to (approximately) the same underlying standard.

One of the most difficult aspects of constructing a budget standard concerns how to ensure that the standards themselves are held constant across the range of different budget components. As explained earlier, this was achieved in the BSU research through the cooperative team effort on which the budgets themselves were based. Constant interaction and discussion between the different researchers provided a framework for establishing some conformity across the various dimensions of the standards as they were developed, and it is difficult to see how this approach, although imperfect, could be practically improved upon.

Selection of Household Types

The selection of household types for which a budget standard was derived was determined so as to include all of the most common household types and with consideration given to how these could be used to derive the various cost estimates described earlier. The initial list of households consisted of the following 12 basic household types, three of which differed only in the assumed ages of the child, and a further two of which differed only by the assumed age(s) of the adults:

- single person households (above and below pension age);
- couple only households (above and below pension age);
- couple households with one child (of varying ages);
- couple households with two, three and four children; and
- sole parent households with one and two children.

Allowance was also made for variations in labour force status of each parent in the case of the couple households with one child which added to the list. A budget standard was developed for each household at both the modest but adequate and low cost levels, resulting in a further doubling of the task.

Additional complications were added to this basic structure to reflect two further considerations. The first of these related to the assumed housing tenure of each household. A number of different housing tenure assumptions were required for some household types, in order that the relationship between housing tenure and some of the other budget dimensions could be more readily compared. The second variation reflected the need to ensure that the labour force status assigned to households at the low cost standard were consistent with the realities of the Australian labour market and with existing research and policy priorities and interests.

The resulting full list of household types is shown in Table 2. 1, which shows, for each of the 12 basic household types described above the labour force status and housing tenure combinations assigned at the modest but adequate and low cost standards. The labour force status assignments were selected to be consistent with the circumstances of households at the modest but adequate and low cost standards, while the housing tenure choices were designed to reflect the broad circumstances of actual households at each of the two standards.

Overall, Table 2. 1 indicates that a total of 26 different combinations of household type, labour force status and housing tenure apply at the modest but adequate standard. At the low cost standard, the total number of combinations is only 20, reflecting the fewer number of housing

Table 2.1 List of BSU Household Types

	Modest but Adequate				Low Cost		
	Employment	Tenure	House Type	Employment	Tenure	House Type	
H1: Single female — 35 years	employed full-time	Private Renter Purchaser	1 bedroom unit 2 bed unit	unemployed	Private Renter	1 bedroom unit	
H2: Couple — male 40 years, female 35 years	both employed full-time	Purchasers Private Renter	2 bed pre-war bungalow 1 bedroom unit	both unemployed	Private Renter	1 bedroom unit	
H ₃ : Couple — male 40 years, female 35 years, girl 6 years, boy 14 years	both employed full-time	Purchasers Private Renter	3 bed post-war bungalow 3 bedroom unit	male unemployed, female not in labour force	Private Renter	3 bedroom unit	
H4: Single female — 35 years, girl 6 years	employed full-time	Purchaser Private Renter	2 bed pre-war bungalow 2 bedroom unit	not in labour force	Private Renter Public Renter	2 bed unit 2 bedroom walk up	
H ₅ : Aged female — 70 years	retired from labour force	Outright Owner	3 bed post-war bungalow	retired from labour force	Outright Owner Public Renter	3 bed pre-war bungalow pensioner housing	
H6: Aged couple—both 70 years	both retired from labour force	Outright Owner	3 bed post-war bungalow	both retired from labour force	Outright Owner Public Renter	3 bed pre-war bungalow pensioner housing	
H ₇ : Couple—male 40 years, female 35 years, girl 6 years	both employed full-time	Purchasers Private Renter	3 bed post-war bungalow 2 bedroom unit	male unemployed, female not in labour force	Private Renter	2 bedroom unit	
H ₇₁ : As above	n/a	n/a	n/a	both unemployed	Private Renter Public Renter	2 bedroom unit 2 bedroom unit	
H ₇₂ : As above	male employed full-time, female not in labour force	Purchasers Private Renter	3 bed post-war bungalow 2 bedroom unit	male employed full-time, female not in labour force	Private Renter	2 bedroom unit	
H ₇₃ : As above	n/a	n/a	n/a	male employed full-time, female unemployed	Private Renter	2 bedroom unit	
H ₇₄ : As above	male employed full-time, female employed part-time	Purchasers Private Renter	3 bed post-war bungalow 2 bedroom unit	n/a	n/a	n/a	
H8: Couple — male 40 years, female 35 years, boy 14 years	both employed full-time	Purchasers Private Renter	3 bed post-war bungalow 2 bedroom unit	male unemployed, female not in labour force	Private Renter	2 bedroom unit	
H ₉ : Couple—male 40 years, female 35 years, girl 3 years	both employed full-time	Purchasers Private Renter	3 bed post-war bungalow 2 bedroom unit	male unemployed, female not in labour force	Private Renter	2 bed room unit	
H10: Couple — male 40 years, female 35 years, girls 3 and 6 years, boy 14 years.	both employed full-time	Purchasers Private Renter	3 bed post-war bungalow 3 bedroom unit	male unemployed, female not in labour force	Private renter	3 bedroom unit	
H11: Couple — male 40 years, female 35 years, girls 3 and 6 years, boys 10 and 14 years.	Both employed full-time	Purchasers Private Renter	3 bed post-war bungalow 3 bedroom unit	male unemployed, female not in labour force	Private renter	3 bedroom unit	
H ₁₂ : Single female — 35 years, girl 6 years, boy 10 years	employed full-time	Purchasers Private Renter	3 bed pre-war bungalow 3 bedroom unit	not in labour force	Private Renter Public Renter	3 bedroom unit 3 bedroom unit	

tenure combinations considered relevant at this level. Thus, there are a total of 46 different household types for which a budget standard has been developed at either one or both of the modest but adequate and low cost standards.

The characteristics of the household types shown in Table 2.1 were determined so as to maximise the value of the resulting budget standards for two specific purposes. The first is to provide a benchmark against which the *absolute level* of household incomes can be compared to the living standards that are reflected in each of the budget standards.

Assessing the adequacy of social security payments by comparing benefit levels with the low cost budget standards is part of this, but establishing what the modest but adequate standards imply for the living standards of those households with incomes closer to the middle of the Australian income distribution (where wage levels and the structure of tax rates and tax concessions become important) is also important in shedding light on how well 'middle Australia' is doing. All such comparisons do, of course, need to be qualified by the many assumptions on which the budget standards have been based, as well as the limitations that apply to them.

Rather than deciding unambiguously that a particular level of income is or is not adequate on the basis of budget standard comparisons, a better strategy involves looking in greater detail at what the relevant budget standard implies in terms of the satisfaction of consumption needs, and using this as the basis for informing assessments of income adequacy. In this way, the normative judgements and other factors that affect the final budget standard provide a framework for better understanding of the various dimensions of adequacy and for exploring its meaning in more detail.

The main point to emphasise is that comparing the budget standards with the absolute levels of income received by different households in the community is only one—albeit an important—way of assessing the adequacy of the incomes of different households.

There is a second type of comparison that can be made from the estimates in Table 2.1 which can contribute to a better understanding of the *relative* adequacy of the incomes of households of differing size and composition. Bearing in mind that the aim of budget standards research is to develop the *same* underlying standard for *different* households, it follows that, to the extent that this ideal is achieved in practice, the standards can be compared across household types to derive estimates of how needs, budgets and costs vary with variation in household circumstances *at a given standard of living*.

This issue is taken up in more detail later, specifically in Chapter 14.

Pricing Issues

The above discussion has focused exclusively on the problems associated with the determination of the appropriate *quantities* to include in the household budgets. Attention now focuses on the question of how these items are *priced* once they have been identified.

Since the purpose of developing a budget standard is to obtain a representation of a given standard of living in terms of its material constituents and then estimate how much income is required to purchase them, the prices used to develop budget standards should reflect what consumers actually have to pay to obtain each item. Given that the budget itself is the product of the quantity and price of each item, obtaining the right price information is as important as determining the quantities themselves.

Budgets have to be priced at a given date. No single date can ever be entirely representative of the year as a whole, although there are some obvious dates (e.g. Christmas or immediately afterwards) that should be avoided. The date chosen to price the BSU budgets was determined mainly by the need to avoid such unrepresentative periods and was restricted by the progress made in developing the budget quantities. The final pricing date selected was February 1997.

In practice, the process of pricing a budget standard runs into the problem that there is no single 'price' that corresponds to a particular good or service purchased at a given date. It is well known that 'shopping around' can lead to considerable savings on most items, as those retail stores who promise to match their competitor's lower prices know only too well. These differences in 'shelf prices' exist not only within what might be regarded as a single retail market (e.g. a capital city or a particular suburb within it) but also between different market areas (e.g. in the different prices faced by urban and rural consumers, for example).

In addition, the prices of many of the items that enter into the household budgets vary over time, often because of seasonal factors. This is certainly the case for many food items, but is also true of clothing and other commodities. In some areas, it is possible to allow for seasonal movements in prices by estimating a budget that applies on average over the course of an entire year. This approach has been used to develop the energy budget described in Chapter 4.

In other areas, clothing and footwear being the best example, the problem has been that each household must be able to meet its clothing needs across all seasons of the year, but when the budget is priced at one particular point in the year, some clothes will be 'out of season' at the point at which they are priced and pricing them accurately is thus somewhat harder—though not impossible.

In relation to seasonal movements in food prices, the approach adopted has been to base the food budget on those items which were 'in season' at the time the budget was priced, this being the only practical option. However, items of fresh food whose price was known at the point of pricing to be unrepresentative because of seasonal price variations were excluded from the budgets in favour of items where such variation was less of a problem. It was possible to do this while still achieving the dietary norms because a variety of actual diets were consistent with the norms.

A further problem that arises in relation to food prices concerns the fact that some food prices vary according to geographic location as well as seasonally. In an attempt to minimise the impact of such geographical variation, much of the food budget was priced using information on average food prices for New South Wales that was provided by AC Nielsen, although fruit and vegetables were priced in Woolworths stores in Sydney.

A more general pricing issue that arises relates to the question of the allowance made for 'specials' and the treatment of sale prices generally. Most of the major Australian retailers hold regular sales and many consumers delay their purchases in order to take advantage of these. The problem that arises if budgets are priced using sale prices is that this reduces the ability to replicate the budgets at some future time.

Rather than use 'specials' and sale prices, it was thus decided to apply a simple rule of thumb to allow for the savings that these produce. The budget where this was considered most of an issue was in clothing and footwear, and as is explained in Chapter 6, an across the board reduction of five per cent in the priced budget was incorporated to allow for sales and specials.

This discussion highlights the fact that using shelf prices to cost budget standards is far more problematic than might at first appear to be the case. The approach adopted must take account of the need to update the budgets to reflect changing prices, as well as changes in the norms and patterns of behaviour on which the budgets are based. This requires the pricing methods and assumptions to be carefully explained and capable of being reasonably readily replicated at other times and/or in other places.

In practice, although somewhat different pricing methods have been used to cost each of the different budget areas, in general the 'shelf price' methodology was adopted wherever possible. In order again to maximise the possibility for others to be able to replicate the budget standards, pricing was done wherever possible at leading Sydney retail stores that exist throughout the city and, where possible, in other parts of the State and other States also. Thus, many of the budget items have been priced at Target, Kmart, Woolworths, Ikea and Freedom Furniture—all of which have a wide geographic spread of retail outlets.

It is also important to emphasise at this point that different retail outlets were used to price some aspects of the modest but adequate and low cost budgets. Where different outlets were selected, this was done after giving consideration to the different specifications of the two standards, described earlier. Those working within the BSU on pricing also kept in continual contact with each other in an attempt to ensure that the prices used reflected the different standards but were consistently applied within each standard.

Further details of the actual pricing methods used in each budget area are explained in later chapters, although it is useful to highlight at this stage the specific difficulties that arose in relation to pricing the housing budget, particularly for those households who were assumed to be purchasing their own home. There are a number of very difficult problems involved in trying to derive house prices (and thus the cost of housing for purchasers) that are in any sense of the word, representative.

Largely for this reason, many overseas budget standards simply omit housing altogether. Rather than adopt this approach, housing has been included as a separate budget item although, as explained later, it has been accorded a different status for those who are purchasers because of the locational variation in house prices.

What is required for budget standards is not the price of the house itself, but rather the cost of purchasing the services associated with home ownership. This brings the cost of housing for purchasers into line with housing costs of renters—at least in principle. The price of a given dwelling depends mainly upon its characteristics (including its size and construction materials) and its location. In developing a budget standard, the size of the house has been specified according to the needs of the household and specific assumptions have been made regarding the physical features of each dwelling.

In relation to the latter determinant of price, it was necessary to choose a particular location in which to develop the housing budget. The location chosen for this purpose was the Hurstville Local Government Area (LGA) in Sydney, some of the main socio-economic characteristics of which are described in Chapter 3. With the assistance of local real estate agents, it was possible to estimate the prices of the kinds of houses included in the household budgets, which were then combined with a number of other assumptions to arrive at an illustrative figure for the size of the currently outstanding mortgage among homebuyers.

The mortgage interest rate prevailing in February 1997 was then applied to this amount to estimate the interest component of the mortgage which was included in the housing budget of

purchaser households. Finally, a matrix of alternative mortgage amounts and interest-rate combinations was developed so as to facilitate the possibility for varying the purchaser housing budgets to reflect interest rate movements and, more importantly to allow for house prices that differ from those existing in the Hurstville LGA.

Although the approach adopted for estimating the direct cost of housing for purchasers is both transparent and reasonably readily varied to account for differences in house prices, the method itself is rather crude and, as a consequence, is not without its limitations. These are discussed in more detail in Chapter 3 which explains how the housing budgets were actually developed.

One of the main limitations of the 'interest cost' approach to developing a housing budget for purchasers described above is that no account is taken of the amount of equity which purchaser households have acquired in their home since they first bought it. This creates interpretational difficulties in practice because it is possible that households can face the same current interest costs but, because their housing equity value is different, cannot be assumed to be at the same standard of living.

This problem can be avoided by adopting a 'rental cost' approach to housing costs for purchasers, where the rental cost is derived by valuing the purchaser's net housing equity at the current market rate of interest. Application of this method would, however, require further assumptions to be made about the current level of net housing equity of each purchasing household which would add considerably to the complexity of the budgets and restrict their general applicability.

Another problem encountered in developing the housing budget for purchasers was that the data on actual house prices was restricted by the nature of the housing market in the Hurstville LGA. In fact, several of the housing types required to conform to the assumed housing occupancy standards simply do not exist (or do so in very small numbers) in the Hurstville area, which meant that it was not possible to obtain a reliable indication of the market price of such houses.¹⁶

Because of these limitations, it is not appropriate to use the housing standards for purchaser households developed and described below for other than broadly illustrative purposes (although comparisons between the housing budgets for different types of purchasers has some validity). Instead, the housing standards developed for private renter households are preferable for use as a benchmark for the housing component of the budget standards and this approach has been taken up in later sections of the report.

In relation to the cost of durable goods, the approach adopted involves assigning an assumed lifetime for each item and then spreading the current purchase price of the item equally over its assumed lifetime. Thus where the household goods and services budget includes, for example, an item of furniture (e.g. a dining table) which has a current (February 1997) market price of \$595, this is allocated over the assumed lifetime (15 years) to derive the average annual cost of \$39.70 or \$0.76 a week.

Clearly, the cost of durable items that appears in the budget standards is sensitive not only to the price of each item, but also to the assumed lifetime. Because the cost is derived as the ratio

¹⁶ This problem is not restricted to the Hurstville LGA, although it would take different forms in other areas.

of price to lifetime, the two factors have exactly the same impact, so that halving of the purchase price of a given durable item is equivalent to doubling its assumed lifetime. This feature meant that in distinguishing between the modest but adequate and low cost standards, on some occasions the price was varied while on others a longer lifetime was assumed in developing the low cost standard.

The approach adopted to derive the assumed lifetimes of each durable item took as its starting point the lifetimes used to develop the UK budgets (many of which built upon the lifetimes assumed when developing the budgets in Sweden and Canada). These were then modified where appropriate to suit Australian circumstances or in light of Australian data which suggested that modification was appropriate.¹⁷ Even so, the sensitivity of the budget standards to the assumed lifetimes and hence annual cost of durables is an issue worth exploring, as is explained in detail later.

The more fundamental question of whether or not it is appropriate to include an estimate of the cost of durable items in a budget standard at all, particularly in a low cost standard that might be regarded as necessary to meet only short-term needs, is an issue that has already been addressed, and is taken up again in Appendix 2.C.

Concessions

Since the budget standards reflect the prices actually faced by consumers purchasing each budget item, they need to take account of any concessions that reduce the prices of some items for certain groups. Furthermore, this ideally needs to be done in such a way that it is possible to assess the impact on the budgets of any changes to the level or structure of the relevant concessions. Where possible, budgets have thus been derived both inclusive and exclusive of any relevant concessions to allow for this.

Those concessions that are related to the consumption of specific items but which take the form of a direct income subsidy are not incorporated into the budget standards. These concessions raise *household incomes* and allow them to purchase more goods, but they do not influence *household budgets* directly. In the case of rent assistance, for example, which is paid as an income supplement to certain categories of social security recipients who are renting privately, the value of the concession does not enter into the determination of the rent paid by these recipients, but is included as part of the income of the household.

The main areas where concessions have an impact on budget standards are housing, health care, transport, energy, and child care. The specific provisions include the setting of public housing rents below market rents, the concessional treatment of local council rates for certain groups of homeowners, pharmaceutical concessions for health care and pensioner concession card holders, child care concessions and public transport concessions for the aged, sole parent pensioners, the unemployed and children.

The precise nature and size of some of these concessions depend upon the level of household income. In these instances, the concessions that were incorporated into the final budgets were determined on an iterative basis (illustrated by the loop shown towards the bottom of Figure 2.1) by summing an initial total budget which did not incorporate the concession and setting

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Where possible the assumed lifetimes of some items were compared (and adjusted in line) with those permissible for depreciation purposes by the Australian Tax Office (ATO).

net household income equal to his level, then estimating the value of the concession applying at that income level, re-estimating the budget net of the estimated concession, substituting the revised income estimate, and then repeating the whole process.¹⁸

Second Hand Goods

In general, the budgets assume that all goods are purchased 'first hand' at prevailing market prices. However, there are some instances (e.g. in the clothing and footwear budget—see Chapter 6) where some discount prices have been factored into the budgets, or where households have been assumed to take advantage of sales when buying certain items, particularly when developing the low cost budgets. This has been done by reducing the estimated clothing and footwear budget across the board by five per cent to allow for sale purchases and other similar effects.

It is also assumed in general that households keep all of their consumer durables and other items with longer lifetimes (e.g. articles of clothing) until their value declines to zero, or they give the items away to charity.¹⁹ In other words, no goods are assigned a positive re-sale value that serves to recoup part of the initial cost when they are disposed of. If this approach were adopted, the initial purchase price would have to be specified net of the re-sale price, which would create some difficulty and be somewhat inconsistent with excluding second hand goods from the original budgets.

Gifts

The basic assumption made about gifts was 'gifts in equals gifts out' for each household. A consequence of this assumption is that no account needs to be taken of the impact of gifts when developing the budgets. Although this is unlikely to be equally accurate for all household types, it is the simplest and most easily justifiable treatment of gifts.

The assumption implies, for example, that any gifts given by children to others at birthday parties are offset by presents they receive on their own birthday. A similar assumption applies to meals eaten on special occasions or when friends come over for dinner, which are also assumed to cancel out over the course of the year.

2.5 Customisation and Derivative Budgets

Although budgets standards have been developed initially for only the limited range of households shown in Table 2.1, as explained earlier these can form the basis for estimating budgets more generally. This process is referred to as the *customisation* of budget standards, which can be applied either to different households at a given point in time, or to the given range of households at different points in time. In both instances, this involves deciding how the budgets standards that have been developed should be modified to fit a different set of household circumstances.

¹⁸ An example of this approach is contained in the household goods and services budget in Chapter 7 in its treatment of the Commonwealth's income-tested Child Care Assistance scheme.

¹⁹ An exception to this general rule applies in effect to motor vehicles, as explained in detail in the discussion of the transport budget in Chapter 9.

One important aspect of customisation that is of considerable research and policy interest involves manipulating the budgets to provide an estimate of how household costs vary with changes in household circumstances. These incremental costs, associated for example with increases in the age of children, or in the number of children in the household, or with sole parenthood, or with a change in housing tenure, or with a change in labour force status, are of particular significance for the setting of income support payment relativities for households in differing circumstances.

They can also have implications for the structure of public programs in the fields of child support, child care relief or housing subsidies, for example, and as has already been explained, the specification of the household types for which budget standards have been developed was undertaken with these dimensions of the customisation issue firmly in mind.

One of the most important aspects of customisation concerns the impact on the budgets set at a given standard of living of the incremental costs associated with additional family members. To the extent that the budget standards themselves represent the same underlying standard of living, comparisons across household types at that standard provide a method for estimating the *relative costs* required by differently structured households to achieve the same standard of living.

This approach to estimating what is generally referred to as an equivalence scale (Whiteford, 1985) has, as noted earlier, been recommended by a number of previous studies in the area, including those undertaken by SWPS (1981) and Manning (1984). Because an equivalence scale implicitly contains estimates of the *relative* needs of different individuals and households, and the costs associated with meeting those needs, they have important implications for the *structure* of social security and other income benchmarks across different households.

Key dimensions here include:

- the relativity between the budgets for single people and married couples;
- the sensitivity of budget relativities to the age and gender of household members; and
- the extent of economies of scale in relation to household size and composition.

In addition to providing important information on relative needs, budget standards also provide the basis for estimating the *absolute costs* associated with achieving a given standard of living for households of differing size and composition, although the earlier discussion has highlighted some of the limitations that apply to such comparisons.

There are, however, many dimensions to this issue, the most important among them including the following:

- the costs of children;
- the costs of sole parenthood;
- the costs of employment and job search; and
- the impact of housing tenure and costs.

The list of different household types and the characteristics pertaining to each of them (as shown in Table 2.1) was selected with a view to providing an estimate of each of the above dimensions.

In addition, the fact that budget standards have been derived at both the low cost and modest but adequate levels also means that it is possible to assess whether the calculated costs and relativities are sensitive to where the standard itself is set.

The problems inherent in using household budgets to estimate the relative and absolute costs of individuals are, however, formidable. These problems have been discussed by researchers associated with the work of the Family Budget Unit in the UK. Oldfield (1993; 1997), for example, notes that there are several alternative approaches to estimating the costs of a child using budget standards.²⁰

The first 'deductive' method, estimates the incremental costs directly by taking the difference between the budgets for households whose characteristics differ only in the specific feature of interest. Thus, the estimate of the costs of a child can be derived by deducting the budget for a couple without children from that for a couple with one child. An alternative approach is the 'itemised' variant method which involves isolating the costs of each separate commodity that appear in the budgets to discover the extra amounts that can be ascribed to children (Bradshaw, 1993b; Oldfield and Yu, 1993).

The main difference between the two methods (as explained at greater length in Chapter 14) arises from the different normative judgements that each embodies concerning the distribution among individual household members of the costs of those commodities that are consumed jointly by the household as a whole. Where items are not shared, such as clothing or personal care, the two methods produce the same results (Oldfield, 1993, p. 182).

The differences between these two approaches relate fundamentally to the concept of living standards that is described in the budget standards for the different household types. The goal of the budgets is to show the expenditure required for the people in each type of household to obtain some common standard of living, such as modest but adequate or low cost. In addition, as noted earlier, as well as attempting to reflect a common living standard, the budget standards are also intended to reflect commonly accepted norms of consumption.

It is virtually inevitable that a conflict will arise between these two goals. In particular, the goal of reflecting common norms of consumption means that the budgets will be influenced to some extent by the resources available to different types of households. Although every effort has been put into avoiding building existing resource inequalities into the budget standards, it has to be acknowledged that this can never be done perfectly (unless behavioural data are ignored altogether).

For example, the BSU leisure budget assumes that households with children (couples and sole parents) have a modest holiday in a self-catering unit on the mid-North coast of NSW, whilst couples without children and younger single women have a somewhat more expensive (on a per capita basis) hotel-based vacation in a similar location (see Table 10.6 in Chapter 10). Whilst this pattern of holiday-making reflects prevailing consumption norms and is consistent with evidence provided in the ASLS and feedback from the focus groups, it means that the

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These approaches are discussed at greater length in Chapter 14.

leisure budget for families with children is lower (on a per capita basis) than that for families without children.²¹

However, it might be argued that the lower consumption of the larger family primarily reflects income constraints (and possibly substitution effects), and hence the budget implies a lower living standard for couples with children. From this perspective, therefore, the deductive approach underestimates the costs of children—since it does not fully cost how much it would cost to maintain parental consumption (i.e. have the more costly holiday) when they have children. The itemised approach, on the other hand, would attempt to take this cost into account.

Oldfield (1993) applies both the deductive and itemised approaches to estimate the costs of a child using the UK family derived by the Family Budget Unit and finds that the itemised approach produces somewhat higher estimates, ranging from between six per cent and 13 per cent higher according to the age of the child and the housing tenure of the family (Oldfield, 1993, Table 12. 1). This suggests that the simpler, deductive method provides a lower bound on the costs of children, though not one that is too far removed from what more sophisticated (and considerably more complex) methods are likely to produce.

However, to continue the above example, one might argue that the amount of satisfaction that people derive from their holidays is identical, and hence that differences in the leisure budgets do accurately reflect the 'cost' of children. The different consumption patterns are, after all, defined with respect to views about what is normatively accepted in the community. Couples with children, for example, may compare themselves to other couples with children when evaluating whether their holiday amounts to a modest but adequate vacation or not.

The fact that couples without children may be able to afford a more expensive holiday may be ascribed as an acceptable facet of life cycle consumption patterns, or even as an inadequate compensation for the lack of child companionship on the holiday. These two interpretations of the deductive approach thus need to be born in mind when considering the results of the cost comparisons presented later.

Similar issues arise when considering the costs of sole parenthood. The UK budget standards have been used by Whiteford and Hicks (1993) to estimate the costs of sole (or lone) parents. A critical issue here is the benchmark against which those costs are assessed. The benchmark developed by Whiteford and Hicks is one in which it is assumed that there are no specific costs associated with sole parenthood.

In this case, they argue that the costs of a sole parent household can be derived by adding the individual costs of each member in the household. These can in turn be derived either by summing the costs of a single adult and those of the relevant number of children, or by deducting the cost of one adult from the costs of a couple with the same number of children. Finally, the 'extra costs' of sole parenthood are estimated by comparing the cost differentials that result from assuming that all costs can be assigned to individuals as described above and the *actual* costs of sole parent households, as derived from an estimated budget standard.

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Economies of scale in accommodation costs are also of some importance in this context. In addition, it needs to be recognised that the fact that the family with children have a 'cheaper holiday' does not mean that it is a lower-standard holiday, at least not from their perspective.

In applying the method using the UK household budgets, Whiteford and Hicks adopt the deductive method for estimating the costs of children. Their approach (explained in more detail in Chapter 14) involves subtracting the costs of a single female household from those for a sole parent with two children, and then subtracting from this the difference between the costs of a couple with two children and the costs of a couple without children.²²

The approach allows the costs of sole parenthood to be isolated from the costs of children. The method is applied separately to each of the main budget areas (food, housing, clothing, personal care, transport, etc.)—some of which produce negative costs—and these differences are then summed to derive the overall cost differences. The results indicate that, in the UK in October 1991, the total extra costs of sole parenthood were approximately equal to about 20 per cent of the budgets of a couple without children, with the main cost being associated with child-minding and baby-sitting expenses (Whiteford and Hicks, 1993, Table 14.3).

It is worth observing, however, that considerable care needs to be taken when specifying the original budget standards if the use of this kind of method to estimate the incremental costs associated with variations in household circumstances are to be regarded as reliable. An example may serve to illustrate the kinds of problems that can arise.

The original version of the BSU leisure budgets assumed that the sole parent household with one child shared a single bedroom unit on their holiday, while the couple with one child holidayed in an otherwise identical two bedroom unit. The effect was to raise the relative cost of the couple and thus to depress the estimated cost of the sole parent. However, this occurred because the couple were in fact enjoying a higher quality holiday than the sole parent (because they had their own bedroom), so that the two budget standards were not the same.

In the light of this, it was decided that the couple should also share a single bedroom unit with their child whilst on holiday, leading to a lowering of their costs and a corresponding rise in the estimated cost of the sole parent household. This is a rather subtle and complex argument that was not obvious until the initial round of budget standard estimates had been produced. One of the main lessons that it highlights is the value of budget standards research in highlighting such issues and providing a systematic framework for analysing them.

In general, the application of the incremental cost method to estimate the relative costs of different households and how these costs vary with individual household members provides a framework for customising the household budgets to circumstances other than those for which they are originally derived.

Thus, it is in principle possible to construct new households by combining the individuals in the existing households (shown in Table 2.1) and use the individualised costs derived from the initial household budgets to estimate the costs of the newly-constructed households. This approach to customisation allows the applicability of the budget standards to be extended, although it has to be emphasised that the estimates that result can be regarded as approximations only—particularly if the deductive method is used to derive them. The significance of this latter observation will become more apparent when the method itself is applied to estimate the costs of children and sole parenthood in Chapter 14.

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The discussion of this approach in Chapter 14 also presents an alternative interpretation of the figure that results from this calculation.

As long as the household is adopted as the unit of analysis, manipulation of the household budgets to derive estimates of the costs associated with individual household members will be problematic because of the difficulties inherent in assigning the costs of shared commodities to individual household members. The only way to avoid these difficulties would be to repeat the entire budget standard exercise for the new household type. This, however, is a very time-consuming and costly exercise, and there is value in exploring the usefulness of the 'incremental cost' approach before constructing an entirely new set of budget standards.

This dilemma could be avoided by basing the budget standards from the outset on the individual rather than the household as the unit of analysis. As noted earlier, this approach has the potential to provide greater flexibility to combine individuals together to form households, although it suffers from the problems associated with constructing individual budgets for those who live in households and thus share commodities to varying degrees.

Indeed, as noted earlier it is precisely the problems raised in developing budget standards for individuals where commodities are shared and consumed jointly within the household that provide the case for using a household unit of analysis in the final place.

Specific Customisation

Several other aspects of the customisation of budget standards have been explored during the course of the project. These relate to considering how the budgets can be modified to suit the circumstances of households who differ in fundamental ways from those for whom the budgets were originally constructed. Four particular aspects of this issue have been explored: geographic location; the presence of a household member who has a disability; large families; and the costs associated with having regular access to children for non-resident, non-custodial parents,

In relation to the *geographic customisation* of the budget standards, part of this has been handled through the development of a housing budget that allows housing costs for purchasers to be varied to reflect changes in house prices, while it is also possible to apply the methods used to derive housing costs for renter households to locations other than those reported here (see Chapter 3). However, although there are significant variations in housing costs that can, to a degree, be built into budget standards in this way, there is a good deal more to the geographical sensitivity of budgets than just housing costs.

Strictly speaking, the budget standards reported here apply only to households living in Sydney (although as noted earlier, some aspects of the food pricing method used average prices across the whole of New South Wales, while the housing budgets apply to only one LGA within the Sydney metropolitan region). This means that the relevance of the budgets to households living outside of Sydney is somewhat limited.

There are some differences in the prices faced by households living in cities other than Sydney, while people who live in rural areas face different prices for many items than those living in the main metropolitan areas. Indeed, the norms that apply in a rural setting are also likely to differ from those which operate in the main capital cities.

Somewhat similar issues apply in each of the four specific customisation areas mentioned above, which means that each requires a different approach than the incremental modification of existing budget standards described earlier. To this end, the project has utilised the feedback provided by a series of 'special need' focus groups, each comprising between eight and 10 people whose circumstances conform to the four specific circumstances listed above.

The aim of this component of the research has been to obtain some *preliminary* information on how relevant these groups see the budget standards that have been derived for households that do not have their special needs.

As explained in more detail in Chapter 13 below, this has involved presenting each of the four 'special need' focus groups with the initial budget standards for the households shown in Table 2.1 that correspond most closely to their own situations, and asking for their comment on how relevant the coverage and costs of the budget are to their own special circumstances.

It is very important to emphasise that this aspect of the customisation of budget standards, while a useful input into evaluating their applicability to households in special circumstances (and in some instances, with special needs), is not a substitute for developing budget standards that are designed specifically to be appropriate to the circumstances of such households. It is certainly not possible to use the information provided during the course of the focus group discussions as the basis for deriving new budget standards.

The 'special need' focus group discussions have provided a useful basis for thinking more systematically about how and where the budget standards would need to be modified in order to be more relevant to those special circumstances, but how this might be achieved in practice must be the subject of further study. Having said this, however, it is also the case that these four focus groups did provide very valuable feedback, not only on how the budgets might need modifying, but also on their more general relevance to Australian households.

The BSU research team is of the view that focus groups have an important role to play in validating the budget standards and generating community understanding and acceptance of them. There is a need for further work in this area as part of the process of gaining support and legitimacy for budget standards, as well as in helping to further refine them.

2.6 Sensitivity Analysis

It is apparent from the discussion in this Chapter that one of the strengths of the budget standards approach lies in its ability to transform normative or prescriptive judgements about need into household budgets that can serve to indicate the incomes required to achieve particular standards of living. It is also clear that the method can accommodate many different assumptions and prescriptive judgements about needs and investigate what they imply, for household budgets.

In the light of the great variety of assumptions and data sources required to derive a budget standard, it would not be justifiable to claim that those produced here are definitive in the sense that they cannot (or should not) be subject to further assessment and refinement where appropriate—particularly in areas where new data may become available.

It is also worthwhile to undertake some kind of sensitivity analysis to assess how much the budgets vary when their scope and underlying assumptions are altered. In order to illustrate the value of such sensitivity analysis, results are presented later (in Chapter 12) which investigate the impact on the budgets of changes in the lifetimes assumed for those consumer durable items that are not immediately consumed.

As explained earlier, the budgets have taken as the starting point for determination of the lifetimes to assign to each item, those that were assumed in the UK research on budget standards. These lifetimes have been varied when there has been evidence available for

Australia suggesting that a variation is justified, although in general, the lifetimes embodied in the Australian budgets do not vary much from those used in the UK.²³

The precise form of sensitivity analysis that has been undertaken involves varying the assumed lifetime of all items that have an assumed lifetime of one year or more and assessing what difference this makes to the overall budgets and to their composition.²⁴ A range of variations to the benchmark lifetimes have been experimented with, and the presentation of results for each of them in Chapter 12 provides an initial indication of how important the issue is in practice.

In the limiting case, as the lifetimes of durable goods is progressively lengthened, the amount included in the budgets for these items gradually declines. (As noted earlier, the lifetime has the mirror-image impact on the household budget to a corresponding change in the price of the item.) In the limiting case, when the lifetimes are assumed to go on forever, the budget amounts for consumer durables disappear completely.

This is an extreme case, but is equivalent to the situation where durable goods are effectively excluded from the budget entirely (because their cost falls to zero when their purchase price is spread over an infinite lifetime). An alternative justification for excluding durables rests on the proposition that once they have been purchased, the flow of services derived from them can be obtained at no cost to the household.

Although both of these reasons for excluding the cost of consumer durables from the development of a budget standard can themselves be criticised, there is a case for exploring how the budgets change as the assumed lifetime of durables is gradually extended. The whole question of whether or not it is legitimate to include consumer durables in the development of a budget standard raises a number of fundamental issues which are analysed in more detail in Appendix 2.C.

2.7 An Overview of the Main Limitations of the BSU Budget Standards

The foregoing discussion in this Chapter has explained the methods used to develop the BSU budget standards and how these have been put into effect given the availability of data and other factors. At several points in the text, the limitations that apply to the resulting budget standards have been emphasised. The fact that such limitations always apply to budget standards is an inherent feature of a methodology that leaves scope for many areas of legitimate disagreement—as is inevitable in any piece of research that embodies many value judgements.

This feature can be seen as a weakness of the budget standards approach, or as one of its strengths. Those who are uncomfortable with a methodology that leaves so many issues unresolved and open to criticism will question the usefulness of budget standards in informing policy decisions in circumstances that will always be subject to attack from the critics.

²³ An exception is in the transport budget, where the BSU assumed that the average age of cars was much higher than had been assumed in the UK budget standards work.

²⁴ The composition of the budgets changes because items with lifetimes of one year or more feature more prominently in some component budgets than others.

Those who are more supportive of budget standards will see them as providing a framework within which many of the underlying issues and judgements surrounding such concepts as adequacy can be identified and debated constructively. Although these decisions will ultimately be taken in the political arena, budget standards have a role to play in informing those political judgements.

The most important point to emphasise as a result of this assessment is that there are a number of important limitations of budget standards that need to be drawn to the attention of those who wish to use them, either as a benchmark for assessing income adequacy or for related living standards decisions.

Some of these limitations apply to the assumptions, methods and data used to develop the various component budgets. These can always be improved upon, although those presented here in Chapters 3 to 11 are a reasonable representation of the best that can be achieved in the current circumstances. If this research prompts others to endeavour to improve upon the estimates presented here, it will have served part of its purpose.

Because of this, it is to be hoped that considerable and fruitful use will be made of the component budgets presented in the following Chapters. These component budgets bring together an enormous amount of information on consumption norms and behavioural patterns that provide new and important insights into aspects of the living standards of Australian households in the 1990s.

There is, however, more to a budget standard than just its component budgets. These sum to give the overall budget standard and the incomes required to buy what corresponds to that standard. It is in this latter process of summing the component budgets that further issues arise over the interpretation to be placed on the resulting figure. An important issue in this context is the extent to which the failure to make any allowance for substitution between the different commodities that comprise the budget standard leads to an overestimate of the income level that households would actually need to allow them to attain the standard to which the budget itself applies.

There can be no allowance for such substitution within a budget standards framework which, by its nature, assumes that normative standards are attained in each of the separate dimensions of the living standard. However, the fact that I may willingly choose to forgo attaining the food or clothing standard in order to obtain a better housing standard does not diminish the fact that I am not achieving the specified levels of consumption with regard to food or clothing. I may be better off with the trade-offs I have made (indeed, that is presumably why I made them) but nutritionists and clothing experts would nonetheless look with concern at my consumption of food and clothing.

These aspects of a budget standard and how it differs from the choices actually made by households needs to be clearly understood before the budget standard itself can fulfil its role of informing decisions and policies relating to adequacy and living standards.

It is useful to complete the discussion of research methods in this Chapter by summarising the main limitations that attach to the BSU budget standards. These can be divided into three separate areas: *conceptual limitations* of the budget standards method itself; *strategic limitations* of the BSU approach; and *practical limitations* of the estimates actually derived and presented later. Each is dealt with in turn.

The main *conceptual limitation* of the budget standards methodology itself is undoubtedly the difficulty that arises in identifying the community norms from which to start to construct the standards. This is exacerbated by the difficulty of achieving an appropriate balance between the normative standards and the actual descriptive or behavioural data that influence the final budget standard. To place too much weight on the behavioural data risks undermining the role of a budget standard in providing an independent benchmark for living standards, while to ignore the behavioural data altogether would leave the budget standards too far detached from everyday experience and attitudes.

As a result of these conceptual limitations of the budget standards methodology, it is very difficult to be sure that the budget standards that are eventually produced correspond to the *same* standard of living—either across the different component budgets for given household types, or in aggregate for the budget standards as a whole as between different household types.

The main consequence of these difficulties is that the budget standards that are produced will always be open to the criticism that they are, in important ways, essentially arbitrary. Furthermore, given the complexity of the method, it is all too easy to identify aspects of the standards which, when considered in isolation and taken out of context, can be made to seem far more arbitrary than they actually are. The only response to such criticism is to decide whether it provides a basis for replacing what has been done with a better alternative and to check how much difference the aspect being criticised makes to the final budget standard.

The BSU research has attempted to address these problems through several aspects of the way that the project has been designed. First, by using a series of 'rules of thumb', an attempt has been made to minimise the impact of arbitrary choices by imposing a consistent overall framework on the entire exercise—even though it is acknowledged that the practical application of the agreed rules of thumb is not itself unproblematic, particularly given the limitations imposed by the quality and coverage of the available data in many areas.

As noted earlier, the decision to apply a 'rule of thumb' itself involves a judgement, as is the precise form in which it is applied and the final decision made regarding the balance to be struck between normative and behavioural criteria.

The use of sensitivity analysis as an integral part of the project is another attempt to overcome some of the inherent limitations of the budget standards method. The provision of the underlying data and assumptions in the form of a computerised spreadsheet is designed to make it easier for others to vary the assumptions and data that have been used and check what difference this makes to the resulting standards. The analysis of the sensitivity of the standards to the assumed lifetimes of consumer durables provides a vivid illustration of the value of this form of analysis.

Ultimately, the value and usefulness of a budget standard rests on its acceptance and legitimacy in the community at large. The BSU has attempted to take some steps in this direction by exposing its methods to the BSU Steering Committee throughout the research process, through comparing the preliminary budgets with the available Australian data on household behaviour, and through obtaining focus group feedback on the content of the budgets themselves.

These features of the research are particularly important and could be strengthened in any future research on budget standards.

In relation to the *strategic limitations* of the research, the most important factor here relates to the decision to locate the BSU households in a specific location for the purpose of developing the budgets. This is an inevitable part of constructing the budget standards because location affects so many aspects of them.

The most important of these concerns the housing budget, which can only be realistically derived for a specific location. The problem that arises in this context, however, is that the particular features of the housing market in the chosen location have an important impact on how the normative standards translate into an actual housing budget, thus reducing their representativeness.

In addition, the choice of location has consequences that extend beyond the housing budget itself. One of the most important of these is in relation to the transport budget, where the availability of transport services and hence the nature and cost of the transport budget depends upon the quality and range of transport services that are available in the chosen location.

The fact that the quality of public transport varies considerably from one local area to another means that the assumptions that underlie the transport budget are constrained by the location chosen for the housing budget. Thus, for example, there are no public bus services operating in the Hurstville LGA (only private operators) and this means that it was not possible to include in the transport budget those fare concessions that only apply to passengers using public transport.

Another consequence of choosing a specific location arises in relation to the food budget. The BSU food budget assumes that all households are able to purchase their food at supermarket prices, which means that all BSU households must be located reasonably close to a major retail centre that includes a supermarket (otherwise adjustments have to be made to the transport budget). This is a reasonable assumption to make in the case of households living in the Hurstville LGA, although there are again implications for the ease with which households are assumed to be able to travel to and from the supermarket to buy their groceries.

Overall, it can be seen in retrospect that there are several important and inter-connected consequences of locating the BSU households in a specific location, many of which were not obvious at the time the initial decision was taken. The choices that have been made are, however, defensible even though it has to be acknowledged that the ability to apply the budgets to other locations is constrained by the kinds of interactions described here.

Finally, the main kinds of *practical limitations* that apply to the research relate to the lack of availability of data, or to the quality and relevance of the data that are available. Although an enormous range of data from a great variety of sources has been used to develop the BSU budget standards, there are many areas where what was done was heavily constrained by the data that were available.

These difficulties were compounded by the fact that the number of household types for which a budget standard has been developed was so large and the details of each household's situation so complex. This complexity was introduced in order to maximise the applicability of the resulting standards, although it has also added greatly to the research task, particularly given the data limitations already alluded to.

The underlying trade-off that has to be faced here, as elsewhere in research on budget standards, is that between realism and representativeness. The more one strives towards

realism, the more detailed the household circumstances have to be and the less representative the resulting budget standards become.

The fact that the issue ultimately comes down to a question of choosing which among the available alternatives is best in the light of the data and other practical limitations on what is possible again illustrates the value of conducting research of this kind in a coherent framework that provides a discipline on thinking about the underlying difficulties and the alternative ways of resolving them.

APPENDIX 2.A: Specification of Development of Indicative Budget Standards for Australia (Attachment A of Budget Standards Contract)

ATTACHMENT A

Specification of Development of Indicative Budget Standards for Australia

Purpose of Consultancy

The Consultant will develop and present indicative Budget Standards for Australia and propose a cost-effective strategy for the customisation and updating of the standards so developed.

Definitions

A budget standard is a specified basket of goods and services, representing a particular, defined standard of living, which has been priced.

The modest but adequate standard of living means one that affords full opportunity to participate in contemporary society and the basic options it offers. It is seen as lying above the requirements of survival and decency but well below luxury as it is commonly understood. It is seen as an attempt to describe the situation of a household whose living standards fall somewhere around the median living standards experienced within the Australian community.

The low cost standard of living represents a level of living which may require frugal and careful management of resources but which would still allow full social and economic participation consistent with community standards and to enable the individual to fulfil community expectations in the workplace, at home and in the community. Whilst it should not be seen as a minimum standard, it is intended to describe a level below which:

- it is increasingly difficult to maintain an acceptable living standard; and
- there exists an increased risk of deprivation and disadvantage.

In order to develop a budget standard, it is necessary to make assumptions regarding the characteristics of the household. Assumptions regarding age, gender, number of children and employment status are given in the table on page 3 of this attachment. Other assumptions, for example size of house, ownership of motor vehicle etc, will be spelt out by the Consultant, based on patterns of behaviour in the Australian community.

Composition of Budgets

The items included in each budget including their quantity, quality and price will be specified. An estimated lifetime for those items purchased on an infrequent basis, for example, household appliances and clothing, will also be specified.

The following categories of goods and services will be considered in both the modest but adequate and low cost budgets:

Housing;

- Energy use;
- Food;
- Clothing;

Household goods and services;

Personal care;

- Transport;
- Leisure goods and services; and
- Other child-related costs.

In considering the categories of goods and services listed above, the consultant will have regard to, but not be limited to, the following:

- Housing must meet or exceed any relevant local or State government health and safety requirements in both the modest but adequate and low cost budgets. Modest but adequate and low cost budgets will consider the costs of both private rental and owner occupied housing. In addition, the low cost budget will also include public housing.
- Within the food category, nutritional requirements must be met in both the modest but adequate and the low cost budgets.

The household goods and services budget will include all the furniture, furnishings and household equipment necessary to carry out normal activities within the home, including the costs of cleaning and maintaining equipment, furniture and clothing.

- Within the personal care category, health care is an essential element. Alternative personal care budgets will be constructed to account for the different situations facing those with or without private health insurance. Other elements to be considered in this category include personal hygiene, personal accessories and cosmetics.
- Development of the transport category will be consistent with the assumptions relating to place of residence in relation to place of employment, vehicle ownership and leisure activities.

Based on the modest but adequate and low cost budgets, the costs relating specifically to sole parenthood, children and the relative costs of children to couple and single parents will be identified.

Household Types

The budget standards developed will cover the household types shown in the table following:

Household	Number of adults	Adult's Characteristics	Number of Children	Children's Characteristics
1	1	Female age 35	0	not applicable
2	2	Male age 40 Female age 35	0	not applicable
3	2	Male age 40 Female age 35	2	Boy age 14 Girl age 6
4	1	Female age 30	1	Girl age 6
5	1	Male age 70	0	not applicable
6	2	Male age 70 Female age 65	0	not applicable
7	2	Male age 40 Female age 35	1	Girl age 6
8	2	Male age 40 Female age 35	1	Age 14
9	2	Male age 40 Female age 35	1	Age 3
10	2	Male age 40 Female age 35	3	Age 3, 6 and 14
11	2	Male age 40 Female age 35	4	Age 3, 6, 10 and 14
12	1	Female age 30	2	Age 3 and 6

Alternative budgets for household 7 will be derived to reflect the following employment status categories:

1. Both adults unemployed;
2. Adult male employed full-time, adult female not in labour force;
3. Adult male employed full-time, adult female unemployed; and
4. Adult male employed full-time, adult female employed part-time 15 hours per week.

Budget standards will be derived for households 1-9 and 12 at both the modest but adequate and low cost levels whilst budget standards for households 10-11 will be derived for the modest but adequate level only.

General Organisation of the Project

The SPRC's Director, Dr Peter Saunders, will provide supervision and have overall responsibility for the research and entire project. Ongoing involvement and advice on technical aspects of the research will also be provided by Bruce Bradbury, Senior Research Fellow at the Social Policy Research Centre. Professor Bradshaw from the University of York will act as an adviser to the project.

The Consultant will set up an autonomous unit known as the Budget Standards Unit (BSU) which will undertake the research, including documenting the underlying assumptions, preparing and costing the budgets and publishing the results. The BSU will comprise a

Research Director (full-time), a Senior Research Assistant (full-time), a Research Assistant (full-time) and a Research Assistant (half-time).

Contributions from permanent SPRC staff will be:

- Dr Peter Saunders (Project Manager/Director): at least six hours per week of Dr Saunders's time will be spent exclusively on this project;
- Mr Bruce Bradbury (Project Adviser): at least four hours per week of Mr Bradbury's time will be spent exclusively on this project.

Professor Jonathan Bradshaw will be engaged as a consultant to the project for a period of not less than one week full-time,

A Steering Committee, to be formed and organised by the BSU, will comprise around 15-20 experts drawn from a range of backgrounds (for example experts on housing, nutrition and health) and two representatives from the Department of Social Security. The Steering Committee will oversee the project and guide its development.

Focus Groups will be used to explore, extend and validate the research findings and to give the findings greater legitimacy. Nine different Focus Groups will be constituted as shown below:

Focus Group 1	A group of non-aged single people (i.e. males aged less than 65, females aged less than 60);
Focus Group 2	A group of aged (males ages 65 or more, females aged 60 or more) people, (singles and couples);
Focus Group 3	A group of couples with one or two children;
Focus Group 4	A group of sole parents;
Focus Group 5	A group of couples with three or more children of different ages;
Focus Group 6	A group comprising both members of 'blended households' and parents who have access to children from previous relationships on a part-time but regular basis;
Focus Groups 7 and 8	Two groups from locations other than State or Federal capital cities with at least one from a rural location; and
Focus Group 9	A group of people with a range and varying levels of a physical disability.

Each of the Focus Groups will consist of about 10 members.

The focus group part of the research will be sub-contracted to the Australian Council of Social Service (ACOSS) and the Brotherhood of St. Laurence (BSL). The ACOSS focus groups will be set up and conducted in Sydney and the BSL focus groups will be set up and conducted in Victoria.

Research Design

The household unit will be used as the baseline for the development of the budget standards. However, the feasibility of the use of the individual as the basic building block for development of the budgets will be explored during the initial stages of the project and the advantages and limitations of each method will be presented in the Final Report.

The first step in developing the Budget Standards will involve drawing on experts (including those on the Steering Committee) to develop household profiles which conform with the standards relevant to the modest but adequate and low cost budgets.

Having agreed which items within each category (as specified on pages 1 and 2 of this attachment under 'Composition of Budgets') to include in the budgets for each household type, the next step is to cost those items. An indirect approach may be adopted (eg obtaining price lists from major retailers) although the direct approach of (for example) sending people into retail outlets to record displayed prices is also possible. Both the direct and indirect approaches will be explored and the views of the Steering Committee taken into account.

As the household profiles are built up, they will be compared to levels and compositions of household expenditure data contained in the *1993-94 Household Expenditure Survey*. For the modest but adequate standard, comparisons will be made with the actual pattern of expenditures of households at or close to the median level of expenditure in the *1993-94 Household Expenditure Survey*. The low cost standards will be considered against households with an expenditure close to 50 per cent of the median in the *1993-94 Household Expenditure Survey*. This component of the research will test the extent to which the expenditure patterns derived from the expert development of the budget standards deviate from the actual expenditure profiles of Australian households and, where they do, to understand and explain why this is the case.

Finally, the budget standards themselves and the expenditure patterns they imply will be subject to critical scrutiny from the focus groups. The focus groups will provide feedback on the composition and scope of the budget standards and assist in the task of customisation of the budgets (see below under 'Special Issues'). The budget standards will be refined based on focus group feedback.

The above design is subject to variation upon written agreement between the Project Officer and the Consultant.

Special Issues

At a minimum, the following special issues will be addressed during the project:

1. Economies of scale for households with varying numbers of adults and children;
2. Effect of age on the costs of adults;
3. Costs of children according to their age and position in the household;
4. Costs of sole parenthood;
5. Costs of job search and employment;
6. The impact of shared child residential arrangements on costs of children;

7. The costs of disability;
8. The sensitivity of budget standards to geographic location and in what respects location is important; and
9. The applicability of budget standards in establishing the cost of children in high income families.

Items 1 to 5 in this section will be elaborated upon and have cost estimates presented in the final report. Items 6 to 9 will be presented in either the final report or the technical paper series or both, although cost estimates will not necessarily be reported. Items 6 to 8 are to be addressed, at least in part, through the use of focus group research.

Updating

Options for maintaining the currency of the budget standards (for example for inflation or changes in behavioural patterns in the Australian community) in the short-, medium- and long-term will be explored as part of the project and reported in the final report.

Reporting and Formatting of Results

The requirements for the reporting and formatting of results for this project are given at Paragraph B of Schedule 1. In addition, the work of the BSU including the SPRC Newsheets, will be described and its output publicised through the SPRC's publication outlets. Newsheets and Working Papers will be supplied to the Department upon their publication. Newsheets will also be sent automatically to: all focus group participants; members of the Steering Committee; and other interested parties and individuals.

APPENDIX 2.B: Membership of the Budget Standards Unit Steering Committee

Katrine Baghurst Director Consumer Nutrition Human Nutrition Division CSIRO	Peter Kell Australian Consumers' Association (Choice Magazine)
Fiona Carberry Parenting Policy Parenting Branch Department of Social Security (Temporary Appointment)	Jennifer Kelly Research Director Social and Government Research AGB McNair
Peter Davidson Senior Policy Officer Australian Council of Social Services	Anthony King Senior Research Fellow NATSEM
Dr John Ernst Victorian University of Technology (until October 1996)	Harry Kroon Director Household Income and Expenditure Section Australian Bureau of Statistics
Kevin Forde School of Health Services Management UNSW	Ian Lester Nutritionist Australian Institute of Health and Welfare
Chris Foster Assistant Secretary Strategic Analysis and Evaluation Branch Department of Social Security	Professor Peter McDonald Demography Program Research School of Social Sciences Australian National University
Dr Kate Funder School of Health Service Management Australian Institute of Family Studies	Dr Helen Moyle Welfare Section Australian Institute of Health and Welfare
Michael Gourlay Executive Officer Family Resource Centre Thomastown VIC (until April 1996)	Dr Loucas Nicolaou Director Poverty and Social Analysis Section Strategic Development Division Department of Social Security (from April 1996)
Robert Holbert Adequacy Project Team Department of Social Security (until April 1996)	Carolyn Paulin Home Economist Home Economics Institute of Australia Inc.

**APPENDIX 2.B: Membership of the Budget Standards Unit Steering Committee
(Continued)**

Judy Raymond
Assistant Secretary
Sole Parent Program
Department of Social Security

Dr Stephanie Short
School of Health Services Management
UNSW

Consultant
Associate Professor Heather Greenfield
Department of Food Science and Technology
UNSW

Don Siemon
Social Action and Research Division
Brotherhood of St. Laurence

Judith Yates
Economics Department
University of Sydney

Observers
Kerry Flanagan
Assistant Secretary
Retirement Programs Branch
Department of Social Security

Dr Peter Whiteford
Director
Social Research Projects
Strategic Planning Division
Department of Social Security

APPENDIX 2.C: The Treatment of Durable Goods in Budget Standards

The development of a budget standard is motivated by the desire to estimate the cost of attaining a given material standard of living. Implicit in the method is the idea that the standard should not only be *attained*, but also that it can be *Maintained* over time.

If all goods were consumables like food or medicines, or services such as haircuts or going to the cinema which are consumed as they are bought or very shortly thereafter, then attaining a given standard could be estimated as being equal to the cost of purchasing these items in each period. It would then follow by definition that since the standard is attained in each period, it would also be maintained over time.

However, this approach cannot be applied to consumer durables like washing machines or refrigerators. The distinguishing feature of these items is that they are not entirely 'used up' or consumed in the period in which they are purchased, but instead provide a flow of services (clean clothes, cold food and drinks) over time.

What determines the standard of living is the *consumption* of goods, either directly in the case of food, or indirectly, as in the case of the washing machine or refrigerator where it is the *services* provided by the good, rather than the good itself, that are consumed and add to the standard of living. It is worth recalling here also that the needs from which a budget standard is developed are *consumption needs*.

Because the services provided by durable goods benefit those who own them over a substantial period of time, the standard of living that can be *Maintained* over time will differ from what can be *attained* from a given level of expenditure in a specific period of time. The conventional budget standards treatment of durable goods (defined for current purposes as all goods that have a lifetime of one year or more) involves assuming a particular lifetime for each good and then spreading their initial purchase cost equally over that period.

Thus, for example, a washing machine costing \$700 with an assumed lifetime of 10 years enters the household goods and services budget at an annual cost of \$70, or \$1.34 a week. A \$1,200 refrigerator lasting for 15 years would involve an annual cost of \$80, or \$1.53 a week, and so on.

This approach of amortising the cost of durable goods over an assumed lifetime can be thought of as treating these goods in the budgets as if they had been rented by the household rather than actually purchased. This is the method proposed by Manning (1984) for dealing with durables in constructing household budgets and equivalence scales.

Alternatively, the method can be thought of as estimating a depreciation schedule for each durable good using the 'straight line' method and then attributing the annual value of depreciation—in the same way that businesses are allowed to treat depreciation of their assets as a legitimate cost for tax purposes—as a cost to the household each year. Both methods implicitly assume that the cost of durable goods is entirely expired over the assumed lifetime, or that their re-sale value at the end of their life is zero.

The method used to derive an estimate of the annual cost of durables is somewhat crude and it is possible to argue that the 'declining balance' method (under which consumption or depreciation would be estimated as a fixed percentage of the value of the good at the beginning of each period) should be used instead of the 'straight line' approach described above.

However, this method would imply that the budgets of otherwise identical households at the same standard of living would vary according to the time at which they purchased each durable item. It would also add considerably to the complexity of constructing a budget standard in the first place, and make the interpretation of the standard considerably more obscure.

In practical terms, the budget standards approach implies that, once durable goods have been purchased, the extent to which they enter into household budgets in subsequent periods is imputed and is thus not a direct drain on the income of the household at that time. Against this, it should be noted that corresponding to the zero actual costs that households experience once the durables have been bought are the very substantial costs incurred at the actual point of purchase.

The straight line depreciation method averages these costs out, so that the budgets remain constant over the assumed lifetime of each item, as would occur if it was assumed that the household was renting their durables, either from an outside agency or implicitly from themselves.

It might seem to be the case that once the household has acquired all of its durables, the expenditure, and hence the household budget required to maintain a given standard of living should not include an allowance for the costs associated with the amortisation of household durables. This would imply that the cost required to *Maintain* the household at a given standard of living once it has acquired all the consumer durables it needs is lower once the household has been *Established* by purchasing those durable goods.

This is true in a purely arithmetical sense, in that once a washing machine has been bought, it does not have to be bought again. Put differently, the cost of maintaining a household at a *given* standard of living is lower if the household already owns a washing machine than if it is in the process of buying one (e.g. through a hire purchase agreement or by repaying the cost through the use of a credit card), or if it is renting the washing machine from a private contractor.

But if two households are identical in all respects aside from the fact that the first owns a washing machine while the second does not, then it follows as a matter of logic that they cannot be at the same standard of living. To exclude the costs associated with buying the washing machine from the budget of the first household would be in effect to deny them the resources used to purchase the washing machine in the first place.

This in turn raises the question of how the first household was actually able to purchase its washing machine in the first place? If no allowance is made in estimating a budget standard for this household for the cost of buying its consumer durables, how can it be expected to purchase the goods that form part of the standard on which the budget is based?

It follows that because of the way that the cost of durables is incorporated into the development of budget standards, that the distinction between the cost of *Establishing* a household and the cost of *Maintaining* a household at the same standard of living is spurious. Achieving a given standard of living involves acquiring some consumer durables and the cost of these *must* be included in the budgets that correspond to the assumed standard. Either that, or the standard itself must be varied, although this would have to be made explicit and would involve stepping outside of the conventional budget standards framework.

It is important to recognise that budget standards are developed such that *over the longer-term*, if a household were to be provided with an income corresponding to the level of that household's budget at a particular standard of living, this would be just sufficient to purchase all of the items—consumables as well as consumer durables—that would be required to achieve that standard.

As Bradshaw explains:

'Although the use of credit is a very common part of family budgeting, in a budget standard, spending out of savings or credit is represented by a particular consumption item and amortised over an item's lifetime. For these reasons it would be inappropriate to include savings and the payment of debts as free-standing items in the budget. However in calculating the resources required to purchase the budget, borrowing and expenditure out of savings can be taken into account in assessing the total income that is required to sustain the specified standard of living.' (Bradshaw, 1993b, p. 64)

The key feature of the treatment of saving in developing a budget standard is that it is used to purchase the items that are necessary both to *attain and maintain* the specified standard of living. Without the saving, the consumer durables could not be purchased. Without the durables, the standard of living could not be attained.

To take a simple example, consider a household that purchases all of the durable items required to achieve a given standard of living at the same time and that each item has a lifetime of exactly 10 years. The budget standard of this household is derived by averaging the cost of each of these items over 10 years and then adding the resulting figure to the cost of all of the consumable items also needed to achieve the given standard of living.

If the household were provided with an annual income equal to its calculated annual budget for a period of 10 years, it would have just enough to purchase all of the items needed to attain the relevant standard of living, no more or no less (assuming for simplicity that the rate of interest is zero). It follows therefore, that since all of the income would have to be spent over the 10 years in order to achieve the standard, and since all of the consumer durables would 'wear out' over the period leading to no overall change in the net asset position of the household, the net savings of the household over the 10-year period must equal zero.

If, however, the situation of the household is considered once it had been established, in the sense that all of its consumer durables have already been purchased, then providing it with an income equal to its derived annual budget standard would give the impression that part of this income was being 'saved' because not all of it would be needed to buy the consumable items that had already been acquired.

However, this apparent 'saving' represents that part of the amortisation of the cost of the consumer durables which enters into the specification of the standard of living that underpins the budget standard. It is no more a form of saving than the hire purchase or credit costs associated with paying off the price of durables bought on credit rather than as an outright purchase.

It is of course true that *once durable goods have already been purchased* the income associated with a given budget standard would not need to be spent on buying them again. But this does *not* imply that that level of income is sufficient to sustain the underlying standard of

living. If, for example, government benefits were set at a level equal to the consumables component of a low cost budget standard only, the clear implication would be that those in receipt of such benefits would not be able to maintain a low cost standard of living.

Over time, as their consumer durables began to finally wear out, households who were in receipt of a government benefit set at this level would find that they did not have the resources needed to replace them. As a result, they would be forced to make do with them for longer periods and would—according to the logic of budget standards—experience a decline in their standard of living.

This does not mean that setting benefits at such a level cannot be justified on specific grounds, only that a conventional low cost budget standard is not one of these. The case would have to be made using other criteria, relating either to a notion of adequacy that seeks to satisfy only short-term needs (as discussed in Section 1.A.4 of Appendix 1.A), or drawing on the other goals (e.g. maintaining an appropriate incentive structure or meeting external budgetary cost targets) of the benefit system.

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CHAPTER 3: THE HOUSING BUDGET*

3.1 Introduction

Housing is one of the most important elements in the budgets of most Australian households. The quality of housing is a crucial determinant of the overall quality of life (or standard of living) and the cost of housing is a major component of many household budgets. However, both are also subject to great variation.

Although as a general rule, the *price* of housing rises with housing quality, for owner occupiers (though not necessarily for tenants) the relationship between housing *costs* and housing quality varies over the life course, so that the actual cost of housing of a given quality will vary according to when it was purchased. But there are also other, equally important reasons why housing costs vary. The most important of these is *location*.

The cost of housing in Australia is specific to its location. Two houses, built from the same materials, with similar aspects and identical room plans, fixtures and furnishing will vary in price purely by virtue of their location. While it is difficult to argue that housing in different locations is of identical quality, there is a clear premium on the cost of housing in the capital cities generally, and in Sydney in particular. Even within Sydney, there are important variations in the costs of housing by location.

In addition, variations in housing tenure and housing characteristics make it very difficult to establish a single housing standard for use in the BSU budgets. The dilemma underlying this difficulty reflects the nature of the Australian housing market, which is characterised by its *variety* when what is ideally required for budget standards purposes is a single *representative* figure—in relation to both quality and cost.

The BSU research has attempted to overcome some of these problems by considering the housing budgets of a range of different households living in a single locality. This method has been used in the development of budget standards for the United Kingdom (Bradshaw, 1993) where all budgets were derived for households living in York in the north of England. Adopting this method implies that the cost of housing estimated in the budget are costs applying in this locality only.

This budget was prepared by Roisin Thanki, Jenny Chalmers and Peter Saunders, with assistance from Michael Bittman. The authors wish to thank all those who provided information and advice during the development of this indicative housing budget. Special thanks for assistance and advice are due to members of the BSU Steering Committee, especially Peter McDonald, Anthony King and Judith Yates. David Welfare at the Real Estate Institute of New South Wales freely provided information and expert advice on aspects of the housing market, as did several valuers and estate agents in the Hurstville area. Thanks and appreciation are also due to staff at the NSW Department of Housing, especially those at the Bankstown and Riverwood offices, and to members of staff of the Department of Social Security. John Mason from the Office of Housing Policy in the NSW Department of Urban Affairs and Planning helped in the search for data on maintenance and repair costs. Sue-Ellen Tange, Project Manager of St. George Home Modification and Maintenance Services also provided useful information in relation to this component of housing costs. Special thanks are also extended to the Mayor of Hurstville and Council staff, who not only directed the BSU towards sources of information about the area but who also showed great interest in the project. There are others who generously provided information, advice and more time than they were required to, in particular Gorana Popovic, Cassandra Rickarby and Dollin Wong Turvey Solicitors. Helpful comments on an initial draft of the paper were provided by Jonathan Bradshaw and Leslie Hicks.

However, as explained in more detail below, the housing budgets estimated, by the BSU for the chosen locality have been developed so as to facilitate their conversion to other localities. This is one aspect of the broader issue of the 'customisation' of budgets, designed to extend their applicability across different groups in the population and across different points in time. The solution adopted is not ideal, although it would be difficult to improve upon it, other than by developing a more sophisticated model of housing costs than has been possible given the resources available to the BSU.

It is worth noting here that in several of the European countries where budget standards have been in existence for some time (e.g. Denmark, Norway and Sweden) no attempt has been made to estimate a housing budget because of the difficulties of variability and representativeness.

In the light of these problems, a strong case can be made for treating the housing component of the budget standards separately from the remaining components. This should be kept firmly in mind when using the overall BSU budgets inclusive of housing. For the moment, it is important to emphasise that because of the inherent difficulties of specifying a representative housing cost independent of locality, the estimates presented below should be treated with particular caution, especially when applying the housing budgets to locations which differ from that on which they have been based.

3.2 Methods

As explained earlier, the origins of the budget standards approach lie in the pioneering research on poverty in York undertaken around a hundred years ago by Seebohm Rowntree (1901). The housing budgets described here follow the same basic approach and have been prepared for the 12 basic BSU household types described in Chapter 2 at two distinct standards: a modest but adequate standard and a low cost standard.

The characteristics of each of the household types for whom budget standards are being developed are designed to include a range of households representative of broad sections of the general population, as well as a number of household types of specific interest to the Department of Social Security.

Developing the Housing Budget: Overview

As with the general approach being used to prepare the indicative budget standards, the BSU housing budgets are predominantly normative (based on judgements about the quality of housing required to meet the need for shelter at the low cost and modest but adequate standards) but are also informed by behavioural data that reflect the housing choices and actual circumstances of Australian households, and conform to the realities of the Australian housing market. This approach is designed to ensure that the normative judgements which underlie the budgets are clearly articulated and explicit, but that the budgets also reflect actual choices, behaviour and circumstances.

The approach begins by identifying actual houses in particular locations which have been used as the basis for the development of the housing budgets. One consequence of adopting this approach is that it reduces the extent to which the budgets can be generalised, given the enormous variation which exists in the price (and quality) of housing in different areas of the country. To a certain degree, it is not possible to overcome this problem. There are some

aspects of housing quality that are intrinsically location-specific, which make it virtually impossible to transpose a housing budget from one location to another.

The first step in preparing the BSU housing budgets involves developing a set of normative standards of housing quality. This is followed by a process of assigning housing tenure (owner; purchaser; public or private renter) to each of the 12 basic BSU household types and the preparation of a detailed housing profile for each household, based on their assumed location, the type of dwelling, its size and the overall quality of the property.

These profiles are important because they provide a backdrop to other component budgets, notably energy, household goods and services and transport, each of which is discussed in subsequent chapters.

In general, the housing profiles conform to the normative standards of housing quality, except where there are good reasons for not doing so (on behavioural grounds, for example, or because of the nature of the Australian housing stock). The next step involves determining housing costs by establishing the levels of rent for renters and mortgage arrangements for purchasers. As will become clear later, the determination of mortgage arrangements requires a number of further assumptions to be made that have a very significant impact on the housing budgets.

The final step in the process involves the specification of additional housing costs (e.g. rates, water charges, insurance, and repairs and maintenance) that are associated with owning, buying or renting a property and then aggregating up to obtain the total housing budget.

The Quality and Utilisation of Housing

The quality of housing is to some extent subjective, reflecting not only the physical features and construction of the dwelling but also the social evaluation of its location and utilisation. The quality of housing in Australia has, until recently, been difficult to assess in any quantitative way due to lack of appropriate statistical data (King, 1994). However, data collected by ABS in the 1994 *Housing Survey*, together with research promoted by the National Housing Strategy (NHS), have begun to provide a clearer picture of the physical condition, age and distribution of the Australian housing stock (NHS, 1991).

If the housing budgets are to reflect the realities of Australian housing conditions, they need to reflect this picture. Standards of construction and fitness for human habitation are set and maintained through various State and local government regulations. In New South Wales, for example, they include those laid out in the *Local Government Housing Act 1987*, including Ordinance 70 and Section 7, those contained in appropriate sections of the *Local Government Act 1993 and Regulations, the Environment Planning & Assessment Act 1979*.

The quality of rental properties is also required to meet the standards set out in the *Residential Tenancies Act 1987* which states that rented accommodation must be reasonably clean and fit to live in, and maintained by the landlord in a reasonable state of repair having regard to the age and future life of the premises and the rent payable.

These regulations are intended to ensure that the physical features of a dwelling meet certain minimum standards. Clearly, it is essential that the BSU housing budgets also meet these standards. Another important dimension of housing quality relates to the *utilisation* of the dwelling, as opposed to its physical characteristics. In essence, what is regarded as an appropriate standard of housing quality is generally assessed in relation to a measure of

housing utilisation or overcrowding which is made operational by comparing the size and characteristics of the dwelling with the size and type of household that resides in it.

As Doyal and Gough (1991) have argued:

'...dwellings which are overcrowded can...undermine the health of their occupants. Overcrowding involves the experience of excessive social demands and lack of privacy and has been linked to physical and psychological withdrawal and a general feeling of debilitation...The weight of evidence from different societies now suggests that overcrowding contributes, among other things, to respiratory illness, slow physical and cognitive development in children, and stress and depression in adults—all factors contributing to physical illness and impaired autonomy.' (Doyal and Gough, 1991, p. 197)

Despite this apparent acceptance that overcrowding is a key indicator of housing quality (or rather the lack of it) there is currently no *single* standard measure of housing appropriateness or utilisation that has received widespread endorsement in Australia.

The standard which comes closest in this regard is the Canadian National Occupancy Standard, which has been reviewed by the National Housing Strategy (1991) and used in work on housing need undertaken by the Australian Institute for Health and Welfare (AIHW, 1995). King (1994), in discussing indicators of housing stress, of which utilisation is one factor, also gives consideration to the Canadian approach and suggests an extension of it be used as the basis for establishing an Australian standard.

The ABS has recently decided to use the Canadian model for measuring utilisation in its *Housing Survey*, on the grounds that the Canadian measure conforms reasonably well to social norms in Australia (ABS, 1995c, 1996a). The Canadian standard of housing appropriateness is sensitive to both household size and composition and assesses the requirements of a household by specifying the number of bedrooms it needs.

The precise requirements of the Canadian housing occupancy standards are that:

- there should be no more than two persons per bedroom;
- children under five years old, of different sexes, may share a bedroom;
- children five years or older of opposite sex, should not share a bedroom;
- children under 18 years old, of the same sex, may share a bedroom;
- household members 18 years or older should have a separate room; and
- parents and couples should have a separate bedroom.

In practice, several problems were encountered when trying to apply the Canadian standards to Australia. The first of these is that it is not clear what level of housing adequacy (low cost or modest but adequate) the Canadian standards are intended to describe. Furthermore, the Canadian standards at times run counter to the relatively high housing standards actually experienced in Australia.

For example, the Canadian standards imply that both a single adult and a childless couple require only a one-bedroom dwelling, and while there exist some Australian apartments with only a single bedroom, there are virtually no one-bedroom houses. This reflects the fact that the nature of the housing stock can only be adjusted rather slowly as new structures are built or existing ones modified. When the structure of families or households is changing rapidly (as

it has been in recent times in Australia) a gap appears between housing *need* and the *ability* of the existing housing stock to meet that need.

In addition, the actual housing choices of most people are made on the basis of long-term planning decisions. For example, many younger single Australians share housing so as to reduce their housing costs, thus enabling them to more easily save a deposit for eventually purchasing a home.

Similarly, many younger Australian couples without children purchase homes with more bedrooms than they need currently, in anticipation of having a family in future. In addition, older Australians, whose children have grown up and left home are generally very reluctant to move to a smaller house, preferring instead to remain where they are for as long as they can.

These examples illustrate that there are many instances where the Canadian standards are exceeded in Australia, in effect by underutilisation of housing. Because housing represents such a large item in most household budgets, in conjunction with the fact that housing need varies over the life course, it would be unrealistic to expect people to change their housing whenever their needs change. Instead, housing choices are made with a larger time horizon in mind.

This discussion highlights the fact that attempting to use the Canadian standard to derive a housing budget for Australia is fraught with difficulty. Although budget standards are explicitly normative, they also need to be relevant to the social circumstances in which they are to be applied. For this reason, as explained earlier, it is sometimes necessary to revise a budget standard in the light of behavioural information and prevailing circumstances. In this way, the standards can draw upon information relating both to 'what should be' (the normative element) and 'what is' (the behavioural and prevailing circumstance elements).

Given that some of those who have assessed the relevance of the Canadian occupancy standard to Australian conditions (e.g. King, 1994) have seen a need for modification, there is nothing inherently problematic about introducing such modification in some cases. This has been done, in ways that are spelt out in detail later, at which point the precise reasons for so doing are also explained.

Assigning Tenure

Statistical information presented in Appendix 3.A describes the current Australian housing situation, in which around 70 per cent of all households either own or are purchasing their homes. Around 20 per cent of households are renting privately and the public rental sector accounts for less than 10 per cent (Table 3.A.1). In total, 60 per cent of persons aged 15 or over live in homes that are either owned or being purchased, with this figure rising with age and exceeding 80 per cent by the time people reach age 45 (Table 3.A.4).

Home ownership or purchase is lowest among sole parents (particularly sole mothers) and men living alone (Table 3.A.2), while even among renters, separate houses are the most popular type of dwelling (Table 3.A.3). In Sydney, separate houses are the most popular type of dwelling for public renters while flats, units and apartments are the most popular for private renters (Table 3.A.3)

Table 3.1 shows the tenures that have been assumed to apply to BSU households at both the low cost and modest but adequate standards. The combinations of tenure type shown in Table

Table 3.1: Assigning Housing Tenure to Household Types

Household Type	Modest but Adequate	Low Cost
H ₁ : Single female	Purchaser Private Renter	Private Renter
H ₂ : Couple	Purchasers Private Renter	Private Renter
H ₃ : Couple. Girl 6, Boy 14	Purchasers Private Renter	Private Renter
H ₄ : Single female Girl 6	Purchaser Private Renter	Private Renter Public Renter
H ₅ : Aged female	Outright Owner	Outright Owner Public Renter
H ₆ : Aged couple	Outright Owner	Outright Owner Public Renter
H ₇ : Couple	Purchasers Private Renter	Private Renter
H ₇₁ : Couple Girl 6 years	not applicable ^(a)	Private Renter Public Renter
H ₇₂ : Couple Girl 6 years	Purchasers Private Renter	Private Renter
H ₇₃ : Couple Girl 6 years	not applicable ^(a)	Private Renter
H ₇₄ : Couple Girl 6 years	Purchasers Private Renter	not applicable ^(a)
H ₈ : Couple Boy 14 years	Purchasers Private Renter	Private Renter
H ₉ : Couple Girl 3 years	Purchasers Private Renter	Private Renter
H ₁₀ : Couple Girls 3 & 6 years, Boy 14 years	Purchasers Private Renter	Private Renter
H ₁₁ : Couple Girls 3 & 6 years, Boys 10 & 14 years	Purchasers Private Renter	Private Renter
H ₁₂ : Single female Girl 6 years, boy 10 years	Purchasers Private Renter	Private Renter Public Renter

Note: (a) Budgets have not been prepared for these household types since doing so either duplicates calculations obtainable in other household combinations or makes no contribution to calculating costs of children, lone parenthood, work and job search.

3. 1. are designed to reflect the actual housing circumstances of a broad range of Australian households and to capture different stages of the life cycle. They are also intended to reflect the situations likely to be experienced by each specific BSU household type, which means that not every possible household type/tenure combination is covered.

Finally, and most importantly, the tenure combinations have been selected so as to enable comparisons across both tenure types for a given household and across household types in a given tenure. In this way, the budgets can be used to inform estimates of how costs vary with household size and housing tenure at a *given* standard of living.

At the modest but adequate level, Table 3.1 indicates that both purchasing and private rental tenures have been assumed for all household types except those containing older Australians over age pension age. This reflects the fact that although home ownership rates in Australia are relatively high overall, a substantial proportion of Australians in every State and Territory also live in rented accommodation (see Tables 3.A.1 and 3.A.4 in Appendix 3.A).

In relation to household types H₅ and H₆, which contain people over age pension age, it has been assumed that they are either outright owners (at both the modest but adequate and low cost standards) or are public renters (at the low cost standard), reflecting the available evidence that these are the most common forms of tenure among households at this stage of the life cycle (ABS, 1995a; see also the statistical material presented in Appendix 3.A).

Other than outright ownership for the older households, the tenure combinations in Table 3.1 imply that there is no provision for owner-occupation at the low cost standard. Table 3.1 also indicates that (aside from the exceptions in the case of older households just referred to), private rental tenure has been assigned at both the modest but adequate and low cost levels. Public rental tenure has been excluded from the modest but adequate level on the grounds that eligibility for public housing is determined in part by an income limit which would be exceeded by those at this level.¹

The demographic and socio-economic composition of those in public housing varies by State, but the newly-accommodated applicants are increasingly single people and sole parent families (Appendix 3.B; Table 3.B.1). The proportion of low income households in public housing is also high, with many tenants reliant on some form of government benefit (Table 3.B.2).

Research undertaken by the Australian Institute of Health and Welfare (AIHW, 1994) indicates that the trend toward low income tenants in public housing is increasing and there is a growing trend towards life long tenure among those who gain access to public housing (New South Wales Department of Housing, 1994-95 *Annual Report*). This explains why the two sole parent households and the two older households at the low cost level, as well as one-child couple households in which both adults are unemployed, have all been assigned public housing tenures. All other tenure assignments at the low cost level are as renters in the private rental sector.

Housing Profiles

As noted earlier, there are good reasons why the housing budgets should be based on the actual housing costs experienced by those residing in specific locations. Development of the housing profiles which underpin the BSU housing budgets involved giving detailed consideration not only to issues of location, but also to those associated with the type, size and quality of dwellings that are occupied.

¹ Within the limitations of this study, it is not possible to represent the case of households who, because of their low standard of living at the time, were eligible for public housing but who since may have increased their standard to a modest but adequate level.

One implication of adopting this approach is that the choice of location can influence the decisions made regarding the actual availability of housing of the required type, size and quality. If, for example, a location is selected which contains very few houses of a particular form (e.g. one-bedroom units or three-bedroom detached homes) then it becomes very difficult to determine the costs (either purchase price or rental) of these kinds of houses in that particular area. Where particular sectors of the housing market in the chosen location are very thin, estimates of house prices or rents will be based on a small sample and may thus be susceptible to large sampling error.

Having decided to develop the housing budgets in a specific location, the next issue that arises concerns which location should be chosen? As there is no single 'best' answer to this question on conceptual grounds, it was decided to choose an option which was both convenient but at the same time consistent with the requirements of representativeness.

As the BSU is itself located in Sydney, it seemed appropriate that the budget standards themselves be derived for that city. No single area of Sydney can be described as being 'representative' of the metropolitan area as a whole, although it is possible to identify many suburbs that clearly do *not* fit this criterion. A suburb was required that could fit the description of being as 'typical' of the entire metropolitan area as was feasible given the aims of the research and the constraints upon it.²

The suburb chosen for this purpose was the Hurstville Local Government Area (LGA), situated approximately 13 kilometres south of Sydney's central business district (CBD).³ The Hurstville LGA was chosen on the basis that the aggregate socioeconomic characteristic of the area—in terms of the age distribution of its population, the proportions of different family types, the labour force status of its inhabitants, the level and distribution of household income in the area, the pattern of motor vehicle ownership and, most importantly, its housing characteristics—is reasonably representative of the Greater Sydney region as a whole.

The extent of this similarity is illustrated in Table 3.C.I in Appendix 3.C, which utilises data from the 1991 Census to compare the socio-economic profile of the Hurstville LGA with that of the entire Sydney metropolitan area. There are, of course, some differences shown in these statistics, but overall the comparisons reveal that the population of Hurstville is somewhat older than Sydney as a whole, with almost 16 per cent of the population over 65 compared with a Sydney-wide average of 11.5 per cent. In terms of housing tenure, Hurstville has fewer renters (public and private) and correspondingly more purchasers and considerably more outright owners (partly a reflection of its older population profile).

Table 3.2 indicates that rents for one- and two-bedroom units in Hurstville lie well below the median for the Sydney Statistical Division, and have done so consistently throughout the 1990s. For example the median weekly rents for two-bedroom units in the March quarter of 1997 were \$180 and \$205 for Hurstville and all of Sydney, respectively.

² An alternative approach would have involved selecting an area in Sydney that was more representative of Australia as a whole. This approach has its merits but also raises some difficult practical difficulties in identifying such a location and was therefore not pursued.

³ Early in the course of the research, the BSU research team visited the Hurstville Council Chambers to explain the project to the Mayor and some of the Council staff.

Table 3.2: Comparison of Weekly Rents for Flats/Units in Hurstville and the Rest of the Sydney Statistical Division (\$)

Local Government Area	March Quarter Rent (\$ per week)			
	1992	1994	1996	1997
<i>A: One-bedroom</i>				
Wyong	88	85	92	95
Hurstville	125	130	135	148
Sydney	220	225	260	270
Median	140	140	185	175
<i>B: Two-bedroom</i>				
Wyong	120	120	125	130
Hurstville	155	155	175	180
Sydney	270	300	340	350
Median	170	170	190	205

Source: NSW Department of Urban Affairs and Planning, *The Rent Report* (various issues).

Table 3.2 also compares Hurstville rents with those of the cheapest and most expensive LGAs (Wyong and Sydney, respectively) in terms of the levels of rents for units. Hurstville rents are closer to those of the cheapest LGA (Wyong) than they are to those of the most expensive (Sydney).

These comparisons indicate that rent levels in Hurstville are fairly close (though below) to median rents in Sydney as a whole, a finding which is broadly consistent with the Census data on rent levels presented in Table 3.C. 1.

In relation to labour force status, Table 3.C. 1 also indicates that the unemployment rate in Hurstville in 1991 was relatively low overall, although the occupational profile of those in work is very similar to that for the city as a whole. Finally, somewhat fewer Hurstville residents travel to work by private vehicle, a reflection of the good public transport facilities in the area (particularly the rail link to the CBD).

Having described the broad socio-economic profile of the Hurstville LGA, it remains to consider housing features and costs in the Hurstville LGA in more detail. The Hurstville LGA covers 11 separate suburbs, none of which are homogeneous in geography, demography, housing affordability or the availability of services and amenities. Some of these differences are of little direct significance in the context of developing the BSU housing budget, but will be important for other component budgets such as transport, leisure and household goods and services.⁴

⁴ It should be noted that several of the other component budgets depend on the assumption that the household lives within the Hurstville LGA. However, some aspects of the budget standards are based on data for Sydney as a whole, others for the State of New South Wales, and yet others for the whole of Australia. In general, however, the approach adopted has been to use data for the Hurstville LGA whenever the specifics of location were considered important, and where the required data were available at that level of disaggregation.

However, in relation to the housing budget itself, it is important to decide where in the entire LGA the houses are to be located. Because the housing needs of each of the BSU households vary, it was necessary to locate each in a different district within the LGA in order to ensure that there actually exist houses in the assigned suburb which meet the needs of specific household types as they relate to the occupancy standards discussed earlier.⁵

In order to guarantee this, postcode-level data from the *C-Data* derived files from the 1991 Census were used in conjunction with information about the availability of services and amenities within the area, to assign a more precise location to each household type and tenure.⁶

The budget standards methodology assigns housing to each household according to a set of independently determined normative (occupancy) standards of housing adequacy. These standards have already been described. In practical terms, as explained earlier, the type and size of houses in which households are accommodated are, to some extent, constrained by the choice of location, as well as by behavioural factors. A balance has to be struck between the normative judgements which inform the standards, the actual housing choices made by Australian households, and what kinds of houses actually exist in the chosen area.

In reaching a final determination on this matter, information provided by the NSW Valuer-General's Office has been of assistance. That information describes a typically 'representative cottage' for the Hurstville area as being built in 1925, with double-brick exterior walls, containing three bedrooms and positioned on a lot size of approximately 12 metres by 36 metres (NSW Valuer General's Office, 1995).

Purchasers and Outright Owners

In reviewing town planning and building regulations and controls, as well as in studying the architectural history of the Hurstville area, the 'Californian-type' single-storey, detached house was found to be 'typical', although there are also large numbers of detached houses built in the post-war period.⁷

The representative three-bedroom house described above (or its post-war equivalent) was selected as the dwelling for the owner-occupier, couple households at the modest but adequate standard (i.e. for the household types H₃, H₇, H₈, H₉, H₁₀ and H₁₁ listed in Table 3.1). Those households who are assumed to own their house outright (at either the modest but adequate or

⁵ Households at both the modest but adequate and low cost standards have been located within the Hurstville LGA, though in suburbs that contain houses that are consistent with the specifications of each separate standard. An alternative approach, involving locating the low cost households in a cheaper area altogether, was rejected on the grounds of practicality and time.

⁶ The summary information extracted from the relevant Census data for the suburbs within the Hurstville LGA presented in Table 3.C.1 in Appendix 3.C was provided by Professor Peter McDonald, a member of the BSU Steering Committee.

⁷ In general, the overwhelming majority (79.4 per cent) of the Australian housing stock takes the form of separate dwellings (detached houses), with flats, home units and apartments accounting for 12.5 per cent and semi-detached, row or terraced houses, or town houses accounting for the remaining 7.9 per cent of the total stock. Among separate houses, 61.1 per cent are three-bedroom detached houses, while nearly half (48.5 per cent) of all Australian dwellings are three-bedroom detached houses. (Further information on the relationship between the number of bedrooms and the type of dwelling in Australia is set out in Appendix 3.D).

low cost standards)—the 70-year-old single female and the aged couple (household types H₅ and H₆)—were also assigned this representative three-bedroom detached house.

For other owner-occupiers at the modest but adequate standard, some of the assumed dwellings exceed the Canadian housing norms described earlier. For example, the 35-year-old single female (household type H₁) is assumed to be purchasing a two-bedroom home unit, while the couple with no children (household type H₂) is assumed to be paying off the mortgage on a two-bedroom pre-war detached house.

In both cases, this places each household above the housing occupancy standards by allowing each an extra bedroom. The justification for this, as explained earlier, was partly practical and partly behavioural. It was decided to assign the single female (household type H₁) a two-bedroom unit so that her circumstances and costs can be more readily and directly compared with those of the sole parent with one child (household type H₄), but also because two-bedroom home units are the most common units in Hurstville (where 75 per cent of all units, flats and apartments have two or more bedrooms) and, according to real estate agents in the area, is the type of home unit most in demand among people in this category living in the area.

Similarly, the childless couple (household type H₂) was assigned an additional bedroom, not only because of the lack of one-bedroom houses in Hurstville, but also because this is the smallest home that Australian couples actually do purchase (partly in anticipation of having a family).

In Australia, there has been a cultural expectation that when people marry they should work towards owning their home and where possible this should be a house rather than a home unit. The couple consisting of a 40-year-old man and a 35-year-old woman with no children (household type H₂) were therefore assumed to be purchasing a two-bedroom detached house.⁸

While it is difficult to avoid making judgements that are to some extent arbitrary, assigning at least one BSU household type to a two-bedroom detached house has the advantage of making the effects of these decisions more transparent. Since the costs of purchasing a house depend significantly upon the characteristics of the dwelling selected, having determined the costs of both a two-bedroom detached house and a three-bedroom detached house has the advantage that it provides the capacity to substitute one for the other and judge what effect this has on the overall housing budget.⁹

The couples with one child of varying ages and gender (household types H₇, H₈, and H₉) who are purchasers have been assumed to be purchasing a three-bedroom detached house at the modest but adequate standard, which again places them above the housing occupancy norms. The decision to assign an extra bedroom again follows from the evidence of actual behaviour and follows the advice provided by real estate agents.¹⁰

⁸ In fact, the evidence indicates that a three-bedroom detached house better reflects the actual housing choices of households of this type.

⁹ These decisions illustrate the extent to which, in practice, the BSU housing budgets actually incorporate rather little of the Canadian housing occupancy norms which were the starting point of the research.

¹⁰ Table 3.A.2 in Appendix 3.A shows that such households are typically purchasers or owners, while Table 3.D. 1 in Appendix 3-D shows that over 70 per cent of the housing stock in Australia has three or more bedrooms.

Even so, it is possible to artificially adjust for the effect of this implied under-occupancy by substituting the costs of the three-bedroom detached house by those for the two-bedroom detached house calculated for household type H₂.

The older owner-occupiers (household types H₅ and H₆) at both the modest but adequate and low cost standards are also assumed to occupy a three-bedroom detached house. This again exceeds the occupancy norms, but is justified on behavioural grounds. The vast majority of older Australians continue to live in the same house even after their children leave home to start their own independent lives.

In 1991, for example, over 70 per cent of those aged 65 to 79 years in NSW lived in separate houses, while around 80 per cent of those aged 65 years and over lived in a home they owned or were purchasing, and most single aged people continue to remain in their own homes (ABS, 1995f).

While some may consider that there is under-utilisation (or under-occupancy) of housing in these situations, and that moving to a smaller dwelling and re-investing any surplus makes good economic sense, older Australians have largely resisted attempts to induce them to pursue such avenues. For this reason, the view was taken that it was better to leave older people in the homes they purchased earlier, rather than to construct housing budgets on the assumption that they have sold up and moved to a smaller dwelling in their later years.

It is worth noting, however, that since the home is owned outright, re-locating to one of a smaller size would have only small effects on their current housing expenditures (through the impact on the costs of insurance, home maintenance and repairs) and thus would impact only marginally on the derived housing budgets.

It is important to emphasise that these deviations from the housing norms in the case of several purchaser households occur only at the modest but adequate standard. At the low cost standard, the housing occupancy norms have been strictly applied in all cases, despite the practical difficulties to which this gave rise in some instances. It follows from this that the low cost housing budgets reflect what is required to attain the Canadian housing occupancy standards, but no more—even though the great majority of Australians do in fact choose housing that is above the standards implied by the Canadian norms.

Private Renters

The private rental section of the Australian housing market has been increasing in size since the 1960s, both in terms of the number of dwellings available for rent and the number of households who are renting (Paris, 1993). Although high-density construction, which took off in the 1960s, was initially intended primarily for renting purposes, this proved to be a passing phase. In actual fact, very little construction in Australia has been designed specifically for rental purposes, with the result that a great variety of dwellings are now available for rent.

Since flats, units and apartments are the most popular type of dwelling for private renters in Sydney, private renter households at both the modest but adequate and low cost standards have been assumed to be renting units. The size of these units has been adjusted to meet each household's housing needs (as specified in the occupancy standards), and on the basis of available data and knowledge of the Hurstville area, these units are assumed to be about 25 years old.

Most private rental properties in Australia are unfurnished, but come with all fittings and fixtures, including a fitted kitchen and a stove, and it has been assumed that this applies to the households in private rental accommodation.¹¹

As noted earlier, it is important to ensure that the accommodation assigned to each dwelling meets all relevant local or State government health and safety requirements. This is one of the ways in which the normative judgements that underlie the budget standards can be made to conform to minimum standards that already exist in the Australian community. All of the assumed forms of housing accommodation meet these government-sanctioned minimum standards.

Furthermore, it is assumed that all private renter households have signed a rental agreement with a landlord, either through a real estate agent, or directly, and lodged a bond with the NSW Rental Bond Board.¹² This agreement confers certain rights and is another element of the community endorsed minimum standards the budgets must meet.

Public Tenants

Public tenants throughout Australia are housed in a dispersed and varied range of housing. While the bulk of public housing takes the form of detached dwellings, there are now also a considerable number of medium-density housing estates in what were originally outer suburbs in the 1950s, 1960s and 1970s (Industry Commission, 1993).

The largest concentration of public housing in the Hurstville LGA is the Riverwood estate, which was built in the 1950s and consists of over 1,200 dwellings which are a mixture of bedsits, and one-, two- and three-bedroom 'walk-ups' (i.e. blocks of units that are not high-rise buildings). There are, however, also two blocks of high-rise units and a few dozen three-bedroom cottages on the estate.¹³

Those BSU household types that have been assigned to public rental tenure (apart from the aged), are assumed to be located on the Riverwood estate. The lone mother with a six-year-old girl (household type H₄) is housed in a two-bedroom unit; the unemployed couple with a six-year-old daughter (household type H₇) are housed in a two-bedroom unit; and the lone mother with two children, a six-year-old girl and a 10-year-old boy, (household type H12) have been housed in a three-bedroom unit.¹⁴

¹¹ These assumptions have implications for the household goods and services budget described in Chapter 7.

¹² Unpublished data from the latest *Australian Housing Survey* (ABS, 1994) shows that the great majority of private renters in Sydney have lodged a bond with the Rental Bond Board.

¹³ The Riverwood estate is currently being upgraded as part of the NSW Department of Housing's 10 year Estates Improvement Program.

¹⁴ It is worth noting at this stage that adherence to the housing occupancy standards means that a couple with one child requires two-bedroomed accommodation, as does a sole parent with one child. Given that housing costs represent a substantial proportion of the overall budgets, these similarities have important implications when the budgets are used to derive estimates of the costs of children, of additional adults and of sole parenthood (see Chapter 14). One consequence is, for example, to inflate the 'cost' of the first child in a household relative to the 'cost' of the second adult in a couple. Another is to reduce the 'cost' of the sole parenthood relative to that of couples with the same number of children.

The NSW Department of Housing provides special housing specifically for the aged, disabled and other special needs groups. Recently, some dwellings in Hurstville have been renovated for pensioner use. In developing the BSU housing budgets, it has been assumed that the aged households who are public tenants—the single 70-year-old female and the 70-year-old couple—are both accommodated in these dwellings.

The housing profiles allocated to each household type at both standards are summarised in Table 3.3. It should be noted that, in contrast to the assumptions made regarding homeowners and home purchasers, the housing circumstances of all of the renter households in Table 3.3 conform to the housing occupancy standards in all cases.

This is because for those households with two or more children (household types H₃, H10, H11 and H12), the assumed characteristics of their children (in terms of age and gender) are such that they can be accommodated in three-bedroom dwellings and still satisfy the occupancy norms, even though there are some cases (e.g. household types H₁₀ and H11) where children are required to share a bedroom.¹⁵

Overall Summary of the Housing Profiles

Using information about the stock of the available houses in the Hurstville LGA, a study of council records, and of relevant building plans, and following the advice provided by local real estate agents, a series of *detailed housing profiles* has been drawn up.

These supplement the information on the type of dwelling (whether it is a detached house, unit or a public housing 'walk-up' flat) and the size of the dwelling (in terms of the number of bedrooms in each), providing details of each dwelling's age and construction, the total number of rooms it contains, the dimensions of each bedroom, the nature of all fixtures and amenities, and the dwelling's assumed geographic location within the Hurstville LGA.

The details of these features are important for determining the purchase price of the house (or, where relevant, the level of rent) as well as for establishing the costs of property insurance and of maintenance. Some of these details are important because they feed into other areas of the budget standards, especially into the household goods and services budget (Chapter 7).

As noted earlier, in Australia there are no separate sectors of the private rental housing market specifically designated for low-, medium- or high-rent accommodation. This means that the type of dwelling leased by private renters at both the modest but adequate and low cost standards will not necessarily vary in (physical) size or even locality.

However, households at the low cost standard who rent privately are all assumed to be renting dwellings which, while meeting all the necessary health, safety and building standards, are in poorer condition than those dwellings assigned to private renter households at the modest but adequate standard.

The resulting detailed housing profiles are summarised in Table 3.4.

¹⁵

Feedback received from the BSU focus group discussions (summarised in Chapter 13) suggested that the housing occupancy standards may be somewhat overly strict in requiring all children over the age of five to have a separate bedroom. Participants saw this requirement as desirable, but did not regard it as unreasonable that children might be expected to share a bedroom up to the age of 10.

Table 3.3: Assigning Tenure to Budget Standards Unit Household Types

Household Type	Modest but Adequate		Low Cost	
	Tenure(s)	House Type	Tenure(s)	House Type
H1: Single female—employed full-time	Private Renter Purchaser	1 bedroom unit 2 bedroom unit	Private Renter	1 bedroom unit
H ₂ : Couple—both employed full-time	Purchasers Private Renter	2 bedroom detached house 1 bedroom unit	Private Renter	1 bedroom unit
H ₃ : Couple—both employed full-time. girl 6 years, boy 14 years	Purchasers Private Renter	3 bedroom detached house 3 bedroom unit	Private Renter	3 bedroom unit
H ₄ : Single female — employed full-time, girl 6 years	Purchaser Private Renter	2 bedroom pre-war detached house 2 bedroom unit	Private Renter Public Renter	2 bedroom unit 2 bedroom walk up
H ₅ : Aged female (retired from labour force)	Outright Owner	3 bedroom detached house	Outright Owner Public Renter	3 bedroom pre-war detached house pensioner housing
H ₆ : Aged couple (both retired from labour force)	Outright Owner	3 bedroom detached house	Outright Owner Public Renter	3 bedroom pre-war detached house pensioner housing
H ₇ : Couple—both employed full-time girl 6 years	Purchasers Private Renter	3 bedroom detached house 2 bedroom unit	Private Renter	2 bedroom unit
H ₇₁ : Couple—both unemployed girl 6 years	-	-	Private Renter Public Renter	2 bedroom unit 2 bedroom unit
H ₇₂ : Couple—male employed full-time, female not in labour force, girl 6 years	Purchasers Private Renter	3 bedroom detached house 2 bedroom unit	Private Renter	2 bedroom unit
H ₇₃ : Couple—male employed full-time, female unemployed, girl 6 years	-	-	Private Renter	2 bedroom unit
H ₇₄ : Couple—male employed full-time. female employed 15 hrs per wk, girl 6 years	Purchasers Private Renter	3 bedroom detached house 2 bedroom unit	Private Renter	2 bedroom unit
H ₈ : Couple — both employed full-time, child 14 years	Purchasers Private Renter	3 bedroom detached house 2 bedroom unit	Private Renter	2 bedroom unit
H ₉ : Couple—both employed full-time, child 3 years	Purchasers Private Renter	3 bedroom detached house 2 bedroom unit	Private Renter	2 bedroom room unit
H ₁₀ : Couple—both employed full-time, children aged 3, 6 & 14 years	Purchasers Private Renter	3 bedroom detached house 3 bedroom unit	Not applicable	-
H ₁₁ : Couple — both employed full-time. children aged 3, 6, 10 & 14 years	Purchasers Private Renter	3 bed detached house 3 bedroom unit	Not applicable	-
H ₁₂ : Single female—employed full-time, children aged 6 & 10 years	Purchasers Private Renter	2 bedroom pre-war detached house 2 bedroom unit	Private Renter Public Renter	2 bedroom unit 3 bedroom unit

Table 3.4: Detailed BSU Housing Profiles

<i>Dwellings Being Purchased (Modest but Adequate only)</i>	<i>Private Rental Accommodation</i>	<i>Public Rental Accommodation (Low Cost only)</i>
<p>2 bedroom unit (built 1960s/1970s) bedroom 1: 3.70m x 3.50m bedroom 2: 2.7m x 3.60m <i>Fixtures:</i> fitted kitchen, cooker, built-in robes <i>Amenities:</i> internal laundry, lock up garage <i>Location:</i> Hurstville <i>Assigned to household type H1</i></p>	<p>1 bedroom unit (built 1960s/1970s) bedroom including en suite: 4.26m x 5m <i>Fixtures:</i> fitted kitchen, cooker, built-in robes <i>Amenities:</i> outside laundry <i>Location:</i> Mortdale <i>Assigned to households:</i> H1 and H2</p>	<p>2 bedroom walk up (i.e. non high-rise unit) recently renovated kitchen and bathroom 3 rooms(a) Bedroom 1: 4m x 3.25m Bedroom 2: 3.65m x 2.70m <i>Fixtures:</i> fitted kitchen, linen and laundry cabinets <i>Amenities:</i> stove, combined bathroom/laundry <i>Location:</i> Riverwood <i>Assigned to household:</i> H4</p>
<p>2 bedroom detached Californian style bungalow built circa 1925; 4 room^(a), double brick, tiled roof bedroom 1: 12'6" x 12ft bedroom 2: 10ft x 10ft <i>Amenities:</i> separate bathroom and toilet, separate laundry; Carport on site, gardens front & back, verandah <i>Location:</i> Hurstville <i>Assigned to households:</i> H2 and H4</p>	<p>2 bedroom unit (built 1960s/1970s) bedroom 1: 3.70m x 3.50m bedroom 2: 2.7m x 3.60m <i>Fixtures:</i> fitted kitchen, cooker, built-in robes <i>Amenities:</i> internal laundry, lock up garage <i>Location:</i> Hurstville <i>Assigned to households:</i> H4, H7, H8 and H₉</p>	<p>3 bedroom walk up (recently renovated kitchen and bathroom) 4 rooms (a) Bedroom 1: 4m x 3m Bedroom 2: 3.65 x 2.7m Bedroom 3: 3.2m x 2.5m <i>Fixtures:</i> fitted kitchen, linen and laundry cabinets <i>Amenities:</i> stove, combined bathroom/laundry <i>Location:</i> Riverwood <i>Assigned to household:</i> H12</p>

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(continued)

Table 3. 4: Detailed BSU Housing Profiles (Continued)

<i>Dwellings Being Purchased (Modest but Adequate only)</i>	<i>Private Rental Accommodation</i>	<i>Public Rental Accommodation (Low Cost only)</i>
<p>3 bedroom post-war detached house built circa 1925, 5 room^(a), single brick, tiled roof Bedroom 1: 17ft x 13ft Bedroom 2: 8ft x 15ft Bedroom 3: 8ft x 13ft <i>Amenities:</i> separate shower unit in bathroom, separate laundry, carport on site, garden, terrace, <i>Location:</i> Beverly Hills/Narwee <i>Assigned to households:</i> H3, H7, H8, H9, H10, H11, H12</p>	<p>3 bedroom unit (built 1970s) bedroom 1: 4.35m x 3m bedroom 2: 3.8m x 2.65m bedroom 3: 3.25m x 2.05m <i>Fixtures:</i> fitted kitchen, cooker, built-in robes <i>Amenities:</i> internal laundry, lock up garage <i>Location:</i> Hurstville <i>Assigned to households:</i> H10 and H11</p>	<p><i>Pensioner Housing (one person)</i> 2 rooms(a) bedroom: 3.55m² x 3.97 m² Combined shower room/laundry fitted kitchen, linen cupboard, stove, washing machine <i>Location:</i> Hurstville <i>Assigned to household:</i> H5</p>
<p><i>Owned Outright (Modest but Adequate and Low Cost)</i> 3 bedroom detached Californian style bungalow built circa 1925, 5 room(a) double brick, tiled roof Bedroom 1: 14ft x 12ft Bedroom 2: 12ft x 10ft Bedroom 3: 10ft x 9ft <i>Amenities:</i> separate shower unit in bathroom, separate laundry, carport on site, garden, terrace, <i>Location:</i> Beverly Hills/Narwee <i>Assigned to households:</i> H5 and H6</p>		<p><i>Pensioner Housing(Couple household)</i> 2 rooms(a) bedroom: 4.26m² x 3.97m² Combined shower room/laundry fitted kitchen, linen cupboard, stove, washing machine <i>Location:</i> Hurstville <i>Assigned to household:</i> H6</p>

Note: (a) The number of rooms excludes the bathroom, toilet, kitchen and laundry.

3. 3 Establishing Housing Costs for the Different Tenure Categories

The difficulties inherent in establishing a representative level of housing costs for purchasers have already been discussed. In light of these difficulties, the approach used to develop housing costs for purchasers has involved specifying the detailed circumstances of home buyers and deriving the costs that are relevant to those. This approach means that mortgage costs—the largest component of housing costs for most purchasers, and the largest single item in many household budgets—only apply to the specific circumstances determined by the underlying mortgage assumptions.

This creates great difficulty in claiming that mortgage costs—and hence the housing budgets of the BSU purchaser households—are generally representative, a feature which explains why housing has been excluded from many overseas attempts to develop a budget standard. The problem is, of course, that the exclusion of housing costs also makes the budget standards less relevant to the circumstances and budgets of actual households. This may be less of a problem in countries where home ownership rates are lower than in Australia, but it is not a realistic option for a nation where home ownership remains the main goal of the vast majority of people.

The BSU response to these problems has involved including housing costs for purchasers into the budgets (mainly for illustrative purposes, given their specificity) but to develop a simple model which allows the key parameters of the model to be varied. In this way, it is possible to gain an indication of how the purchaser's housing budgets vary as the assumptions made about their mortgage details are changed. Further details of the approach (including a discussion of its strengths and limitations) are presented in Section 3.4 below.

The difficulties associated with deriving a representative housing budget appear, on the face of it, to be less serious when it comes to those assumed to be renting in the private sector. However, although it is in principle relatively straightforward to derive a representative rental estimate given the details of location and housing profile, the resulting estimates are also specific to those circumstances.

The BSU housing budgets for private renters thus apply only to those who are renting in the Hurstville LGA. Again, the method which has been applied to derive the private renter housing budgets for Hurstville can be applied elsewhere, but it is likely to produce different results—possibly very different results.

It is also important to note that the high rates of home ownership mean that, as already observed, the private rental market is rather small which implies that observed rents may diverge from the rents that would emerge if the rental sector were larger and, as a result, more competitive. There are, therefore, good reasons for being somewhat cautious in the interpretation of the housing budget estimates for renters also.

Nevertheless, because private rents are market-determined, more confidence can be placed on these than on purchaser housing costs which depend upon a very specific set of assumptions. For this reason, the housing budgets derived for renter households can be regarded as a useful benchmark for evaluating the cost of accessing housing of a given quality in a given location. This view underlies the BSU housing budget and it explains why rental costs are dealt with first.

Private Tenants

Levels of rent for private tenants at the modest but adequate standard are based on the data extracted from the NSW Department of Urban Affairs and Planning's *Rent Report* which provides information on the levels of median rents (for households which have lodged a bond with the Rental Bond Board) in the Hurstville LGA in February 1997.

The level of median rent for one-bedroom units in the Hurstville LGA in the March quarter 1997 was \$148 a week; for two-bedroom units the median rent was \$180 a week. Unfortunately, the *Rent Report* does not provide corresponding data for three-bedroom units, so a level of \$230 a week was set, based on the rate quoted by real estate agents in the Hurstville LGA for a three-bedroom unit in good physical condition.

The figure of \$230 had to be adjusted downwards to reflect the fact, confirmed by data from the *Australian Housing Survey, 1994* (AHS) that rents paid directly by tenants to their landlords are somewhat lower than those paid through real estate agents, even after adjusting for differences in quality.

The final BSU figure, which needs to be a weighted average of the two figures, was reduced from \$230 to \$229.60 to reflect this, the adjustment being based on unpublished analysis of the AHS data provided by the Department of Social Security (DSS).

Another adjustment to the rents charged on rental properties reflected the fact that the Rental Bond Board data refer to the new lettings only (access rents), not to existing (sitting) rents. There are a number of reasons to expect the average value for access rents to be above the overall average of both access and sitting rents, including the fact that all rents rise over time as prices generally rise and because the rate of turnover may be higher in above-average rent properties.

In adjusting for this, the BSU was able to benefit from DSS analysis of the issue using unpublished AHS data and data from the Rental Bond Board and the Real Estate Institute of Australia. That analysis indicates that, on average, access rents for one-, two- and three-bedroom units exceeded the sitting rents by eight per cent. In the light of this, the private rent estimates described above were adjusted downwards by this amount.

Given the unique nature of housing as a commodity, the application of the housing occupancy standards, and the existence of State government rent regulations and local government building codes, there is relatively little scope to vary the quantity or quality of housing between the modest but adequate and low cost standards. Such variation as is required has been obtained by varying slightly the *quality* of housing and its *price* (though not so as to fail to comply with official housing quality regulations).

The change in housing costs when moving from the modest but adequate to the low cost standard for private renters was thus made by assuming that low cost private renters pay less in rent and in turn receive a somewhat poorer quality dwelling than those at the modest but adequate standard.

The rent payments assumed to be appropriate at the low cost standard were those applying at the *first quartile* (as opposed to the median) of the distribution of rents for one- and two-bedroom units in the Hurstville LGA, i.e. \$130 per week for one-bedroom units and \$165 per

week for two-bedroom units, adjusted downwards by eight per cent in both cases, to \$119.60 and \$151.80, respectively, to reflect the 'access rent bias' described earlier.¹⁶

The rent of the three-bedroom unit has been adjusted downward by an amount equal to the difference between the median and first quartile rents for units with two bedrooms as quoted in the *Rent Report*. Using this method, the low cost rent for a three-bedroom unit in February 1997 was equal to \$212 per week, or \$191.90 after removing the biases described earlier for the corresponding modest but adequate rental figure.

In deriving the rental component of the housing budgets, particularly at the low cost standard, account must be taken of the possibility that some low income private renters may be able to obtain assistance with their rent.

Thus, for example, the New South Wales Government operates a Rental Assistance Scheme through the Department of Housing's Immediate Housing Assistance program for those in urgent housing need.¹⁷ Eligibility for assistance under the scheme depends on income and the ability to establish an immediate need which is then met through payments determined on an individual basis. However, the BSU housing budgets for renters do not take account of this subsidy.

The Commonwealth Government provides direct financial assistance to private renters through payment of Rent Assistance which, in February 1997, was paid at a rate of 75 cents in the dollar of rent paid above the threshold amounts shown in Table 3.5, which also lists the maximum amount of Rent Assistance payable and the minimum rents paid in order to become eligible to receive the maximum rate of assistance for family types relevant to the BSU household types.¹⁸

As explained in Chapter 2, Rent Assistance itself is not included in the calculation of budget standards because it acts as a *supplement to income* rather than as an *expenditure concession*. Assistance which increases the incomes of households who satisfy certain eligibility requirements raise their ability to achieve a particular standard of living, but does not influence the *cost* of achieving a given standard and hence does not form part of a budget standard.

Public Tenants

It is clear from the earlier discussion of household types that housing budgets have been derived for public renters at the low cost level only. Currently, when an applicant for public housing is allocated a home, the level of their rent is set at the assessed market rental for the type of property and area in which it is located.

¹⁶ This method of taking rents in the first quartile has recently been employed by Renwick and Bergmann (1993) in estimating Basic Needs Budgets for single parents in the United States in 1989.

¹⁷ In New South Wales, Rental Assistance is provided to help establish or continue a private sector tenancy. It can also be provided to help in the move to more affordable housing. The most usual form of assistance is a rental bond though assistance may also be provided to meet electricity and gas connection fees and removal costs. Help with rental arrears can be provided where the applicant can stay in their current rental housing. Rental Assistance is generally available only once in any 12 month period.

¹⁸ To be eligible for Rent Assistance the applicants must be receiving a benefit, pension or Additional Family Payment from the Department of Social Security.

Table 3.5: Rental Assistance Eligibility Conditions and Payment Rates at February 1997

Family Type	Maximum Rent Assistance Payable (\$ per fortnight)	Rent Threshold Before Rent Assistance Is Paid (\$ per fortnight)	Minimum Rent Paid To Get Maximum Assistance (\$ per fortnight)
Couple—no children	70.40	116.20	210.07
Couple—one or two children	87.00	138.60	254.60
Couple—three or more children	98.40	138.60	269.80
Single—no children, living alone	74.60	71.40	170.87
Single—one or two children	87.00	93.80	299.80
Single—three or more children	98.40	93.80	225.00

Source: Department of Social Security (1997).

However, most State Housing Departments also provide Rental Rebates to the extent that (in NSW) net rental payments for public housing tenants fall between 20 per cent and 25 per cent of gross household income. Eligibility for a State Government Rebate, unlike Commonwealth Rent Assistance for private renters, is based solely on the level of household income and is independent of the level of rent actually paid.¹⁹

For the low cost public rental households, two sets of rents were calculated. The first of these was equal to the assessed market rent of the dwelling, while the second was equal to the assessed market rent net of any Rental Rebate entitlement, based on the level of gross household income. For the purposes of calculating the extent of any Rental Rebate entitlement and hence the value of net rent payable, gross household income was assumed to be composed of the relevant rate of pension plus family payment.

Market rents set by the New South Wales Department of Housing *for the accommodation assumed in constructing the BSU housing budgets* were quoted at the following rates (at February 1997 as advised by the Riverwood Office of the New South Wales Department of Housing):

- one-bedroom pensioner unit—\$105 a week;
- two-bedroom unit—\$ 135 a week; and
- three-bedroom unit—\$145 a week.

The fact that these rents are lower than those quoted above for private renters should not be taken to imply that the condition of public housing, or the amenities it provides, are in any way inferior to that of privately-rented dwellings.

Public rents may be lower for a number of reasons (including location) other than a reflection of differences in housing quality. There is also the possibility that the explicit subsidisation of public housing by the relevant authorities leads to a differential between public and private rents charged for housing of a *given* quality.

¹⁹

Since Rental Rebates directly affect the actual rents paid by eligible claimants living in public housing, it is legitimate to include them in developing housing budgets for public housing tenants.

3.4 Determining Mortgage Arrangements

It is well recognised that regional variations in house prices in Australia are substantial. Furthermore, the price of housing varies far more dramatically than do average incomes in the various regions of the country. The evidence on housing affordability based on indices published by the Housing Industry Association and the Commonwealth Bank reveals a widening of housing affordability differentials between capital cities and other areas of the country. Although the greatest gap is between Sydney and the rest of Australia, there are also marked differences within cities, as demonstrated in the work of Abelson (1994), for example.²⁰

Figure 3.1 illustrates differences in the movement of property prices in Sydney according to distance from the CBD. While all house prices follow the same general trend, those for properties situated closer to the CBD are much more expensive than those in the outer LGAs (defined as those situated 25 kilometres or more from the CBD) and there is also a tendency for house prices in the inner suburbs to increase faster than those situated further from the CBD.

Figure 3.1 also reveals that although house prices in the Hurstville LGA exhibit the same general upward trend as other parts of Sydney, prices in Hurstville are closer to house prices in the outer suburbs than they are to prices in the inner suburbs. This suggests that property prices in Hurstville are by no means extreme relative to those prevailing in Sydney as a whole.

Figure 3.2 compares movements in house prices in Hurstville with changes in home loan interest rates over the period from 1981 to 1996. As anticipated, the relationship between the two is inverse although by no means perfectly so. To the extent that mortgage repayments themselves vary directly with both house prices and the rate of interest, Figure 3.2 provides an initial indication of the extent of the variation in mortgage repayments (and hence housing costs for purchasers) over the period.

The *price* of housing is only one of the factors that must be taken into account when considering the *costs* associated with purchasing a home (although it may be of major importance in determining who can gain *access* to the housing market). The availability and terms on which home loans are offered by the banks and other financial institutions are also of major importance for the ability to service a mortgage and the implied cost of doing so.

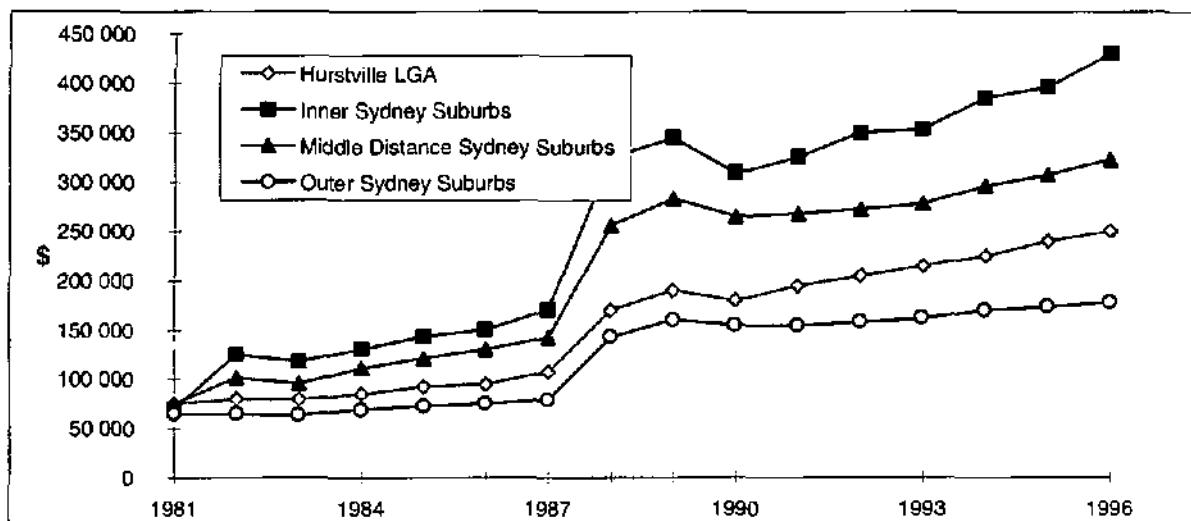
Obtaining a home loan, or at least a sufficiently large loan to finance the purchase of a house in Sydney, is in large part determined by the applicant's level of income, because weekly mortgage repayments must relate to some reasonable level of servicing the loan. Usually, lending institutions look for a level of servicing where weekly repayments do not exceed more than about 30 per cent of the assessed gross weekly income.²¹

²⁰ The empirical evidence analysed by Abelson indicates that property prices within cities tend to vary with the distance from the Central Business District (CBD), environmental quality, house site, as well as (in some cities) proximity to industry, transport services and dwelling quality indicators such as the percentages of brick and sewered houses (Abelson. 1994).

²¹ In practice, a significant percentage of Australian households are paying more than 30 per cent of their gross income in housing mortgage payments (AIHW, 1995. chapter 3).

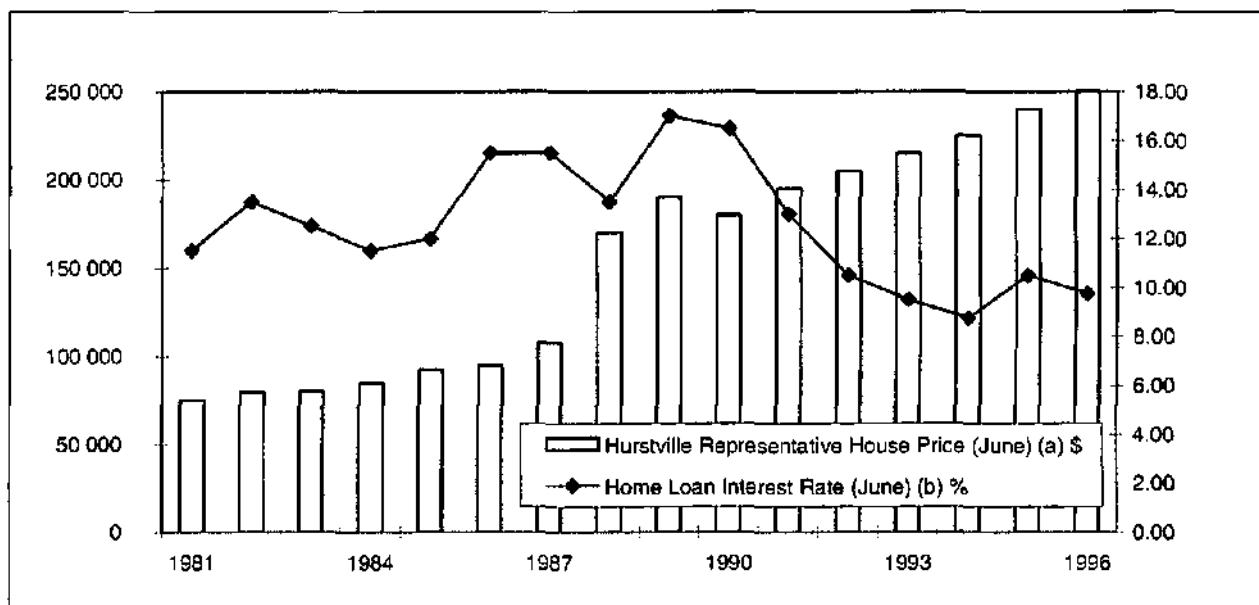
The most important issue that has to be confronted when developing the housing component of the budget for purchasers is that weekly housing costs reflect the cost of servicing the

Figure 3.1: Average House Prices, Hurstville LGA and Selected Sydney Suburbs: 1981–1996



Source: NSW Valuer-General's *Blue Book*, various years

Figure 3.2: Average House Prices in the Hurstville LGA and New Housing Loan Interest Rates: 1981–1996



Notes: (a) Prices are estimates made by the valuers of the fair market value at 30 June for a typical property in Hurstville LGA. The NSW Valuer General emphasises that it is market trends which are identifiable from these figures.

(b) Interest rates are those for variable interest owner-occupier housing loans from banks which are large home lenders.

Sources: NSW Valuer General's *Blue Book*, various issues, Reserve Bank Bulletin, various issues.

mortgage, and this in turn depends not only upon the purchase price of the property, but also on the period remaining before the loan has been fully paid off, the initial deposit provided by the purchaser and the history of repayments and interest rates since the loan was originally taken out.²²

Figure 3.2 illustrates that house prices exhibit considerable intertemporal instability, which means that the price paid by the purchasers of a given home will depend upon when it was bought, which will in turn affect the current level of mortgage repayments on the loan taken out of that time.

A further illustration of the same point is provided by the estimates in Table 3.6 which show how current mortgage repayments vary with the overall term of the loan and the rate of interest, assuming a *given* amount borrowed. When the amount borrowed is also allowed to vary, it is apparent that current weekly housing costs can assume virtually any level.²³

Table 3.6: Illustrative Mortgage Repayments at Varying Levels of Deposit and Duration of Borrowing

Duration of Borrowing	15 years	20 years	25 years	20 years	25 years
Amount Borrowed	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Rate of Interest (%)	6.00	6.00	6.00	8.00	8.00
Repayment (weekly)	\$194.51	\$165.17	\$148.56	\$192.82	\$177.97

Source: Calculated using the IMB Building Society Home Loan Simulator software package

The complex inter-relationships between the purchase price, level of deposit, the term remaining on the mortgage and the rate of interest constrain the development of the BSU housing budget mortgage repayment calculations, at least if the output is to be manageable and, to some extent at least, representative.

Rather than select a single combination of these variables on which to base a 'representative' housing budget for purchasers, a method was developed which produces illustrative housing budgets for a wide range of variations in the key variables which influence the level of current mortgage repayments.

Underlying these illustrative calculations is the assumption that the period of the loan is fixed at 25 years (the most common choice among Australian purchasers) and the assumption that there are 15 years outstanding on the loan. These two assumptions, in conjunction with the assumed aged of the adults in the BSU household types (Table 3.1), thus imply that the property was purchased 10 years ago, when the male was aged 30 and the female was 25.²⁴

²² Attention focuses for the moment on only that component of housing costs for purchasers which is directly related to mortgage repayments. Other aspects of housing costs (transactions costs; insurance: repairs and maintenance) are considered later.

²³ This variation is illustrated in the housing budgets derived by the UK by the Family Budget Unit, which vary by a factor of more than two to one (even for housing of a *given* price and assuming a *given* rate of interest) according to whether the occupier is assumed to have taken out a new mortgage or is assumed to have had one for 10 years (Hicks and Ernst, 1993. Table 3.1).

²⁴ The assumption that the property was purchased 10 years ago was also used in developing the UK housing budgets by Hicks and Ernst (1993).

These conditions correspond approximately to the average age at which Australians actually do purchase their first home.²⁵

The purchase price of the property itself is dependent on when, where and what was purchased. The foregoing discussions of location and housing quality have narrowed down issues associated with the 'where' and 'what' dimensions, but the critical 'when' issue still has to be resolved, as do the precise conditions under which the mortgage was obtained and what assumptions are made concerning mortgagee behaviour in the period since the loan was taken out.²⁶

The basic housing costs model has been set up so that the two key aspects of the loan are the amount owed currently and the period remaining before it is fully paid off. A consequence of adopting this approach is that it is not possible to convert from the amount that is currently owing back to the initial sum borrowed without having information about how interest rates and repayments have moved over the entire intervening period (and without making assumptions about how the mortgagee has responded to these—see footnote 26).

It is, however, relatively simple to estimate what the amount initially borrowed would have been, given the amount currently outstanding, if interest rates had remained unchanged at today's level over the entire period of the mortgage. These figures are useful in providing an indication of the amounts initially borrowed, but it should be recognised that they will not be accurate, given that interest rates have in fact changed considerably over the last 10 years in Australia (see Figure 3.2).

The main advantage of the approach rests on its ability to readily translate changes in mortgage interest rates into changes in purchaser housing budgets, and it is this nexus that is of prime interest to those currently paying off a mortgage. Furthermore, the model can also be used as the basis for exploring the sensitivity of housing costs to the size of the current mortgage which, to the extent that it is linked directly to the amount initially borrowed and hence to the original purchase price of the dwelling, provides a framework for allowing housing costs to vary with location (which is the main determinant of price differentials for houses of a *given* standard).²⁷

On the basis of dominant lender and type of loan, a Standard Credit Foncier Loan, or more simply, the *variable rate* home loan, obtained from a commercial bank has been assumed to apply to all BSU purchaser households. Table 3.7 shows how mortgage repayments vary according to the rate of interest and the amount currently outstanding on the loan on the assumption that a variable rate loan has been taken out and that it will be fully repaid in 15 years time.

²⁵ Table 3.D.2 in Appendix 3.D provides information on the deposits and amounts borrowed by those whose mortgages commenced between 1983 and 1988.

²⁶ The most important aspect of this is the extent to which mortgagees with variable interest loans respond to variation in mortgage interest rates by varying their repayments within a fixed mortgage period, or by maintaining the same level of repayment over a varied period.

²⁷ How the difference between the purchase price and the amount borrowed was obtained by the purchaser is not addressed in the development of the BSU housing budget, although it is a key determinant of housing market access.

Table 3.7: Hypothetical Loan Repayment Rates for Purchasers (\$ per month)

(a) Current repayments, assuming 15 years remaining on mortgage											
Amount Currently Owed (\$)	Interest Rate (per cent per annum)										
	5	6	7	8	9	10	11	12	13	14	15
50.000	395	422	449	478	507	537	568	600	633	666	700
60.000	474	506	539	573	609	645	682	720	759	799	840
70.000	554	591	629	669	710	752	796	840	886	932	980
80.000	633	675	719	765	811	860	909	960	1.012	1.065	1.120
90.000	712	759	809	860	913	967	1.023	1.080	1.139	1,199	1.260
100.000	791	844	899	956	1.014	1.075	1.137	1.200	1.265	1.332	1.400
110.000	870	928	989	1.051	1.116	1.182	1.250	1.320	1.392	1.465	1.540
120.000	949	1.013	1.079	1.147	1.217	1.290	1.364	1.440	1.518	1.598	1.680
130.000	1.028	1.097	1.168	1,242	1,319	1.397	1.478	1.560	1.645	1,731	1.819
140.000	1.107	1.181	1.258	1.338	1.420	1.504	1.591	1.680	1.771	1.864	1.959
150.000	1.186	1.266	1.348	1.433	1.521	1.612	1.705	1.800	1.898	1.998	2.099
160.000	1.265	1.350	1.438	1.529	1.623	1.719	1.819	1.920	2.024	2.131	2.239
170.000	1.344	1.435	1.528	1.625	1.724	1.827	1.932	2.040	2.151	2,264	2.379
180.000	1.423	1.519	1.618	1.720	1.826	1.934	2.046	2.160	2.277	2.397	2.519
190.000	1.503	1.603	1.708	1.816	1.927	2.042	2.160	2.280	2.404	2.530	2.659
200.000	1.582	1.688	1.798	1.911	2.029	2.149	2.273	2.400	2.530	2.663	2.799

(h) Amount that would have been borrowed 10 years earlier under constant interest rates											
Amount Currently Owed (\$)	Interest Rate (per cent per annum)										
	5	6	7	8	9	10	11	12	13	14	15
50.000	67.637	65.486	63.586	61.909	60.431	59.129	57.983	56.976	56.092	55.316	54.636
60.000	81.164	78.583	76.303	74.291	72.517	70.954	69.580	68.371	67.310	66.379	65.563
70.000	94.691	91.681	89.021	86.673	84.603	82.780	81.176	79.766	78.528	77.442	76.490
80.000	108.219	104.778	101.738	99.055	96.689	94.606	92.773	91.161	89.747	88.505	87.417
90.000	121.746	117.875	114.455	111.437	108.775	106.432	104.369	102.557	100.965	99.569	98.345
100.000	135.273	130.972	127.172	123.819	120.862	118.257	115.966	113.952	112.183	110.632	109.272
110.000	148.801	144.070	139.890	136.200	132.948	130.083	127.562	125.347	123.402	121.695	120.199
120.000	162.328	157.167	152.607	148.582	145.034	141.909	139.159	136.742	134.620	132.758	131.126
130.000	175.855	170.264	165.324	160.964	157.120	153.735	150.756	148.137	145.838	143.821	142.053
140.000	189.382	183.361	178.041	173.346	169.206	165.560	162.352	159.533	157.057	154.884	152.981
150.000	202.910	196.459	190.759	185.728	181.292	177.386	173.949	170.928	168.275	165.948	163.908
160.000	216.437	209.556	203.476	198.110	193.379	189.212	185.545	182.323	179.493	177.011	174.835
170.000	229.964	222.653	216.193	210.492	205.465	201.037	197.142	193.718	190.712	188.074	185.762
180.000	243.492	235.750	228.910	222.873	217.551	212.863	208.739	205.113	201.930	199.137	196.689
190.000	257.019	248.848	241.628	235.255	229.637	224.689	220.335	216.508	213.148	210.200	207.616
200.000	270.546	261.945	254.345	247.637	241.723	236.515	231.932	227.904	224.366	221.263	218.544

Source: EXCEL PMT module

The upper section of Table 3.7 shows the current monthly repayments for different combinations of the rate of interest (horizontal scale) and amount currently owed (vertical scale) given the mortgage assumptions described above. Thus, for example, someone with an outstanding mortgage balance of \$80,000 would face monthly repayments of \$765 if the rate of interest was eight per cent, falling to \$675 a month at an interest rate of six per cent, and rising to \$860 at an interest rate of 10 per cent.

The lower half of Table 3.7 converts backwards (assuming an unchanged rate of interest for illustrative purposes, as explained above) to calculate the amount that would have been borrowed 10 years ago which corresponds to the amount owing currently given the current (assumed unchanged) rate of interest.

Thus, to take the same examples as previously, someone who owes \$80,000 now would have borrowed \$99,055 10 years ago if the (constant) interest rate had been eight per cent, \$104,778 if the interest rate had been six per cent, or \$94,606 if the interest rate had been 10 per cent.²⁸

Accepting the artificiality in these latter figures, they can be used to estimate the initial purchase price by making further assumptions concerning the size of the original deposit. If, for example, the deposit is assumed to be 25 per cent of the purchase price, the above loans would have afforded the purchase 10 years ago of properties worth \$123,812, \$130,972 and \$118,258, respectively. These amounts can be compared with the price of a representative cottage in Hurstville in 1987 of \$107,500 shown in Figure 3.2.

These examples highlight the variability of housing costs for those repaying a mortgage and their extreme sensitivity to several key assumptions concerning the conditions applying to the mortgage used to purchase the property. As can be seen from Table 3.7, the variability arising from different mortgage assumptions is possibly greater than that arising from variations in the price of the dwelling itself. For this reason, as explained earlier, the BSU housing budgets for purchasers must be treated differently from the other budget components.

It is worth noting at this stage that the mortgage repayments shown in Table 3.7 include both the payment of interest and the repayment of principal on the amounts originally borrowed. Although the former are a legitimate component of current housing costs, the latter represent a form of household saving which imply, because the households net asset position is improving over time, that their standard of living is also rising. This is inconsistent with the budget standards methodology which, as explained earlier, attempts to cost what is needed to maintain a *given* standard of living.

This line of argument indicates that only the *interest component* of the mortgage repayments of house purchasers should be included in the housing budget rather than total (interest plus principal) mortgage repayments. This in turn raises a further issue, relating to why housing has been treated differently from the purchase of other durable items where, as explained in Chapter 2, the original purchase price is spread over an assumed lifetime and then included in the relevant household budgets. Why not apply the same method to housing?

There are two reasons why this is not a sensible approach in the housing context, one conceptual and the other practical. The conceptual issue surrounds the fact that it is not

²⁸

Note that in this case a *lower* interest rate implies that a *greater* amount was borrowed initially because of the assumption that the current repayment level and the term of the loan are both fixed.

possible to assign a meaningful lifetime to housing in the same way as other durables. Most housing does not have a lifetime over which it can be assumed to 'wear out' in the same way that consumer durables do. Indeed, it is precisely this feature of housing that makes it such an attractive purchase for many households.

The second problem, which is more practical in its impact, is that even if it were possible to assign a lifetime to housing and use this to spread the purchase price when constructing the housing budget, the resulting estimates would bear no relation whatsoever to what purchasers are actually paying in the form of housing costs.

Consider, for example, a house valued at \$107,500 at the time of purchase—equal to the price of the representative Hurstville house in 1987 referred to earlier. The age of the purchaser is assumed to be 40 years, and the house has an assumed lifetime of 45 years (corresponding roughly to the remaining lifetime of the purchaser). On these assumptions, the annual price of the house would equal $\$107,500/45 = \$2,389$, or around \$45.80 a week. This amount would be far below what would be repaid on the mortgage in the early years, but well above the (zero) amount owing once the mortgage had been repaid.

In other words, applying the conventional budget standards treatment of consumer durables to housing would result in a housing budget that bore no relation to the actual housing costs paid by home purchasers. The approach would greatly under-state the budgets of younger households and greatly over-state the budgets of older households.²⁹ In light of these limitations, the housing costs model described earlier (adjusted by removing the repayment of the principal component of the mortgage) is a preferable approach, despite its limitations.

Adoption of the housing costs matrix method illustrated in Table 3.7 has the disadvantage that there will be no overall budget produced for purchasers. Against this, the method provides considerably greater flexibility in the extent to which the budgets can be customised to fit the circumstances of purchasers with particular mortgage arrangements.

A consequence of this, however, is that it is preferable to use the housing budgets developed for renters (which suffer far fewer problems than those for purchasers, but are still not themselves entirely unproblematic) as the benchmark for housing costs generally.

Indeed, it can be argued that these renter costs could be used as the housing cost of purchasers, on the grounds that, in the long-run, on the assumption that the housing market is competitive, housing costs will be independent of the choices made between alternative tenures for houses of the *same* quality (as far as this can be determined).

These market rental costs could then be used, if necessary, to determine the combination of purchase price, deposit (and hence the amount borrowed) and time since the loan was secured that generates the same current periodic payment as the current market rent, given the current rate of interest.

This approach has not been followed explicitly, although it is possible to generate its consequences by simply substituting the housing costs of renters into the housing budgets derived for purchasers.

²⁹ It is, of course, true that most younger households are willing to accept the lower standard of living associated with meeting mortgage repayments in the early years of the mortgage, in anticipation of the higher standard they will enjoy later, but such decisions cannot form part of the development of a budget standard for housing.

The housing budgets include an estimate of the mortgage interest cost for purchasers derived from behavioural data on housing expenditure derived from the *1993-94 Household Expenditure Survey* (HES). The HES data were used to provide an estimate that is consistent with the modelling framework described earlier but one that also relates to the actual housing expenditures of purchaser households.

This illustrative figure was calculated separately from the HES data relating to households purchasing two-bedroom and three-bedroom dwellings. It was determined by selecting households living in New South Wales, with a head aged between 30 and 40 years, who were currently purchasing their principal place of residence. For this sub-sample of all HES households, the average repayment was estimated for households lying in a band between five per cent below and five per cent above the median.

Because the HES data separates total mortgage repayments into their principal and interest components, the interest component only of this illustrative mortgage repayment costs was included in the modest but adequate housing budget for purchasers.³⁰

3.5 Additional Housing Costs

The final stage in constructing the housing budget involves estimating an amount to cover recurrent costs other than mortgage interest repayments or rent that are related to housing. These annual running costs and statutory charges include council rates, water and sewerage charges, dwelling (for purchasers and owner-occupiers) and contents insurance, as well as maintenance (including re-decoration) and repair costs (for purchasers and owner-occupiers).

Because budget standards estimate the on-going expenditures required to maintain a given standard, all other expenses associated with the cost of buying, including the legal costs associated with purchasing a dwelling, and the costs associated with renting, such as the payment of rental bonds and any rental advances (which are often refundable at a later stage), are taken as one-off barriers to entry to the housing market and have thus not been factored into weekly budget standard calculations.

Private renters in New South Wales are required to pay a \$15 registration fee when renting through a real estate agent. This fee is often charged by private landlords also. In light of this, the fee has been included in the housing budgets of all private renters, on the assumption that the average length of tenure for private renters is two years.³¹

Council Rates

In New South Wales, the owner of rental dwellings is liable for the payment of council rates and water service charges and these have therefore not been included in the housing budgets of renters at either the low cost or modest but adequate levels. Maintenance costs (including re-decoration) and repairs are also the responsibility of the landlord, unless the tenant deliberately causes damage, in which case the tenant must bear the costs of repair. Again, no allowance has been made in the budgets for these items.

³⁰ It is worth noting that after correcting for inflation, the resulting estimate of mortgage interest costs is reasonably close to the median level of rents for two- and three-bedroom dwellings in the Hurstville LGA.

³¹ The assumption of an average tenancy period of two years is also used in developing the household goods and services budget (see Chapter 7).

For tenants in public housing, local council rates are paid by the owner of the dwelling, in this case the NSW Department of Housing. Currently, water rates on most public rental properties are also paid by the Department. Maintenance and repairs are carried out by the Department, unless the tenant deliberately causes any damage. Council tenants may re-decorate properties provided they obtain permission from the Department, although no allowance has been made for tenants to undertake any re-decoration at their own expense.

Council rates are based on the land value of the property as assessed by the Valuer-General's Department. Different Councils charge different rates. In February 1997, Hurstville Council applied a factor of 0.424883 cents in the dollar to the assessed unimproved capital value of the property. Because rate charges are so specific to individual properties—even houses on the same street do not necessarily pay the same rates—it was decided to use the rates relevant to the Valuer-General's assessment for: a representative 'cottage' site in Hurstville (12 metres by 36 metres) for houses, and a representative low-rise medium-density site (315 squared metres in a block of four units) for units. The Valuer-General's assessed values for the two properties just described were \$210,000 and \$87,500, respectively, and the corresponding rates were \$892.25 and \$371.77.

Although most Councils impose garbage collection charges, different Councils impose different charges. The Hurstville Council charges \$101 per year for the first bin for house and unit owners, with subsequent bins charged at a unit cost of \$150.25. All BSU households are assumed to have only one garbage bin.

Rebates on Council rates and garbage collection fees are available through Hurstville Council to those holding pension concession cards. At February 1997, if the rates and garbage collection fees combined were \$500 or less, the rebate was half of the combined figure. For those with combined figures exceeding \$500, the rebate rises less than proportionately, to a maximum value of \$325. The older owner-occupier BSU households (household types H5 and H6) at the low cost standard were both assumed to receive the maximum rebate.

Water, Sewerage and Drains Charges

Water Board water charges depend in large part on whether or not a water meter has been installed in the property.³² For metered services, there is a quarterly service availability charge plus a usage fee, while for unmetered services a fixed quarterly charge of \$67 is applied by the Water Board. The water service availability charge for those living in houses is \$20 per quarter. For those living in units this charge varies with the size of the water meter and the number of units in the block."

The service charge for sewerage in February 1997 was \$67.90 per quarter and the service charge for drainage was \$4 per quarter.

Water usage has been charged at the rate of 76c per kilolitre set by the Water Board. The Water Board estimates an average annual usage for an average home dwelling household at 250 kilolitres, at a cost of \$47.50 per quarter. Following information provided by the relevant staff at the Water Board, an estimate of the amount of water consumed was based on the average usage per person of 24 kilolitres per quarter.

³²

The Water Board has indicated that most houses in the Hurstville LGA are metered.

³³

It was assumed that these households are located in medium density 12 unit blocks with 40 mm water meters. Such a block of units accrues a quarterly service availability charge of \$80, or \$6.67 per unit.

Rebates on water bills are available to those on pensions, and again it has been assumed that low cost owner occupier households receive maximum rebates.³⁴

Home and Contents Insurance Costs

Included in the budgets as a component of housing costs for owners and purchasers are the costs of insuring the dwelling structure (including garages, fences, in-ground pools as well as permanent fixtures and fittings attached to the property) and the costs of contents insurance covering household goods and personal effects. Insurance companies generally sell both types of insurance and will combine both on the same policy document if required.

While the cost of insuring the dwelling itself is related to its value, the premiums set for contents insurance vary by location according to the risk of experiencing a burglary and thus submitting a claim. *The Insurance Contracts Act 1984* prescribes a 'standard' level of cover which an insurance policy should offer. Insurers have the freedom to offer more or less cover, provided that they inform the policy holder. Policy holders are required to insure for the full value of their contents, or the full cost of rebuilding their home, whether or not they would be satisfied with less.

There are two types of home and contents insurance, replacement (new for old) and indemnity (based on insurance of the depreciated values only). Replacement policies offer a greater degree of protection and a February 1996 *Choice* magazine survey of insurance policies found that replacement policies for 'defined events' are the most common type of insurance cover.³⁵

The insurance costs used in the BSU housing budgets are based on the insurance policies reviewed and recommended in the February 1997 issue of *Choice* magazine (Australian Consumers' Association, 1996). The range of polices reviewed cover a relatively high level of insurance, from which a level of coverage from the mid- to lower-end of the range has been selected. Where no-claims discounts have been available, these have been applied.

The insurance figures quoted are those applying to dwellings in the Hurstville LGA and have been adjusted to reflect variations in the type of building, the cost of re-building the property and an estimate of the value of all household contents obtained from the other Budgets. An NRMA contents-only insurance policy was selected for all households, while an NRMA building policy was chosen for purchasers and outright owners.

The value of household contents reflects the value of all of the relevant items purchased as part of the household goods and services, leisure, clothing and footwear, health, personal care and food budgets.³⁶

³⁴ Eligible pensioners (i.e. those in possession of a pensioner concession card) receive a rebate of 100 per cent of the service availability charge for water and 50 per cent of the similar sewerage and stormwater drainage charges. Due to recent changes in pricing policy, pensioners also receive a transitional rebate of \$17 per quarter on the water usage fee.

³⁵ 'Defined Events' cover a selection of risks which are the same for both building and contents policies and generally include: fires and explosion; lightning; theft and burglary; earthquake; malicious damage; bursting, leaking, discharge and overflowing of fixed apparatus, tanks or pipes used to hold liquid; riot; impact damage; and storm and drainwater damage.

³⁶ In some households, the implied total value of contents insured was less than \$15,000. However, a contents insurance policy covering \$15,000 was reflected in the housing budget even though the advice of insurance companies indicates that \$15,000 itself is very conservative.

Maintenance (including Decoration) and Repairs

This area is one of the most difficult elements of housing expenditure to determine and thus one of the most challenging to incorporate into a budget standard. While much information is gathered on the extent of do-it-yourself activity on home extensions and renovations, much less is available on what types and quantity of repairs and maintenance are undertaken, or of their cost.

It is generally accepted that houses over 30 years old require more maintenance than newer houses, although the 1994 *Australian Housing Survey* reveals that, irrespective of tenure, almost 70 per cent of all households reported that they had no need for external repairs, while over 67 per cent reported that they had no need for internal repairs (see Table 3.D.3 in Appendix 3.D).

Initially, an attempt was made to establish a set of proxy maintenance and repair costs using various estimates of the costs of repairs derived from data from the NSW Department of Housing and the South Australian Housing Trust. Unfortunately, this proved unsuccessful, mainly because the advice of local tradespeople in the Hurstville area revealed wide variations in the estimates of the annual cost of maintenance and repairs.

An analysis of data from the 1993-4 *Household Expenditure Survey* by State, housing tenure and numbers of bedrooms was thus used to estimate the average annual cost of repairs and maintenance of detached houses. This cost was estimated for owners and purchasers in New South Wales, and varies according to the number of bedrooms in the house.

A similar procedure was used to determine the typical Body Corporate payments for those purchasing home units. It was assumed that after paying their own contribution to the Body Corporate, the purchasers of home units had no further maintenance costs to meet.

3.6 Overall Housing Budgets

The housing budgets for each of the 12 household types, taking into account all the elements described above, are summarised for each of the 12 basic BSU household types in Tables 3.8 and 3.9.

For purchaser households, it has been assumed for illustrative purposes that the purchasers of two-bedroom dwellings have mortgage repayments of \$189.67 per week (\$61.11 repays the principal and \$128.56 is a payment for the interest component on the loan) and that the purchasers of a three-bedroom dwelling have mortgage repayments of \$210.18 per week (\$75.85 repays the principal and \$134.33 is a payment for interest component on the loan).

Variations in dwelling size and other variations reflecting location and other factors that determine house prices, can be incorporated into the estimates by inserting new figures derived from the matrix in Table 3.7 which shows how mortgage repayments vary with the amount borrowed and the rate of interest.

The summary housing budgets in Tables 3.8 and 3.9 reflect how mortgage repayments change with the size of the dwelling, as well as incorporating some variation in insurance costs, in the liability for Council rates, in typical water charges and in maintenance and repair costs for purchasers.

Table 3.8: Weekly Housing Budgets at the Modest but Adequate and Low Cost Standards

Household Type/Housing Costs	Modest but Adequate Purchasers	Private Renter ^(a)	Low Cost Renter ^(a)
Household Type H1			
Mortgage repayments/rent	189.67	136.	30 ^(b)
Building &/or contents insurance	3.93	3.93	3.93
Rates and garbage collection charges	9.07	na	na
Water	8.45	na	na
Repairs & maintenance	16.34	na	na
Total Weekly Housing Costs (\$)	227.46	140. 23	123. 67
Household Type H2			
Mortgage repayments/rent	189.67	136.	30(b)
Building &/or contents insurance	9.62	3.93	3.93
Rates and garbage collection charges	19.05	na	na
Water	9.85	na	na
Repairs & maintenance	16.98	na	na
Total Weekly Housing Costs (\$)	245. 17	140. 23	123. 67
Household Type H3			
Mortgage repayments/rent	210.18	208.	61(d)
Building &/or contents insurance	10.40	4.32	3.93
Rates and garbage collection charges	22.31	na	na
Water	12.65	na	na
Repairs & maintenance	13.34	na	na
Total Weekly Housing Costs (\$)	268. 88	212. 93	195. 98
Housing Costs	Modest but Adequate Purchasers	Private Renter(a)	Low Cost Public Renter ^(a)
Household Type H4			
Mortgage repayments/rent	189.67	165.74 ^(f)	151.94 ^(g)
Building &/or contents insurance	9.62	3.93	3.93
Rates and garbage collection	19.05	na	na
Water	9.85	na	na
Repairs & maintenance	16.98	na	na
Total Weekly Housing Costs	245.17	169.67	155. 87
Household Type H5			
Rent	na	na	105. 00(j)
Building &/or contents insurance	8.26	8.26	3.26
Rates and garbage collection charges	16.08(e)	16.08(e)	na
Water	8.45	8.45	na
Repairs & maintenance	13.34	13.34	na
Total Weekly Housing Costs	46.13	46.13	108.26
Household Type H5		Low Cost	
Housing Costs		Outright Owner	Outright Owner
			Public Renter

Table 3.8: Weekly Housing Budgets at the Modest but Adequate and Low Cost Standards (Continued)

Housing Costs	Modest but Adequate		Low Cost	
	Outright Owner	Outright Owner	Public Renter	Public Renter
Household Type H6				
Rent	na	na	105.00(j)	56.00 ^(k)
Building &/or contents insurance	8.45	8.26	3.26	3.26
Rates and garbage collection charges	16.08 ^(e)	16.08(e)	na	na
Water	9.85	9.85	na	na
Repairs & maintenance	13.34	13.34	na	na
Total Weekly Housing Costs	47.72	47.53	108.26	59.26
Household Type H7				
Housing Costs	Modest but Adequate		Low Cost	
	Purchasers	Private Renter ^(a)	Private Renter ^(b)	Public Renter
Mortgage repayments/rent	210.18	165.74 ^(f)	151.94 ^(g)	135.00(h) 65.20 ^(l)
Building &/or contents insurance	10.11	4.32	3.93	3.93
Rates and garbage collection	22.31	na	na	na
Water	11.25	na	na	na
Repairs & maintenance	13.34	na	na	na
Total Weekly Housing Costs	267.19	170.06	155.87	138.80 69.13
Household Type H8				
Housing Costs	Modest but Adequate		Low Cost	
	Purchasers	Private Renter ^(a)	PrivateRenter(a)	
Mortgage repayments/rent	210.18	165.74 ^(f)	151.94(g)	
Building &/or contents insurance	10.40	4.32	3.93	
Rates and garbage collection	22.31	na	na	
Water	11.25	na	na	
Repairs & maintenance	13.34	na	na	
Total Weekly Housing Costs (\$)	267.48	170.06	155.87	
Household Type H9				
Mortgage repayments/rent	210.18	165.74(f)	151.94 ^(g)	
Building &/or contents insurance	10.12	4.32	3.93	
Rates and garbage collection	22.31	na	na	
Water	11.25	na	na	
Repairs & maintenance	13.34	na	na	
Total Weekly Housing Costs (\$)	267.19	170.06	155.87	
Household Type H10				
Mortgage repayments/rent	210.18	208.61(d)	192.05(e)	
Building &/or contents insurance	10.40	4.60	4.32	
Rates and garbage collection	22.31	na	na	
Water	14.05	na	na	
Repairs & maintenance	13.34	na	na	
Total Weekly Housing Costs (\$)	270.28	213.21	196.23	

Table 3.8: Weekly Housing Budgets at the Modest but Adequate and Low Cost Standards (Continued)

Housing Costs	Modest but Adequate Purchasers	Modest but Adequate Private Renter(a)	Low Cost Private Renter(a)
Household Type H11			
Mortgage repayments/rent	210.18	208.61 ^(d)	192.05(e)
Building &/or contents insurance	10.50	4.60	4.32
Rates and garbage collection	22.31	na	na
Water	15.45	na	na
Repairs & maintenance	13.34	na	na
Total Weekly Housing Costs (\$)	271.77	213.21	196.37
Housing Costs	Modest but Adequate Purchasers	Modest but Adequate Private Renter(c)	Low Cost Public Renter Private Renter(d)
Household Type H12			
Mortgage Repayments/rent	210.18	208.61(d)	192.05(e) 145.00 ⁽ⁱⁿ⁾ 49.00(n)
Building &/or contents insurance	10.12	4.32	3.93 3.93
Rates and garbage collection	22.31	na	na na
Water	11.25	na	na na
Repairs & Maintenance	13.34	na	na na
Total Weekly Housing Costs	267.19	212.93	195.98 148.93 52.93

- Notes:
- (a) Private rents include registration fee of \$0.14 a week.
 - (b) Median rent, one-bedroom unit, Hurstville, March Quarter 1997.
 - (c) First quartile median rent, one-bedroom unit, Hurstville, March Quarter 1997.
 - (d) Median rent, three-bedroom unit, Hurstville, March Quarter 1997.
 - (e) First quartile median rent, three-bedroom unit, Hurstville, March Quarter 1997.
 - (f) Median rent, two-bedroom unit, Hurstville, March Quarter 1997.
 - (g) First quartile median rent, two-bedroom unit, Hurstville, March Quarter 1997.
 - (h) Market rent for two-bedroom walk-up/unit on Riverwood Estate, February 1997.
 - (i) Subsidised rent for two-bedroom walk-up/unit on Riverwood Estate, February 1997.
 - (j) Market rent for pensioner unit, Hurstville, February 1997.
 - (k) Subsidised rent for pensioner unit, Hurstville, February 1997.
 - (l) With concession.
 - (m) Market rent for three-bedroom walk-up/unit on Riverwood Estate, February 1997
 - (n) Subsidised rent for three-bedroom walk-up/unit on Riverwood Estate, February 1997.

Table 3.9: Summary Housing Budgets for the 12 Basic Household Types

Household Type	Modest but Adequate			Low Cost		
	Purchaser	Owner	Private renter	Owner	Private renter	Public renter: Market rent Subsidised rent
H ₁	\$227.46		\$140.23		\$123.67	-
H ₂	\$245.17		\$140.23		\$123.67	-
H ₃	\$268.88		\$212.93		\$195.98	-
H ₄	\$245.17		\$169.67		\$155.87	\$138.93
H ₅	-	\$46.13	-	\$46.13	-	\$108.26
H ₆	-	\$47.72	-	\$47.72	-	\$108.26
H ₇	\$267.19		\$170.06		\$155.87	\$138.80
H ₈	\$267.48		\$170.06		\$155.87	-
H ₉	\$267.19		\$170.06		\$155.87	-
H ₁₀	\$270.28		\$213.21		\$196.23	-
H ₁₁	\$271.77		\$213.21		\$196.37	-
H ₁₂	\$267.19		\$212.93		\$195.98	\$148.93
						\$52.93

However, by far the greatest variability shown in the housing budgets is between those who own their homes outright and all other tenure situations. For outright owners (who correspond to those households above pension age as shown in Table 3.1), **weekly** housing costs are around \$50 regardless of the standard of living.

The estimated housing budgets of renters (private and public) show more variation than those for purchasers, although this reflects the differing approaches used to construct them. At the low cost standard, those in public housing have housing costs that are between \$17 to \$47 a week **lower** than private renters, **even** before any public housing concessions have been factored into the calculations. Private renters at both the modest but adequate and low cost levels have the greatest variability in housing costs, with those for the latter being somewhat lower.

3.7 Summary

The housing budgets for the individual BSU household types presented in Table 3.8 and summarised in Table 3.9 have been derived using the procedures and assumptions described in this Chapter. Although it was initially thought that the housing occupancy norms described in Section 3.2 would provide a useful basis for specifying how housing quality varies with household characteristics, this did not prove to be the case in practice, for a number of reasons.

These include the fact that the nature of the Australian housing market and the range of tenure choices available within it prevent the Canadian occupancy standards from being combined with housing costs to produce housing budgets that can apply nationally in Australia. The indicative BSU housing budgets show, as anticipated, that weekly housing costs are very sensitive not only to the assumed tenure position, but also according to the many other assumptions on which the budgets are based.

Primarily for this reason, it has been proposed that the housing budgets be treated separately from the remaining budget components. In practice, this will involve presenting the overall household budgets both inclusive and exclusive of housing costs. There is also the need to allow the purchaser budgets to be sufficiently flexible to allow the incorporation of variations in the mortgage and rate of interest as illustrated in Table 3.7.

These considerations suggest that considerable caution should apply to the specific uses to which the estimates in Tables 3.8 and 3.9 are put. Although it has been possible to develop indicative housing budgets for each of the basic BSU household types, the task of developing a 'representative' housing budget remains elusive. The best that can be achieved is to develop a framework that permits the user to vary the key assumptions and explore their consequences for housing costs.

APPENDIX 3.A: Background Information on the Australian Housing Circumstances of Households

Table 3. A. 1: Householders Tenure, States and Territories, Australia 1994

<u>Households (%)</u>	Tenure Type			
	Owner	Purchaser	Private	Renter^(a)
			Public	
NSW	44.6	25.8	20.1	7.6
Vic	44.4	30.0	20.2	4.1
Qld	39.6	28.5	24.1	4.4
SA	40.7	28.5	15.8	12.5
WA	37.8	32.1	20.4	6.8
Tas	45.7	26.1	18.3	7.9
NT	14.5	29.9	18.3	23.0
ACT	28.2	35.8	21.3	13.5
Australia	42.1	28.4	20.5	6.7

Note: (a) Figures exclude 'Other renters' and 'Not stated'.

Source: ABS, 1996a, *Housing Characteristics, Costs and Conditions*, Catalogue No. 4182.0.

Table 3.A.2: Home Owners and Purchasers: 1994

<u>Household type</u>	Owners	Purchasers
Couple with dependants	29.0	49.5
Couple without dependants	58.9	24.0
Lone mother with dependants	25.0	18.5
Lone mother with non-dependants only	25.1	15.9
Lone father with dependants	37.7	23.5
Women living alone	54.8	11.3
Men living alone	34.9	19.6

Source: ABS, 1995a, *Australian Women's Year Book 1995*, Catalogue No. 4124.0.

Table 3.A.3: Types of Dwelling Occupied by All Renters, Australia and Sydney

<u>Type of Dwelling</u>	Nature of Occupancy (per cent)	
	Australia, 1994	Sydney, 1991
	Public renter	Private renter
Separate house	50.4	45.3
Semi-detached, row or terrace house, townhouse	15.3	29.1
Flat, unit, apartment	33.4	24.1
Other	0.8	1.6
Total	100.0	100.0

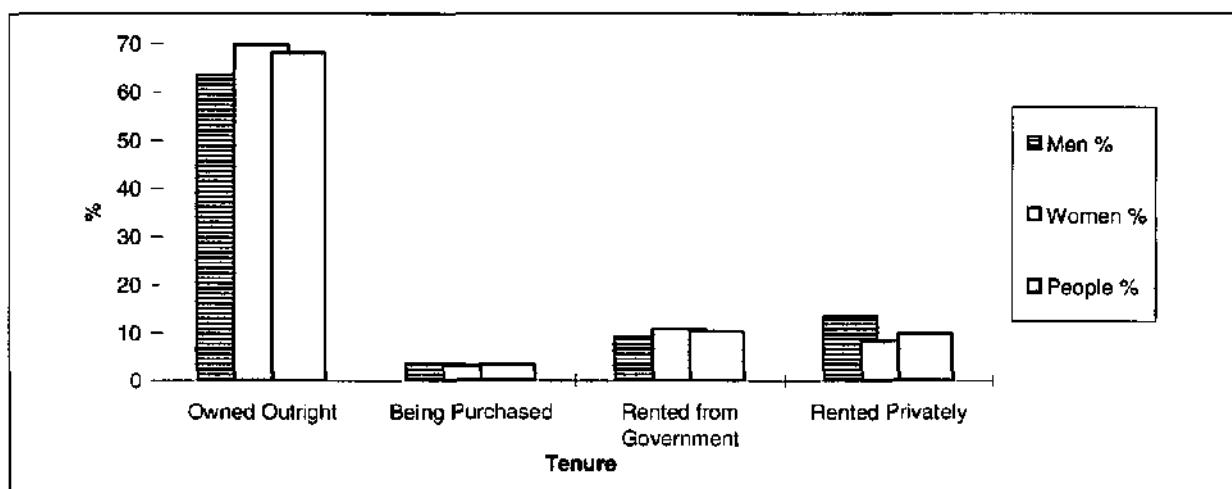
Source: ABS, 1995b *Renters Australia, April 1994*, Catalogue No. 4138.0.

Table 3.A.4: Age and Sex of Individuals by Nature of Occupancy: 1994

Age group (years)	Nature of Occupancy (Percentage)			Total(a)
	Owners/ purchasers	Renters/ boarders	Rent-free	
Males				
15 to 19	0.3	21.3	78.2	100
20 to 24	8.6	56.4	34.9	100
25 to 29	36.9	47.3	15.5	100
30 to 34	60.5	33.3	6.2	100
35 to 39	69.3	25.8	4.7	100
40 to 44	76.7	20.1	3.0	100
45 to 49	81.0	16.1	2.7	100
50 to 54	83.5	14.4	1.9	100
60 to 64	85.7	11.6	2.6	100
65 and over	85.7	11.2	2.9	100
Total	59.0	25.7	15.2	100
Females				
15 to 19	1.0	22.4	76.6	100
20 to 24	15.8	55.7	28.3	100
25 to 29	45.8	44.1	9.8	100
30 to 34	65.5	29.8	4.6	100
35 to 39	73.4	24.4	2.1	100
40 to 44	79.4	18.6	1.9	100
45 to 49	83.1	14.9	2.0	100
50 to 54	84.7	13.3	2.0	100
55 to 59	85.5	12.0	2.4	100
60 to 64	87.0	10.3	2.5	100
65 and over	80.7	14.5	4.7	100
Total	62.0	24.9	13.0	100
Persons				
15 to 19	0.6	21.8	77.4	100
20 to 24	12.2	56.0	31.6	100
25 to 29	41.5	45.6	12.5	100
30 to 34	63.1	31.4	5.3	100
35 to 39	71.3	25.0	3.4	100
40 to 44	78.0	19.3	2.4	100
45 to 49	82.0	15.5	2.3	100
50 to 54	84.0	13.8	1.9	100
55 to 59	85.1	12.2	2.5	100
60 to 64	86.3	10.9	2.5	100
65 and over	82.9	13.0	3.8	100
Total	60.5	25.2	14.0	100

Note: (a) Includes a small proportion of persons who have some other nature of occupancy.

Source: ABS, 1995b *Renters Australia, April 1994*, Catalogue No. 4138.0.

Figure 3.A.1: People Aged 60 Years and Over Living Alone, NSW, 1991

Source: ABS (1995f), *Older People in NSW: A Profile*, Catalogue No. 4108.1.

APPENDIX 3.B: Background Information in Public Housing and Housing Circumstances in the Hurstville Local Government Area

Table 3.B.1: Distribution of Newly Accommodated(a) Public Housing Households by Household Type, 1986-87 and 1991-92 (percentage)

State/ Territory	Couple only	Two-parent family	Single person	One-parent family	Other household	Not specified	All households
NSW	5.3	22.3	26.6	39.0	6.5	0.2	100
WA	8.2	24.9	25.6	27.9	13.4	0.0	100
SA ^(b)	10.0	10.9	43.5	20.6	14.6	0.4	100
Tas	7.6	23.0	33.3	36.0	0.0	0.0	100
ACT	8.7	11.1	40.6	31.2	8.3	0.1	100

Notes: (a) Households accommodated in a financial year in public housing from the waiting list and who are currently housed in the private sector, rather than seeking a transfer within public housing, are said to be newly accommodated in public housing in that financial year.
 (b) In South Australia 36 new tenants had neither income source nor family type specified.

Sources: Housing Assistance Act annual reports, 1986-87 and 1991-92.

Table 3.B.2: Proportion of Household Types Newly Accommodated in Public Housing Households by Source of Income, 1986-87 and 1991-92 (percentage)

State/ Territory	Source of Income(a)	Couple only	Two-parent family	Single person	One- parent family	Other household	Not specified	All households
NSW	Income earners	11	48	4	8	8	31	16
	Pensioners	89	52	96	92	92	69	84
WA	Income earners	29	37	23	12	28	0	25
	Pensioners	71	63	77	88	72	0	75
SA(b)	Income earners	35	28	17	5	26	n.a.	19
	Pensioners	65	72	83	95	74	n.a.	81
Tas	Income earners	9	16	5	4	0	0	7
	Pensioners	91	84	95	96	0	0	93
ACT	Income earners	46	66	25	14	47	100	30
	Pensioners	54	34	75	86	53	0	70

Notes: a) The source of income for a tenant household is reported as a 'pension' if more than 50 per cent of the family income is derived from government pensions or benefits. Otherwise, the household is described as an 'income-earner'. Family income includes the income of the 'breadwinner' and spouse only (where relevant) but excludes income of other adults or independent children.
 b) In South Australia 36 new tenants had neither income source nor family type specified.

Sources: As for Table 3.B.1

Table 3.B.3: Percentage of Persons Living in Different Dwellings, Hurstville LGA: 1991

Postcode Area	Proportion of persons in occupied private dwellings		
	Separate houses	Detached/row/terrace/town house	Flats/Apartments
Kingsgrove	93.2	1.9	3.4
Beverly Hills/Narwee	84.1	5.7	8.9
Peakhurst/Lugarno/Riverwood	86.4	1.7	10.9
Hurstville	73.0	4.8	21.1
Penshurst	64.3	5.3	29.1
Mortdale/Oatley	76.9	3.3	18.7

Source: CD ROM, *C-Data* files, 1991 Census Data.

Table 3.B.4: Numbers of Households by Tenure by Post Code Area, Hurstville LGA, 1991 (Numbers)

	Kingsgrove	Beverly Hills/ Narwee	Peakhurst/ Lugarno/ Riverwood	Hurstville	Penshurst	Mortdale/ Oatley
One-parent families who own	145	187	348	254	107	263
One-parent families buying	37	60	137	78	45	119
One-parent families Rent (Govt)	55	88	551	60	18	33
One-parent families Rent (other)	67	55	106	18	105	153
Couples (no children) who own	854	781	1,348	850	373	1,078
Couples (no children) buying	105	148	389	263	133	357
Couples (no children) renting from government	29	63	224	1125	12	6
Couples (no children) renting (other)	82	114	134	783	202	353
Lone households who own	515	486	691	945	459	945
Lone households buying	66	77	101	165	140	193
Lone households renting (Govt)	54	104	809	59	9	28
Lone Households rent (other)	113	91	123	28	222	578

Source: CD ROM, *C-Data* files, 1991 Census Data.

APPENDIX 3.C: Census Data Comparisons of Hurstville and Greater Sydney
Table 3.C.1: 1991 Census Indicators for Hurstville and Greater Sydney

Indicator	Hurstville	Sydney
Demographic		
Total population	63,707	4.2m
Annual rate of population growth	0.15	0.99
% at same address five years ago	67.3	60.2
% aged 0-4	6.1	7.2
% aged 5-14	11.9	14.1
% aged 15-24	16.0	16.0
% aged 25-44	28.7	31.8
% aged 45-64	21.8	19.5
% aged 65-74	9.5	6.9
% aged 75+	6.1	4.6
Household type		
Two-parent families	38.9	40.4
One-parent families	8.8	9.7
Couples with no children	25.0	22.2
Other families	3.0	2.6
Group households	3.4	5.1
Single person households	20.5	20.0
Social characteristics		
% of persons living in non-private dwellings	1.3	2.9
% of person from NESB (country of birth)	20.2	20.2
% using language other than English at home	25.4	25.4
% of secondary students at non-government schools	34.3	34.9
% aged 15+ with university degree	8.8	10.2
% aged 15+ with no post-school qualification	57.7	65.7
Ratio of higher education students to population aged 18-24 (%)	27.2	29.7
Income		
Males aged 25-54, % income >\$30,000	45.6	44.1
Females aged 25-54, % income >\$30,000	16.7	16.6
Two-parent families with dependent children, % income <\$20,000	9.7	11.4
Housing		
% of households renting	24.2	29.4
% of two-parent families renting	15.6	18.6
% of one-parent families renting	39.7	45.7
% of couples without children renting	19.5	23.2
% of single persons renting	30.7	38.0

Table 3.C.1: 1991 Census Indicators for Hurstville and Greater Sydney (Continued)

Indicator	Hurstville	Sydney
Housing (continued)		
% public housing	4.1	6.4
Outright owners as % of all owners and purchasers	69.4	60.3
% of renters with rent >\$108 per week	78.6	67.8
% of one-parent family renters with rent >\$108 per week	65.8	50.3
% of two-parent family renters with rent >\$108 per week	89.2	77.6
% of all purchasers paying >\$551 per month	60.4	61.9
% of two-parent family purchasers paying >\$551 per month	74.2	73.1
Average number of persons per occupied dwelling	2.73	2.81
% dwelling with 3+ bedrooms	59.5	64.5
Motor vehicles		
% of households with no motor vehicle	16.1	17.0
Number of motor vehicles per person aged 18+	0.65	0.65
% of two-parent families with 2+ motor vehicles	63.1	61.4
% of one-parent families with no motor vehicle	20.2	24.1
% of single person households with no car	45.1	45.5
Labour force		
Unemployment rate (%)	7.8	10.7
Unemployment rate, males aged 25-54 (%)	6.8	9.3
Unemployment, % persons aged 15-19	8.5	10.1
Unemployment rate among NESB males (%)	10.9	16.7
% of dependent children with no employed parent	12.9	18.9
Participation rate, females aged 25-54 (%)	74.0	70.1
Participation rate, males aged 25-64 (%)	70.1	66.1
Employed males, % employed by government	24.4	21.7
Employed females, % employed by government	23.5	23.3
Employed males, % self-employed	16.3	17.6
Employed females, % self-employed	8.6	10.4
Employed males, % high white collar occupations	34.9	35.9
Employed males, % low white collar occupations	18.5	17.2
Employed males, % blue collar occupations	46.6	46.9
Employed females, % high white collar occupations	27.0	29.8
Employed females, % low white collar occupations	57.8	53.6
Employed females, % blue collar occupations	15.1	16.6
Children aged 0-4 with both parents or sole parent employed	45.6	40.0
Children aged 5-12 with both parents or sole parent employed	59.3	52.8
% males travelling to work by private road vehicle	69.6	71.7
% females travelling to work by private road vehicle	57.0	62.9

Source: Derived from the public use file from the 1991 Census.

APPENDIX 3.D: Further Background Information on Aspects of Housing in Australia
Table 3.D.1: Number of Rooms by Dwelling Type: 1994

Number of Bedrooms	Separate house '000	%	Semi-detached/ row or terrace house/townhouse '000	%	Flat/unit/ apartment '000	%	Total(a) '000	%
Bedsitter/One	68.9	1.3	55.4	10.5	208	25.0	344.4	5.2
Two	756.7	14.3	274.9	52.1	533	64.0	1,568.5	23.5
Three	3,241.20	61.1	184.4	34.9	87	10.5	3,513.4	52.6
Four or more	1,233.90	23.3	13.3	2.5	4.4	0.5	1,251.6	18.7
	5,300.7	100.0	528	100.0	832.4	100.0	6,677.9	100.0

Note: (a) includes a small number of 'other' dwellings.

Source: ABS 1996a, *Australian Housing Survey, Housing Characteristics, Costs and Conditions*, Catalogue No. 4182.0.

Table 3.D.2: Income Units Who Started Purchasing Their Dwellings Between 1983 and 1988; Levels of Deposit as Percentage of Price and Median Amount Borrowed

Deposit as percentage of purchase price	Percentage of income units:		Median amount borrowed:	
	One-person units	All units	One-person units	All units
Less than 5	7.7	7.1	\$ 37,900	\$ 41,600
Between 5 and 15	16.8	15.2	43,500	46,700
Between 15 and 25	19.4	15.9	43,900	47,300
25 or more	56.2	61.9	36,500	40,500
Total	100.0	100.0	39,000	43,000

Source: ABS 1992b, *Social Indicators*, Catalogue No. 4101.0.

Table 3. D. 3: Need for Repairs, Australia: 1994

Need for repair	Renter				Total		Total %
	Owner %	Purchaser %	Public %	Private %	Total Renters(a) %	Other(b) %	
<i>Outside of the dwelling</i>							
No Need	73.5	62.8	61.2	61.3	61.7	62.1	66.9
Desirable	14.9	20.2	13.0	16.0	15.3	14.9	16.5
Moderate	8.9	12.1	13.9	15.9	15.2	15.5	11.7
Essential	1.9	4.3	7.7	5.4	5.8	5.6	3.7
Urgent	0.7	0.6	4.2	1.4	2.0	*2.0	1.1
<i>Inside the dwelling</i>							
No Need	77.5	64.9	54.6	53.4	54.3	64.4	67.3
Desirable	14.4	20.9	17.7	22.6	21.2	20.3	18.2
Moderate	6.5	10.5	12.8	14.9	14.2	10.8	9.9
Essential	1.3	3.1	9.3	7.0	7.3	3.5	3.5
Urgent	0.3	0.6	5.6	2.1	3.0	1.0(c)	1.3

Notes: (a) Includes 'other' and 'not stated'.
 (b) Includes 'rent free' and 'other' households.
 (c) subject to sampling variability between 25 per cent and 50 per cent.

Source: ABS, 1996a, *Australian Housing Survey, Housing Characteristics, Costs and Conditions*, Catalogue No.4182.0.

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CHAPTER 4: THE ENERGY BUDGET*

4.1 Introduction

The aim of the energy budget is to estimate the domestic energy requirements of different households at the low cost and modest but adequate levels, and to cost them at prices prevailing in February 1997. It is important to recognise at the outset that the size and structure of the household will have a major bearing on its energy requirements and thus on its energy budget.

In general, larger households require larger houses (particularly at a *given* standard of living), and larger houses in turn need more energy to operate. Similarly, households with adults in paid work may require different amounts of energy from similar households out of work, while older retired households may have different energy needs than younger households. Development of the household energy budgets is thus a complex task.

One simple way to estimate the energy that each household type needs to achieve a modest but adequate or low cost standard of living would be to use behavioural data on actual energy expenditure. However, this would mean that the budgets would reflect the circumstances that determine current patterns of energy usage, including for example the impact of any resource constraints that limit energy use. In contrast to this approach, the budget standards methodology is designed to provide an *independent* benchmark determined from the normatively determined energy (and other) *needs* of the household, against which the adequacy of incomes can be assessed.

For this reason, and ideally, the energy budget should not be based on data on actual spending behaviour, since spending on energy may be influenced by income and other resources available to the household. If it is, then the energy budgets could not be claimed to measure the cost of achieving a given standard, but rather would represent a reflection of the average energy spending that is achievable within existing resource constraints.

The analysis presented below shows that expenditure on energy is related to income, both through *energy consumption* and through the actual *energy prices* faced by the household. Particularly at low levels of income, energy expenditure will be constrained in ways which could damage health and well-being and therefore not represent an acceptable low cost standard as defined earlier.

Research undertaken by the Family Budget Unit (FBU) in the United Kingdom developed a budget for domestic heating based on normative standards for demand temperatures (Hutton and Wilkinson, 1992). The research was able to draw on a body of existing empirical studies that enabled the estimation of the energy required to achieve these demand temperatures, given assumptions about heating periods, heating systems, insulation levels and ventilation rates for

This budget was developed by Jenny Chalmers. The author and the Budget Standards Unit wish to acknowledge the advice and assistance provided by several individuals and agencies during the course of preparing this paper. In particular, special thanks are due to the Independent Pricing and Regulatory Tribunal of New South Wales who provided the data on which the energy budgets are based. Tribunal members Eric Groom, Michael Seery and Nicholas Hague have been especially helpful. Other individuals who provided information and advice were Campbell Aitken, Alan Pears, Monica Oliphant (of ETSA), Ian Baker (at Pacific Power), Bob Bartels, Gavin Dufty, Gorana Popovic (NSW Department of Housing), the information lines of Energy Australia and AGL, and to Keith Plastow (of the Office of Energy Policy in South Australia). The final text of the paper has benefited from the editorial advice and assistance provided by Jonathan Bradshaw, Peter Saunders, Denise Thompson and Don Siemon.

assumed dwellings. The energy needed for water heating, cooking, lighting and appliances was estimated using the Building Research Establishment Domestic Energy Model (BREDEM) which was itself based on behavioural data.

Initially, the BSU explored the possibility of deriving an indicative energy budget by setting physiologically-based normative standards for heating and cooling and then estimating the energy required to run the appliances allocated to the various household types in order to achieve these normative standards.

However, this approach proved to be impractical, because no Australian model has been developed to estimate the energy required to maintain the domestic housing stock at a particular target temperature. In addition, no detailed information on the usage and power demands of various appliances is readily available in Australia.

In light of these limitations, it was decided that the only practical method for estimating the energy requirements of each household was to develop a behavioural model of energy use and then to estimate its parameters from available survey data.

This method is closer to the ideal BSU approach than is the direct use of summary behaviour data, since it shows how, for example, the level of a household's financial resources affects its energy consumption, thus enabling an estimate of the effect of financial resources to be removed from the summary behavioural data. The details of the method and how the model was developed and estimated are now discussed.

4.2 Estimating the Energy Requirements of Households

There are many elements to be considered in estimating a household's energy requirements. Consider a single female living alone as she prepares and eats the food for an evening meal in winter. The preparation itself requires lighting, heating and hot water, in addition to the stove needed to actually cook the meal. Eating the meal requires lighting, heating and perhaps some electricity to listen to the radio or stereo as background music or to have the television on. Cleaning-up afterwards requires hot water and lighting.

There are no self-evident normative standards to guide the energy needs relating to how the meal should be prepared and eaten. A salad or a sandwich can be just as nutritious as a more extravagant and time-consuming meal, but does not require as much energy as a cooked meal. It is for these kinds of reason that development of the energy budget involves estimating energy needs from a behavioural model derived from consumption data. In doing this, efforts have had to be made to avoid the obvious danger of contaminating the estimates of energy needs by the constraints that reflect the resources available to the household.

The energy required is determined in part by a number of the assumptions already made as part of the budget standards project. The decision to develop budgets at the low cost and modest but adequate standards has influenced the selection of housing tenures, as explained in Chapter 2.

For example, on the assumption that it is realistic to assume that households at the low cost standard would not be in a financial position to buy their own home, they have been housed in rented flats rather than owner-occupied dwellings. Two scenarios have been assumed for households at the modest but adequate standard. In the first, they are housed in rented flats, while in the other they are assumed to be purchasers or home-owners.

As noted earlier, the BSU households have all been assumed to be living in Sydney. This decision has implications for many areas of the household budgets, including for the energy budget. Thus, for example, only around 20 per cent of rented flats in Sydney have access to cheaper energy rates, such as off-peak electric water heating or economy gas rates. In contrast, 75 per cent of households who own or are purchasing their home, purchase energy at these cheaper rates (AGB McNair, 1996).

It follows that by categorising low cost households as living in rented flats, it is implicitly assumed that these households have the most expensive form of water heating. As a consequence, a 'low cost' decision made in relation to housing tenure can result in a tendency towards *higher costs* in terms of the energy consumption of those households.¹

There are other consequences that follow from developing a budget standard based on households living in dwellings in a given area of Sydney which is therefore *geographically specific*. Nationally, the most important delivered energy forms in the residential sector are electricity (42 per cent of the total), gas (33 per cent) and solid fuels (24 per cent), the latter contributing significantly to space heating requirements in South Australia, Victoria and Tasmania (Energy Efficient Strategies, 1994). The use of solar energy takes up most of the remaining one per cent of energy use, although bottled liquid petroleum gas (LPG) also has a significant presence in most States.²

For the purposes of the energy budget, energy consumption is defined as the consumption of electricity and mains gas only. Not only does (the lack of) data availability warrant this decision, it is also a reasonable assumption for households living in the Hurstville area, since about 75 per cent of Sydney households rely entirely on mains gas and electricity for their energy.

If the budget was to represent energy requirements in other areas, *climatic differences* would need to be taken into account. The main impact of climate will be on requirements for space heating and cooling,³ although the climate also affects energy use by appliances such as refrigerators, pool heaters and water heaters, and is associated with different lighting needs.

Also, there are different *behaviour patterns* associated with energy consumption in different regions. Some States, for example, have a high penetration of electric space heaters, while others have mainly gas heaters. The *type of energy* used also varies by region, so that whilst gas is a common form of heating in New South Wales, reticulated gas is unavailable in Tasmania, where solid fuels make a substantial contribution to space heating.

Finally, *energy prices* vary significantly across the States and regions of Australia, and there are different behaviour patterns associated with these price differences.³ To account for this, albeit in a limited way, the energy budgets make allowance for some regional relativities in

¹ In fact, however, it does not. Although 'low cost' households pay more *per unit* for electric hot water heating than those who can afford an off-peak hot water system, they consume sufficiently less electricity that they pay less overall.

² There is some use of liquid fuels for space heating, outdoor equipment (e.g. lawn mowers) and for household generators in off-grid areas, but these are relatively small in scale. A lawn mower and fuel have been included in the household goods and services budgets of households with a garden (see Chapter 7).

³ For example, when the Hurstville housing stock used in this research was built in the 1920s, electricity was relatively cheap in comparison with gas, and the houses were stocked with electric stoves. This prompted the tradition of cooking with electricity, a tradition which has outlived its price advantage.

energy expenditure based on the calculations of Bartels, Fiebig and Plumb (1996) using ABS data collected in 1985-86 (ABS, 1988a).⁴

In order to discover a means of estimating the energy needs of different households, an extensive review has been undertaken of the available data sources. A summary of the findings of that review is presented in Appendix 4.A.

There is one particular source of data which meets the needs of the BSU research most closely. This is contained in *The Independent Pricing and Regulatory Tribunal of New South Wales Survey*, which is a survey of NSW households conducted by AGB McNair for the Independent Pricing and Regulatory Tribunal of New South Wales in 1996.⁵ (For convenience, the terms Tribunal and Tribunal Survey data will be used henceforth).

In the case of the 1996 survey, the sample consisted of 1,000 households, five from each of 200 Collector Districts (CDs) in the 1991 Census, randomly selected from the 47 Statistical Local Areas (SLAs) in the greater metropolitan area of Sydney, Newcastle and Wollongong.⁶ The survey investigated the energy, water and public transport usage of different types of households, with the aim of providing the Tribunal with the information necessary to assess the potential impact on households of changes to the pricing structures of utilities and public transport.

Not only does this survey supply information on household energy usage, the information is organised according to household characteristics, including income, dwelling type, family size and structure and property value. These characteristics are relevant to the household types which are the focus of the budget standards research.

One of the most important aspects of the survey, from the point of view of the BSU research, was that 85 per cent of the households surveyed gave approval for the release of their annual electricity billing data, and 82 per cent approved the release of their annual gas billing data. Hence, the survey supplies information on how much energy households actually used and paid for.

In using these survey results in the budget standards research, households were excluded from the data set if:

- permission for billing information was not given;
- the dwelling had been occupied for less than 12 months;
- consumption bills or records were of less than 12 months duration; or

⁴ Information provided to the BSU by an energy research scientist at ETSA (formerly the Electricity Trust of South Australia), suggests that the relativities will not have changed significantly since then.

⁵ A similar survey was conducted for the Tribunal by Rark Research in 1993, but of electricity usage only.

⁶ This greater metropolitan area includes the bulk of the NSW customers of AGL Gas Company (NSW) Ltd. At the time of the survey, the area as a whole was serviced by Prospect Electricity, Illawarra Electricity, Sydney Electricity and Orion Electricity. Sydney Electricity serviced metropolitan Sydney. Orion Electricity serviced the Newcastle area. Prospect Electricity serviced the Blue Mountains and Illawarra Electricity serviced the Wollongong area. Since the survey was conducted, Prospect Electricity and Illawarra Electricity have amalgamated to form Integral Energy, and Sydney Electricity and Orion Electricity have amalgamated to form Energy Australia.

- they were group households, i.e. they contained three or more adults, or two adults who reported not being partners, since these are not among the BSU household types.

After excluding these groups, the final sample size used in the analysis was reduced to 513 households.

Not all of the households in the final sample of 513 had similar characteristics to households living in the Hurstville LGA, and the survey did not differentiate households by suburb. The most detailed disaggregation of the data available is by electricity provider, and those households serviced by Sydney Electricity would be the closest approximation to Hurstville households. But because there are fewer households serviced by Sydney Electricity in the final sample (319), the whole sub-sample of 513 households has been used.⁷

Table 4.1 compares the energy consumption patterns of the households sampled in the 1996 Tribunal survey with ABS energy consumption data for 1984 and 1985-86. Although the ABS data are at least 10 years older than the data from the Tribunal survey, there is a remarkable similarity in the consumption patterns of electricity, which suggests that use of the survey data is unlikely to result in any substantial biases in the results.

4.3 Modelling Energy Consumption

As many as 30 or more individual types of electricity-using equipment and uses for electricity can be identified within a typical household. However, around 10 main uses account for about 90 per cent of total energy use. Some types of equipment have high levels of penetration (e.g. lighting, television and video recorders), but only use small amounts of energy. Other end uses, which have a low level of penetration (e.g. pool/spa heaters, pool pumps and bore water pumps) consume large quantities of electricity when they are present.

The major use of energy by households in Australia is in the control of internal temperatures through heating and cooling, which, as noted earlier, consumes an estimated 42 per cent of residential energy on average. Heating water for laundry, dishes, baths, showers, etc. accounts for nearly 27 per cent of residential energy end use, while cooking and refrigeration account for approximately 16 per cent.

A range of minor uses accounts for the remaining energy, lighting being the largest single component with just over three per cent (Energy Efficient Strategies, 1994). Where hot water is stored prior to use (in either electric, gas, solar or solid fuel systems) heat losses from the tanks contribute significantly to energy consumption, typically by adding 20 per cent to 30 per cent of total energy supplied to the water heater.

The Tribunal survey data allow for the estimation of energy consumption by households differentiated according to a number of characteristics. But there are insufficient numbers of respondents within each of the BSU's 46 basic household types described earlier to allow

⁷

In fact, when the sub-sub-sample of Sydney Electricity cases only were included as a dummy variable in the regression model, this did not make a significant contribution to explaining the variation in energy consumption. This suggests that, within the confines of the energy model developed here, the energy consumption patterns of Sydney households are much the same as households living in the Wollongong area, the Blue Mountains and the Newcastle area.

Table 4.1: Comparison of Energy Consumption of Households in the Tribunal's 1996 Survey with Households in the ABS Surveys of 1984 and 1985-86

	ABS data				Tribunal data	
	NSW		Sydney		Full sample(a)	Sydney sample(b)
	1984	1985-86	1984	1985-86	1996	1996
Percentage of total				Percentage of total		
Electricity consumption (KwH)						
0-2,999	12.4	11.9	13.0	13.5	12.7	14.1
3,000-4,999	18.7	18.9	18.2	20.3	18.4	20.3
5,000-6,999	21.1	20.6	19.9	20.2	20.8	21.3
7,000-8,999	20.1	18.2	19.0	17.2	19.0	18.5
9,000-10,999	14.1	13.5	14.1	12.9	11.4	9.7
11,000+	13.6	16.8	15.8	15.9	17.7	16.3
Gas consumption (MJ) ^(C)						
0	n/a	n/a	n/a	n/a	64.2	56.1
0-4,999	19.5	21.3	17.3	21.3	13.1	15.0
5,000-9,999	19.3	18.9	18.7	19.3	15.6	15.7
10,000-14,999	12.4	13.1	12.1	13.5	13.7	12.8
15,000-19,999	11.6	10.8	12.3	11.5	11.2	12.1
20,000-24,999	11.6	9.0	12.7	9.5	12.6	9.3
25,000+	25.6	27.0	26.9	25.0	33.8	35.1
Energy consumption (MJ) ^(C)						
0-9,999	5.9	5.2	5.0	5.2	4.2	4.4
10,000-19,999	22.1	21.7	19.5	21.3	17.0	17.6
20,000-29,000	29.6	28.8	28.5	28.1	27.1	26.3
30,000-39,999	23.4	21.3	23.7	21.5	21.7	19.7
40,000-49,999	10.8	11.9	13.4	12.7	14.6	14.4
50,000-59,999	4.4	11.1	13.4	11.2	5.8	6.3
60,000+	3.8	0.0	4.7	0.0	9.6	11.3

Notes: (a) Households living in Sydney, the Newcastle region, the Wollongong region and in the Blue Mountains.
 (b) Households serviced by Sydney Electricity.
 (c) Mega-joules (1 MJ = 3.6KwH).
 n/a = not applicable.

those estimates to be derived from the raw data directly. To overcome this difficulty, a multiple-regression technique has been used to estimate the effect of a set of independent variables on the household's energy use.

The specified regression model includes a parameter corresponding to each independent variable, from which an estimate of the effect on energy consumption of that independent variable, holding all other independent variables constant, can be derived. By then combining the parameter estimates of the independent variables relevant to a specific household type, it is possible to construct an estimate of that household's total energy consumption from the estimated regression model given its specified characteristics.

The independent variables included in the multiple regression analysis are household income, household structure, the number of bedrooms, (discussed in detail in Appendix 4.B), the type

of home (i.e. free-standing house, flat, or semi-detached dwelling), housing tenure, family type,⁸ the number and ages of children, employment status, appliances owned, fuel used for heating water, fuel used for heating and energy sources used.

The inclusion of household income in the analysis allows the relationships between the other explanatory variables and gas consumption to be analysed, holding income constant. In this way, the effects of income are artificially removed from the analysis. Consider the example of dwelling size: the owners of three-bedroom houses typically have higher incomes than the owners of houses with fewer bedrooms. Because interest focuses on the effect on gas consumption of the number of bedrooms independent of income, by controlling for income it is possible to explore the association between dwelling size and gas consumption.

The multiple regression analysis was undertaken separately for gas and electricity.⁹ Table 4.2 summarises the estimation results in the case of gas consumption. The following variables were statistically important explanators of gas consumption: housing tenure; the number of household members; the number of bedrooms; heating style; the form of energy used to heat water; and household income.

Notable for its absence from the list of statistically significant explanatory variables is the employment status of adults in the household. It was anticipated that households containing unemployed adults and/or adults not in the labour force would use more energy than households containing working adults, on the grounds that non-working adults would spend more time at home using heaters and other energy using appliances. This, however, was not borne out by the data.

Factors which increase gas consumption are: the number of household members using a gas stove; the number of bedrooms heated by gas heaters; the number of household members using gas hot water; and household income.¹⁰ Households living in flats use less energy than households living in semi-detached dwellings or houses.

In developing the energy budget, it has been assumed that households connected to the gas supply use a gas stove for cooking and gas for heating water. It has also been assumed that only those households in houses use gas heaters, since the Tribunal data show that a significant majority of flat dwellers with gas connections use electric heating.

As an example of how to interpret the results in Table 4.2, the estimates imply that a household which heats water with gas consumes 9,700 MJ of gas per year more than a household which heats water another way, all other things being equal. This can be described

⁸ Family type was classified into the following seven categories, derived from responses to a survey question asking which of the categories 'best describe your household structure': single people; young couple; young family; middle (age) family; mature family; older couple, no children at home; and mature single or widowed person.

⁹ Further details of the modelling of energy consumption using the Tribunal Survey data are provided in Appendix 4.C. The regression model includes the logarithm of household income as an explanatory variable. This enables one to see whether the change in gas consumption for a one dollar increase in income varies over the income distribution. The results imply that gas consumption is more sensitive to income changes for low income households than for high income households.

¹⁰ Strictly speaking, the impact of household size on gas consumption through the use of gas stoves (Table 4.2) is not statistically significant. This effect was, however, included in the model to maintain consistency with the electricity consumption model where, as Table 4.3 shows, the effect was significant.

Table 4.2: Coefficient Estimates from an OLS Regression for Annual Gas Consumption (MJ)

Explanatory variables	Estimated coefficients (t-statistics in parentheses) ^(a)
Constant	-8,761.7 (-1.326)
Gas hot water	9,699.8 (3.629)
Number of adult household members	2,244.9 (2.291)
Number of child household members	3,847.6 (5.040)
Cooking mostly used = gas stove	
Number of household members	520.5 (1.354)
Heating mostly used = gas	
Number of bed-rooms	2,585.7 (6.293)
Flat Dweller	-8,646.1 (-3.700)
Log income	1,195.9 (1.812)
Adjusted R-squared ^(b)	0.65200
Sample size	193

- Notes:
- (a) The t-statistic is the basis for testing the null hypotheses that the coefficient is equal to zero, i.e. whether or not there is a statistically significant relationship between the independent variables, such as whether or not the household has gas hot water, and the dependent variable, i.e. consumption of gas in MJ. A rule of thumb is that if the t-statistic is greater than 1.65 in absolute terms the coefficient is statistically significant (at the 10 per cent level of significance).
 - (b) The adjusted R-squared statistic is a measure of the proportion of the variation in the dependent variable (i.e. annual gas consumption) explained by variation in the independent variables with account taken of the number of explanatory variables. The measure ranges from 0 to 1, i.e. from a set of independent variables without any explanatory power to a set of explanatory variables which perfectly explains the variation in the dependent variable.

as the 'fixed consumption' of heating water with gas. There is evidence of economies of scale in the use of gas for water heating. Each adult consumes 2,245 MJ of water heating gas per year on top of the 'fixed consumption', so that the *average* gas consumption of a household member is lower in a two adult household than it is in a one adult household.

Interestingly, the results imply that each additional child adds 3,848 MJ of gas usage per year—more than the extra usage associated with each additional adult in the household. Even so, the economies of scale in the consumption of water-heating gas are still evident with the introduction of up to at least four children to the household. Each one per cent increase in household income adds 1,196 MJ to gas consumption. Overall, the regression model explains 65 per cent of the variation in gas consumption, a not unreasonable performance in the circumstances.

Table 4.3 reports the estimates from the electricity consumption model for standard and off-peak tariff electricity. The following factors were statistically important explainors of electricity consumption: the number of household members (again differentiating between adults and children); appliance ownership; form of heating; cooking style; housing tenure; income and the number of bedrooms. The estimated coefficients on adult's employment status variables were not statistically significant.

Table 4.3: Coefficient Estimates from OLS Regressions of Annual Electricity Consumption (KwH) for Households with Standard and Off-peak One Water Heating

	Standard	Off-peak 'one' water heating ^(a)
	Estimated coefficients (t-statistics in parentheses)	Estimated coefficients (t-statistics in parentheses)
Constant	175.3(0.140)	1,772.2(8.644)
Log income	229.1 (1.849)	
Electric hot water		
Number of adult household members	880.2(7.749)	642.2(8.469)
Number of child household members	353.3(1.744)	451.6(5.535)
Electric stove		
Number of household members	366.5 (5.239)	
Electric heating		
Number of bedrooms	226.4 (2.935)	
Ducted heating	3,100.1 (3.458)	
Drier		
Number of household members	252.4(3.791)	
Airconditioner	421.6(1.768)	
Dishwasher	1,511.2(6.051)	
Waterbed	1,460.7(4.024)	
Flat dwellers	-871.3 (-2.787)	
Adjusted R-squared	0.4269	0.3030
Sample size	553	217

Notes: (a) The two rates of off-peak water heating (off-peak 'one' and off-peak 'two') are explained in Appendix 4.E. Since the most popular rate is the cheaper (off-peak 'one'), this rate has been assumed.
See also the Notes to Table 4.2.

Unlike the case of gas consumption, there is no fixed consumption of electricity relating to water heating. However, there are economies of scale in water heating when the number of children in the household increases. Whilst adults use 880 KwH of electricity per year for water heating, each child uses only 353 KwH.

The amount of electricity used by households which cook primarily with electric stoves is proportional to the number of household members, as is the amount of electricity used by households which primarily use electric heating. Each of the four appliances: drier, air conditioner, dishwasher and water bed, add dramatically to annual electricity consumption, as does the existence of ducted heating.

Before the estimated models can be used to estimate the energy consumption of each of the BSU household types in Tables 4.2 and 4.3, assumptions have to be made for each household regarding its appliance ownership, the fuels it uses and the tariffs it is charged. Only once this has been done can the energy budgets be calculated using data on the prices of the various forms of energy in February 1997. These components of the research are considered in the following two sections.

4. 4 Appliance Ownership

As Fiebig and Woodland (1991) point out, 'one of the most important determinants of the level of gas, electricity and other fuels consumed is the pattern of ownership of appliances that use energy'(Fiebig and Woodland, 1991, p. 8).

Details of the specific appliances which have been allocated to each of the BSU households can be found in the household goods and services budgets described in Chapter 7 below. As explained there, none of the BSU households are allocated a dishwasher, airconditioning, waterbeds or ducted heating, while clothes driers are only allocated to households at the modest but adequate standard.

4.5 Energy Sources

Table 4.4 summarises trends since the mid-1980s in energy sources for heating water, for main heating and cooking. Over the past 10 years, there has been a trend towards substituting gas for electricity, one consequence of which has been that while the ownership of gas burners has increased slightly, the ownership of electric hotplates has fallen (ABS, 1988a; 1988b; 1991; and Tribunal, 1996). There has also been a dramatic decline in the proportion of households using electrical appliances as their main form of heating, from 68 per cent to 35 per cent of Sydney households (ABS, 1988a; 1988b; 1991; and Tribunal, 1996).

The move to gas as the primary source of heating, reflected in the increase from 12 per cent to 21 per cent among Sydney households, does not entirely account for this reduction. There has also been a substitution of gas hot water heating for 'peak' electric water heating (ABS 1988a; 1988b; 1991; and Tribunal 1996).

Roughly 40 per cent of Sydney households now use electricity only, whereas around a decade ago the proportion was 50 per cent. About one-third (34 per cent) now use a combination of electricity and gas, whereas 10 years ago only 24 per cent did. The remainder of the households use a combination of energy sources including wood, oil and solar.

Since there are similar proportions of Sydney households using both electricity only and a combination of gas and electricity, two energy budgets have been derived for each household, one based on the cost of supporting the energy needs of an all-electric household, and the other based on the energy costs for a combination of gas and electricity.

Table 4.4: Fuels Used by Households in Sydney: A Comparison of 1985-86 ABS Data with the Tribunal's 1996 Data

	Proportion of all households:	
	ABS 1985-86	Tribunal 1996
Households using:		
Off-peak electricity(a)	0.39	0.39
Gas	0.33	0.43
Oil	0.06	0.15
Solar	0.03	0.02
Main energy combinations:		
Electricity only	0.50	0.38
Electricity and gas	0.24	0.34
Electricity and wood	0.07	0.07
Electricity and oil	0.04	0.09
Electricity and solar	0.02	0.01
Other combinations	0.13	0.11

Note: (a) For water heating.

It has been assumed that the 'gas and electricity combination households' have a gas hot water system and a gas stove. Furthermore, combination households living in houses are assumed to have gas heating, whilst combination households living in units have electric heating.¹¹

On the basis of the above assumptions, it is necessary to determine the likelihood of an all electric household having off-peak water heating, and the likelihood of the gas/electric combination household having economy gas. Both involve substantial discounts on energy usage rates. Bartels (1988) claims that the main determinants of energy source are household size, income and dwelling type, three variables that are themselves inter-related. He found that 'peak' or 'standard' electric hot water was associated with smaller than average-sized households, while off-peak electric water heating was associated with larger than average households.

The likelihood of households accessing these cheaper rates of energy usage has been estimated by means of a form of discrete choice modelling known as the logit model used in previous studies of appliance ownership and energy consumption by Bartels (1988) and Fiebig and Woodland (1991). This estimation technique provides a guide to the contribution made by

¹¹

Gas is available in all suburbs in the Hurstville LGA, but usage patterns vary. According to local real estate agents, it is more than likely that the rental properties included in the BSU budgets would be connected to gas. The home purchasers and outright owners, however, would be less likely to use gas. As indicated in the description of the BSU housing budget in Chapter 3, public housing for the BSU households has been set in walk-ups on the Riverwood estate in the Hurstville LGA. The AGL estimates that roughly half of these households would be connected to gas; although less than half actually have gas stoves. Moreover, the NSW Department of Housing has a policy of installing electric stoves and electric heating in old-age pensioner housing built since the 1980s, because this is safer than gas.

each explanatory variable, and hence by each household type, to the overall explanation of the likelihoods.

The results of the logit modelling analysis are presented in Appendix 4.D. The analysis undertaken indicates that most households should have gas economy, except for the single woman and the single mother living in a flat, and the low cost public renter pensioner households (the single person and the couple). Of the all-electric households, all those living in a house should have off-peak water heating, although as noted earlier, only about 20 per cent of rented flats in Sydney have access to the cheaper energy rates.

4.6 The Household Energy Budgets

Table 4.5 presents the estimated energy budgets for each BSU household type, at both the low cost and modest but adequate levels which result from applying the methods described above. Although the budgets themselves were derived on an annual basis, in order to reflect seasonal variations which are significant, the estimates in Table 4.5 are expressed on a weekly basis by dividing the calculated annual budgets by 52.14.

The budgets have been calculated from the estimated gas and electricity consumption patterns discussed earlier, together with the household-specific allocations of appliance ownership and energy sources and February 1997 energy prices reported in Appendix 4.E.

Both the combined (gas and electric) and the all-electric budgets tend to increase with the number of household members although there are strong economies of scale in energy costs for the larger households. Thus, for example, the 'electricity only' energy budget for the modest but adequate couple with three children (household type H11) is between 2.2 and 2.5 times greater (according to housing tenure) than that for the single female (household type H1) despite containing five times as many individuals.

Both versions of the modest but adequate energy budget are slightly higher than the corresponding low cost budgets (without concessions) for private renters living in units, primarily because the modest but adequate households are assumed to have clothes dryers whilst the low cost households do not.

In the electricity only budgets, the cost of adding a male adult to a single female private rental household is \$3 per week at both standards of living. Similarly, each additional child adds a further \$2 per week to the household's energy costs. The energy budgets for house purchasers and outright owners are not always larger than those for households who are renting units, because purchasers and owners are assumed to be able to take advantage of discounted energy tariffs, whereas renters are faced with the constraint of their landlords' choice of hot water heater.

Because of the rather large number of factors that vary across the different estimates presented in Table 4.5, combined with the fact that each of them has an impact on the structure and level of energy use and hence the cost of the energy budget, it is very difficult to summarise the figures in any simple way that does not conceal as much as it reveals. Even the impact of having access to gas does not always result in a lower energy budget, indeed quite the reverse.

One general trend that has already been referred to is the tendency for considerable economies of scale in energy costs to exist. Put another way, per capita energy costs tend to decrease as

Table 4.5: The Estimated Energy Budgets by Household Type Using Prices at February 1997

	Tenure	House Type	Electricity only (\$per week)	Electricity and gas (\$per week)
Modest but Adequate				
HI: Single female 35 years	Private Renter	1 bedroom unit	7.80	8.40
	Purchaser	2 bedroom unit	8.24	8.84
H ₂ : Couple — male 40 years female 35 years	Purchasers	2 bedroom pre-war bungalow	11.66	13.22
	Private Renter	1 bedroom unit	10.72	9.27
H ₃ : Couple — male 40 years, female 35 years, girl 6 years, boy 14 years	Purchasers	3 bedroom pre-war bungalow	15.16	16.35
	Private Renter	3 bedroom unit	15.38	12.79
H ₄ : Single female — 35 years, girl 6 years	Purchaser	2 bedroom pre-war bungalow	11.52	13.52
	Private Renter	2 bedroom unit	10.13	10.43
H ₅ : Aged female — 70 years	Outright Owner	3 bedroom pre-war bungalow	8.69	10.68
H ₆ : Aged couple — both 70 years	Outright Owner	3 bedroom pre-war bungalow	10.36	11.70
H ₇ : Couple — male 40 years, female 35 years, girl 6 years	Purchasers	3 bedroom pre-war bungalow	13.63	15.03
	Private Renter	2 bedroom unit	13.05	11.03
H ₈ : Couple — male 40 years, female 35 years, boy 14 years	Purchasers	3 bedroom pre-war bungalow	13.63	15.03
	Private Renter	2 bedroom unit	13.05	11.03
H ₉ : Couple — male 40 years, female 35 years, girl 3 years	Purchasers	3 bedroom pre-war bungalow	13.63	15.03
	Private Renter	2 bedroom unit	13.05	11.03
H ₁₀ : Couple — male 40 years, female 35 years, girls 3 and 6 years, boy 14 years.	Purchasers	3 bedroom pre-war bungalow	16.68	17.67
	Private Renter	3 bedroom unit	17.28	14.12
H ₁₁ : Couple — male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	Purchasers	3 bedroom pre-war bungalow	18.21	18.99
	Private Renter	3 bedroom unit	19.17	15.44
H ₁₂ : Single female — 35 years, girl 6 years, boy 10 years	Purchasers	3 bedroom pre-war bungalow	13.49	15.34
	Private Renter	3 bedroom unit	12.46	12.46
Low Cost (without concessions)				
H ₁ : Single female 35 years	Private Renter	1 bedroom unit	7.31	7.91
H ₂ : Couple — male 40 years female 35 years	Private Renter	1 bedroom unit	9.73	8.29
H ₃ : Couple — male 40 years, female 35 years, girl 6 years, boy 14 years	Private Renter	3 bedroom unit	13.42	10.83
H ₄ : Single female — 35 years, girl 6 years	Private Renter	2 bedroom unit	9.15	9.45
	Public Renter	2 bedroom walk-up	9.15	9.45
H ₅ : Aged female — 70 years	Outright Owner	3 bedroom pre-war bungalow	9.95	12.20
	Public Renter	pensioner housing	7.31	7.91
H ₆ : Aged couple — both 70 years	Outright Owner	3 bedroom pre-war bungalow	11.12	11.25
	Public Renter	pensioner housing	9.73	8.60
H ₇ : Couple — male 40 years, female 35 years, girl 6 years	Private Renter	2 bedroom unit	11.58	9.56
	Public Renter	2 bedroom unit	11.58	9.56

Table 4.5: The Estimated Energy Budgets by Household Type Using Prices at February 1997 (Continued)

	Tenure	House Type	Electricity only (\$per week)	Electricity and gas (\$per week)
H ₈ : Couple — male 40 years, female 35 years, boy 14 years	Private Renter	2 bedroom unit	11.58	9.56
H ₉ : Couple — male 40 years, female 35 years, girl 3 years	Private Renter	2 bedroom unit	11.58	9.56
H10: Couple — male 40 years, female 35 years, girls 3 and six years, boy 14 years.	Private renter	3 bedroom unit	14.82	11.66
H11: Couple — male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	Private renter	3 bedroom unit	16.22	12.49
H12: Single female — 35 years, girl 6 years, boy 10 years	Private Renter	3 bedroom unit	10.99	10.99
		Low Cost (with concessions)		
H4: Single female — 35 years, girl 6 years	Private Renter	2 bedroom unit	7.40	7.43
	Public Renter	2 bedroom walk-up	7.40	7.43
H ₅ : Aged female — 70 years	Outright	3 bedroom pre-war	8.20	10.19
	Owner	bungalow	5.56	5.90
H6: Aged couple — both 70 years	Public Renter	pensioner housing		
	Outright	3 bedroom pre-war	9.37	9.23
	Owner	bungalow	7.99	6.59
H12: Single female — 35 years, girl 6 years, boy 10 years	Public Renter	pensioner housing		
	Private Renter	3 bedroom unit	9.25	8.97
	Public Renter	3 bedroom unit	9.25	8.97

the number of household members increases. Another general feature of the budgets worth drawing attention to is the fact that there is not a great deal of difference between the low cost and modest but adequate budgets for many household types.

Low cost and modest but adequate households are assumed to use the same amount of energy for cooking and heating their homes to the same level of temperature, for example. While low cost households tend to have fewer energy using appliances and live in smaller homes than modest but adequate households they tend to face higher charges for energy.

4.7 Geographical Variation

One of the tasks facing the budget standards research team is to consider how the budgets can be customised so that they apply to household types other than those for which they were originally derived.

Several dimensions of the customisation exercise are being addressed, but one that is important concerns geographic location: How might the budgets that are derived for households living in

a particular location be varied to reflect how costs change with location? What follows is a brief description of some possible causes of geographical variation in household energy needs within Australia, and a suggested method for regional adjustment of the energy budget.

Climate is clearly a major influence on household energy needs in the different regions around Australia. According to Energy Efficient Strategies (1994), the main impact of climatic variation is on requirements for space heating and cooling, although even within a single region, heating and cooling requirements will vary depending on differences in such factors as dwelling construction materials, building orientation and the amount of glazing. Climate also affects the energy consumption of key appliances such as refrigerators and water heaters.

There are also variations in the prices of different energy sources and not all forms of energy are available everywhere in Australia. For example, cheap natural gas is widely available in Sydney, Melbourne, Adelaide, Canberra and Perth, and in many provincial towns in Victoria, South Australia and NSW, while elsewhere households have to depend on electricity and solid fuels for their energy needs. The prices of each energy source also vary geographically, both between States and within each State, for example as between rural and urban areas.

Suggestions for a method of modelling regionally sensitive estimates of household energy costs can be found in the work of Bartels, Fiebig and Plumb (1996). This research attempted to ascertain which was the more expensive form of domestic energy supply—gas or electricity. Although reticulated gas is cheaper than electricity in every State in which it is available, gas appliances are generally less efficient than electrical appliances.

Using the *National Energy Survey, 1985-86* (ABS, 1988a) the authors constructed regional estimates of expenditure on energy for room heating, water heating and cooking. These estimates are shown in Table 4.6. The regional relativities inherent in these energy expenditure estimates provide an initial basis for adjusting the energy budgets presented in Table 4.5 from being Sydney-based to applying to other regions of Australia.

Table 4.6: Total Energy Expenditure on Main Heating, Cooking and Water Heating for Least Cost, All-electric and All-gas Households (\$ per week in 1985-86)

Region	Least cost	All electric	All gas	Household type
Sydney	4.50	4.62	5.56	
Rest of NSW(a)	4.07	4.07	5.12	
Melbourne	5.22	6.35	8.09	
Rest of Victoria	4.91	6.14	7.27	
Brisbane(a)	4.03	4.03	4.60	
Perth(b)	4.33	5.56	5.58	
South Australia	4.49	5.45	6.23	

- Notes:**
- (a) Based on cooking and water heating only.
 - (b) There is no off-peak water heating, hence standard tariff electric water heating is used.

Source: Bartels, Fiebig and Plumb (1996).

Thus, for example, Table 4.6 indicates that the weekly cost of energy in the 'all electric' NSW households living outside of Sydney is only \$4.07 compared with an average cost to corresponding Sydney households of \$4.62. From these estimates, it is possible to derive an estimated non-Sydney energy budget as being equal to 88 per cent ($4.07/4.62 = 0.88$) of the estimated energy budget for Sydney residents.

Application of these ratios derived from the estimates in Table 4.6 to the household energy budgets in Table 4.5 thus provide an initial exploratory method for customising the budgets to allow for regional variations in energy costs. The method is, however, preliminary only and further research would be needed to provide a better basis for incorporating regional variations into the energy budgets in Table 4.5.

4.8 Summary

The methods described here have allowed an energy budget to be derived in the face of very severe obstacles in relation to the lack of articulated norms for energy need in Australia today. The methods have drawn on previous research into appliance ownership and energy consumption patterns and have utilised a unique data set on the energy consumption patterns of a large sample of households living in the greater Sydney area. With the help of some sophisticated econometric modelling, budgets for each of the household types that are being studied in the budget standards research have been derived.

Table 4.7 compares the average energy expenditure of households as reported in the Tribunal's data set with the BSU energy budgets for the corresponding households. It should be noted that energy prices were higher in February 1997 than when the Tribunal's survey was undertaken.

Table 4.7: Comparison of Average Energy Expenditure of Households in the Tribunal's 1996 Survey with Electricity Only Budget Standards Households in February 1997 (\$ per week)

Household Type	Tribunal's Data	BSU energy budgets:	Low Cost (with concessions)	Modest but Adequate
Young singles living alone	8.00		7.00	8.00
Sole parents	13.00		7.00-9.00	10.00-13.00
Young couples without children	14.00		10.00	12.00
Young couples with children	15.00		12.00-16.00	13.00-19.00
Old single people	9.00		6.00-8.00	9.00
Old couples	14.00		8.00-9.00	10.00

This acknowledged, one might expect to see that the low cost budgets fall below the Tribunal's average expenditures, with the modest but adequate budgets more in line with the Tribunal's averages.

In fact, while the low cost budgets do fall below the corresponding Tribunal averages, the modest but adequate budgets are generally in line with the tribunal's average, although the

modest but adequate budgets for the working age couple without children and the retired couple are below.

Consideration of the relativities suggest that the BSU energy budgets exhibit greater economies of scale when moving between one- and two-person (adult or child) households than do the Tribunal figures. However, the Tribunal data exhibit greater economies of scale for households with three or more members than do the derived energy budgets. In general, the comparisons in Table 4.7 suggest that the BSU energy budgets provide a reasonable estimate of the cost of securing energy needs at both the low cost and modest but adequate standards.

APPENDIX 4.A: A Review of Other Research

There are a number of research projects and surveys which initially seemed as though they might provide some information which would enable decisions to be made about aspects of the BSU energy budget. On closer investigation, however, they turned out to be unhelpful for various reasons.

The first household energy survey undertaken in Australia, conducted by ABS in South Australia in 1979, was a prototype which collected data on appliance holdings, consumption and socio-demographic factors (ABS, 1979). The ABS has since undertaken a series of national energy expenditure surveys; in 1980 (ABS, 1981), in 1982-83 (ABS, 1983) and in 1985-86 (ABS, 1988a; 1988b). The last two surveys collected national data on the ownership of appliances, the types of fuels used, and demographic data on around 20,000 households. In the two most recent surveys, gas and electricity consumption records for each household were matched to the survey data.

Supplementary surveys were carried out by the ABS in New South Wales (ABS, 1985; 1991), South Australia (ABS, 1990) and Western Australia (ABS, 1994). However, these surveys were deemed to be of little use for development of the BSU energy budgets, being outdated, and the data from them were therefore used only for the purposes of comparison. No national survey of energy has been undertaken since 1988.

In Victoria, the Gas and Fuel Corporation (GFCV) and the State Electricity Commission (SECV) both conducted surveys during the 1970s and 1980s for the purpose of developing end-use models of energy consumption. These two instrumentalities combined to carry out comprehensive joint surveys on a biennial basis between 1985 and 1993. The results of these surveys are not currently available to the public, however, and the data were, in any case, restricted to Victoria.

A biennial survey has also been conducted by the Queensland Electricity Commission (QEC), in conjunction and cooperation with Queensland's seven regional electricity boards (QEC, 1993).

The New South Wales energy authority has been involved in two extensive household metering surveys of samples of households in New South Wales; the Domestic End-Use Study (DES), undertaken in 1986-87 and the Residential End-Use Study (RES) undertaken in 1993. The purpose of both studies was to enable NSW electricity suppliers and authorities to improve the management of their system loads, by providing them with information about hourly, daily, weekly and seasonal variations in energy usage.

As the most recent of these two surveys, the RES—undertaken by Pacific Power and the electricity distributors in NSW and ACT—initially seemed as though it might be a rich source of data to inform the development of the energy budget. The data were collected by means of data-logging equipment installed in 290 households in NSW and ACT, with the equipment recording not only the total domestic load for each household, but also the loads for individual appliances.

This should have enabled a break-down of how much was spent on particular household activities such as ironing, cooking and water-heating, but unfortunately the recording of appliance usage was not consistent between households because the same appliances were not logged in all households which had them.

Moreover, the sample was not random since the survey over-sampled heavy users of electricity (households which tend to be either large or relatively affluent, or both). Furthermore, no information on expenditure on gas was collected. A sub-sample of the RES has been analysed by Barrels and Fiebig (1996), but the results of their analysis are not relevant for the BSU energy budget, as they focus on describing appliance usage on a community-wide basis rather than analysing household-specific usage.

There are other surveys of the energy consumption of different income groups and the effects of price rises on these groups, including one conducted for the Energy Authority of NSW in 1983 (Australian National Opinion Polls, 1984), and another conducted for the Victorian government in 1981 (Department of Minerals and Energy, 1985).

Both surveys were again considered to be too outdated for use in informing the budget standards research. The SA Energy Corporation has also undertaken an end-use study of low income households in an Adelaide housing estate, although preliminary results of that survey were not available in time to be used in the research.

Although data collected in the ABS survey referred to earlier (ABS, 1988a) indicate the time spent using major appliances by household size and State, it does not provide details of the appliance capacity or control settings, and hence how many kilowatt/hours or mega-joules a household uses. Without such information, it is not possible to estimate how much the household pays for the energy it uses from these data.

APPENDIX 4. B: Predicting the Number of Bedrooms by Household and Home Type

In developing the energy budget, it has been assumed that the size of the home has implications for the amount of energy used since, for example the larger the house the more hot air is required to fill it. A useful proxy for the size of the home is the number of bedrooms.

However, this variable was not included in the Tribunal's 1996 data set. Since it was included in the Tribunal's 1993 survey, a simple model for explaining the number of bedrooms using the earlier data set was estimated and used to impute the number of bedrooms for each household in the 1996 data set.

The estimated parameters of the model are presented in Table 4.B. I. For example, the number of rooms, predicted by the model, for a young family with two children living in a house valued at \$200,000 is $1.194 + (9.862E -06 \times 200,000) + .325 + .210 + .956$, that is five.

Table 4.B.1: Estimated Coefficients From an Equation Explaining the Number of Bedrooms

Explanatory variable	Coefficient (t-statistic in parentheses)
Constant	1.194(9.750)
Income	9.862E-06(9.750)
Family type	
Young couple no children	0.200(1.730)
Young family	0.325(2.314)
Middle-aged family	0.611(4.360)
Old family	0.689(5.324)
Sole parent	0.575(3.387)
Old single no children	0.387(3.658)
Old couple no children	0.617(6.084)
Children	
One child	0.155(1.492)
Two children	0.210(2.031)
Three children	0.508(4.533)
Four + children	0.877(7.238)
Housing	
Separate house	0.956(16.013)
Semi-detached	0.465(5.497)
Adjusted R-squared	0.42169
Sample size	1,513

Notes: See Notes to Table 4.2.

APPENDIX 4.C: The Bivariate Analysis of Energy Consumption in the Tribunal's 1996 Survey

This Appendix summarises the relationships between household energy consumption, expenditure on energy and a number of factors that were considered to play a part in determining a household's energy bill. Table 4.C.1 suggests that there are differences between the consumption and the expenditure patterns of households serviced by Sydney Electricity and the rest of the sample included in the Tribunal survey.

The Sydney Electricity households have a higher average consumption of energy than the sample as a whole, but smaller average costs. Whereas the mean consumption of energy by Sydney Electricity customers amounted to 3,4927MJ, for which they paid \$796.69 on average, the mean consumption for the whole sample was 3,4083MJ and the mean expenditure \$806.67. Thus whereas Sydney Electricity customers paid 2.28 cents per MJ, the whole sample paid 2.37 cents.

Nonetheless, the crucial cost for a household is the *marginal* cost, i.e. the cost of an *extra* MJ of energy. When making decisions about any additional consumption of energy, the household will in theory consider this marginal cost as the relevant price it faces. During the period when the survey was conducted, electricity consumers were faced with a tiered system of tariffs, i.e. the cost per MJ increased as consumption increased, which implies that the *average* cost to the consumer was in general below the marginal cost.

As might be expected, energy consumption increases with income. It also increases with the number of bedrooms in the home. One would expect there to be a relationship between income and the size of the home. The multiple regression technique controls for this relationship so that it is possible to estimate, for example, the effect of income on energy consumption for, say, a three-bedroom home.

Young single people living alone consume the least energy and spend the least on energy. Older single people are ranked second lowest on both criteria, followed by couples, both young and old, without children. Couples with children both use the most and spend the most on energy. This is clear evidence that energy consumption and expenditure are related to household size. They are also related to the age of the household members, with middle-aged families using the most energy and spending the most on energy bills.

With regard to type of dwelling, free-standing houses use the most energy and are the most expensive to run, whilst flats use the least and are the cheapest to run. Public renters use the least electricity and pay the least for the electricity they do use. In contrast, home buyers use the most and spend the most.

There appear to be no economies of scale in relation to energy consumption by adults. Adults save nothing in terms of energy costs by living in a couple relationship rather than alone. Young childless couple households consume almost exactly twice as much energy as young singles living alone (Table 4.C.1). However, children consume less energy than adults, and subsequent children add as much as, or more to energy costs than, the first child.

Results of the multiple regression analysis suggest that there are economies of scale in the consumption of energy for heating water. The conflicting evidence highlights the need to use *multiple* regression analysis to isolate the effect of one variable, in this case household size, on another i.e. energy consumption.

Households using gas consume more and spend more on energy than households who do not use gas. Although gas is cheaper per unit than electricity, it tends to be used more by the

better-off households, who use more energy in total than the less well-off, partly because they can afford to, and partly because gas appliances tend to be less efficient than electrical appliances.

The households using the least energy and spending the least are those paying the 'standard' or 'peak' electric hot water tariff. Although this rate is higher than the off-peak rates, those who use it tend to be poorer than those who use the standard off-peak rates and low energy consumption is related to low income.

Because the initial cost of the appliances is less, and because these tend to be the appliances installed in rental accommodation, those on low incomes often do not have the option of being able to access off-peak rates. Households using the most energy and spending the most are those with gas hot water systems. Once again, the connection here is probably with income, in that only the better-off can afford to install gas storage hot water systems.

The implications of employment status for energy consumption are not clear from the survey data. It is possible that working households may use less energy than non-working households because they tend to spend less time in the home. But women who are not in paid work also tend to live in households with children (apart from the single woman in the low cost household, HI), a factor which increases energy consumption. Nonetheless, the energy consumption of single adult families in the Sydney Electricity sample is lowest when the adult is working full-time.

On the other hand, the energy consumption of Sydney Electricity couples is lowest for those households in which neither of the adults are in paid work. In this case, however, the determining factor is most likely to be income, or rather the lack of it, since among working couples not constrained by income, energy consumption is lowest when both adults work full-time. As might be expected, households with air-conditioners, dishwashers, water-beds or clothes driers use more energy and spend more on energy than those without.

Other factors that should be borne in mind when interpreting the survey results include the fact that the level of household income was self-reported in the survey, in the same bands as those shown in Table 4.C.I. In addition, 'household structure' is constructed from the answers to several questions in the survey, including the number of household members, whether each member was aged less than 15 or aged 15 and over, and family type.

The terms 'young families', 'middle aged families' and 'old families' are indicative of the respondents' stage in the life course and are pointers to the ages of the children in these families. It is the 'young families' which are most clearly representative of the BSU household types, since these are the families with children less than 15 years of age. Of these young families in the survey, 94 per cent only had children aged less than 15.

Both the 'home type' and 'tenure' variables included in the data set are relevant to the differentiation of the BSU household types. 'Children' is a composite variable describing the number of children, and their ages within the limits of the data set, which records only whether the child is aged less than 15 (in which case they are designated as 'young') or whether they are aged 15 or over.

'Employment status' describes whether the adult household members are working full-time, working part-time or not working. The Tribunal data do not differentiate between those not working because they are unemployed and those not in the labour force, and it is therefore not possible to ascribe differences in the energy consumption of these two groups to differences in their labour force status.

Table 4.C.1: Annual Energy Consumption and Expenditure on Energy of Households in the Tribunal's 1996 Survey

	Energy expenditure (\$)		Energy consumption (MJ)	
	Full sample(a)	Sydney Sample ^(b)	Full sample(a)	Sydney Sample ^(b)
Mean	806.67	796.69	34,083	34,927
Household income group (\$)				
0-10,000	588.77	566.32	23,380	23,447
10,000-14,999	688.61	713.18	27,136	28,304
15,000-19,999	745.63	592.67	29,494	26,426
20,000-24,999	734.14	702.65	29,858	29,269
25,000-29,999	815.21	690.38	33,740	28,054
30,000-34,999	788.15	765.08	34,321	35,799
35,000-39,999	826.01	843.72	36,950	38,077
40,000-49,999	787.65	799.27	34,479	36,708
50,000-54,999	870.65	816.64	38,578	37,947
55,000-59,999	822.44	891.20	32,834	36,087
60,000-74,999	914.01	871.27	38,421	38,174
75,000-99,999	841.71	837.31	37,109	37,291
100,000+	1,171.99	1,175.50	52,108	53,264
Refused	862.76	837.67	37,999	38,130
Household structure				
Young singles living alone	403.71	412.74	15,688	16,018
Sole parents	758.80	654.31	31,706	28,215
Young couples, no children	704.61	717.86	30,500	32,163
Young family	801.96	806.70	36,413	38,339
Middle family	1,001.18	966.19	44,954	46,415
Mature family	982.54	991.41	41,233	42,232
Old singles, no children	472.15	478.30	16,920	17,023
Old couples, no children	727.09	734.70	28,529	31,475
Singles sharing	654.34	647.41	25,131	24,160
Number of bedrooms				
1	473.86	460.76	4,584	5,828
2	515.8	524.20	3,957	3,816
3	789.5	784.48	6,620	8,633
4+	1,095.38	1,063.43	13,026	15,756
Home type				
Separate house	858.74	874.90	36,902	39,724
Semi-detached	754.98	763.10	31,024	30,841
Flat	499.24	508.07	17,571	17,988
Tenure				
Public renter	639.06	553.17	26,831	21,579
Private renter	706.67	687.49	27,238	28,151
Homeowner	829.34	816.02	34,584	35,506
Buying	841.11	843.75	37,702	39,032
Children^(c)				
No children	719.82	727.57	29,123	31,294
One child	823.92	813.86	35,043	36,344
Two children	948.50	723.33	41,630	41,764
Three children	1,040.69	1,066.55	47,195	51,462
Four + children	1,258.79	1,346.34	55,297	57,893

Table 4.C.1: Annual Energy Consumption and Expenditure on Energy of Households in the Tribunal's 1996 Survey (Continued)

	Energy expenditure (\$)		Energy consumption (MJ)	
	Full sample(a)	Sydney Sample ^(b)	Full sample(a)	Sydney Sample ^(b)
Employment status				
Single, not working	522.93	494.99	19,790	18,230
Single, working part-time	676.60	392.20	26,531	15,339
Single, working full-time	444.06	438.55	16,679	14,736
Couple neither working part-time/not working	721.84	713.94	28,611	30,092
full-time/not working part-time/part-time	854.72	846.23	36,679	40,319
part-time/full-time	856.77	876.27	37,950	29,394
full-time/full-time	1,014.52	1,042.27	43,219	45,570
	925.32	909.63	41,526	43,065
	951.61	969.26	41,165	42,362
Appliances				
Airconditioner	900.81	924.44	37,095	39,829
No airconditioner	756.20	753.93	32,468	33,286
Dishwasher	988.12	1,010.08	43,092	45,457
No dishwasher	698.11	653.69	28,693	27,870
Water bed	1,002.34	1,079.49	43,736	48,567
No water bed	781.51	770.54	32,842	33,666
Drier	889.33	895.53	38,090	39,776
No drier	654.33	623.72	26,725	26,442
Mostly use gas stove	796.08	804.92	38,953	39,837
Do not use a gas stove	810.29	792.88	32,416	32,652
Heating				
Gas heating	920.50	966.94	45,987	49,648
Electric heating	717.04	691.92	28,201	28,193
Reverse cycle heating	863.70	827.12	34,229	32,839
Ducted heating ^(d)	1,241.66	1,326.68	51,760	56,117
No heating	646.80	650.45	23,576	23,930
Energy source				
On gas	872.10	880.63	41,848	42,501
economy gas	914.88	947.75	48,401	50,729
not economy gas	828.00	812.55	35,095	34,153
Not on gas	770.46	731.87	29,786	29,078
Hot water gas	846.35	850.55	42,085	42,566
Hot water (off-peak one) ^(e)	801.55	815.51	34,947	35,967
Hot water (off-peak two) ^(e)	1,018.89	None	39,230	None
Hot water (normal)	735.36	697.88	24,988	23,674

- Notes:**
- (a) Households living in the Newcastle region, the Wollongong region and in the Blue Mountains.
 - (b) Households serviced by Sydney Electricity.
 - (c) Households containing one adult are excluded for the purposes of making comparison easier.
 - (d) Gas fuelled, electric fans
 - (e) The Tribunal survey does not include any Sydney Electricity customers on the off-peak two rate, nor any Orion Electricity customers on the off-peak one rate. Off-peak one is the cheapest rate whilst 'normal' is the dearest.

APPENDIX 4.D: Explaining Energy Source

This Appendix contains information on the estimated probability that an 'electricity-only household' will have off-peak water heating and the probability that a 'gas and electric household' will be able to access gas at the economy rate. The probabilities are calculated from the parameter estimates derived from a logit model which was run on the 1996 Tribunal survey data.

The logit procedure provides an estimate of the change in the probability of owning the relevant appliance given a change in each of the explanatory variables in the model, holding all other factors constant. Table 4.D.1 presents a list of the independent variables used in the analysis and their respective sample mean values.

Table 4.D.1: Sample Means of the Explanatory Variables

Explanatory variables	Mean
Property value	\$233,356.4
Income	\$43,328.7
	\$37,500 (median)
Family Type	
Old single, no children	0.12
Old couple, no children	0.17
Middle-aged family	0.18
Young single, no children	0.04
Young couple, no children	0.07
Employment status	
Couple, neither working	0.16
Housing Tenure	
Owner	0.52
Purchaser	0.25
Renter	0.23
Public Renter	0.06
Private Renter	0.17
Home Type	
Flat	0.14
Separate house	0.79
Semi-detached	0.07
Number of children	1.18
Child present	0.56
Gas available	0.56

The changes in probability reported in Tables 4.D.2 and 4.D.3 are calculated from the parameter estimates of the logit model.

Table 4.D.2: Change in the Probability of Having Off-peak 'One' Water Heating for a Household Not Using Gas

Base line probability	0.376
Public renter	0.307
Couples, both working full-time	0.173
Purchasers	0.176
Owners	0.173
Flat dwellers	-0.460
Semi-detached dwellers	-0.272

Table 4.D.3: Change in the Probability of Having Gas Economy for a Household Using Gas

	Percentage point
Base line probability	0.020
Young couple, no children	0.434
Young family	0.233
Four plus children	0.263
Owners	0.322.
Flat dwellers	-0.415
Gas Hot Water	0.586
Mostly use a Gas Stove	0.270
Mostly use an Electric Stove	0.278
Hot water is Off-peak (One)	-0.337

APPENDIX 4.E: Pricing Energy Consumption

Electricity

The prices charged by Energy Australia in February 1997 are as follows.¹² The access or service availability charge is 16.44 cents per day, or 14.79 cents per day for those with pensioner concession cards. The tariff per Kwh of non water heating energy is 10.15 cents per Kwh.

For heating water in single-element heaters there are the three tariff rates:¹³

- off-peak one is the cheapest, in which the water is heated for eight hours at night (3.72 cents per Kwh);
- off-peak two is the next cheapest, in which the water is heated for 16 hours (6.76 cents per Kwh); and
- standard rate, in which the water is heated continuously (30.15 cents per Kwh).

A rebate for those with pensioner concession cards equal to \$21.25 per quarter is available and in addition there are other rebates for people with certain medical conditions. Energy Assistance Programme (EAPA) vouchers for the electricity bills of households in financial crisis can be obtained from places such as Life-line, the St. Vincent de Paul Society and the Smith Family.

Each voucher is valued at \$30 and a household can obtain more than one voucher per bill, depending on the severity of its financial crisis. Definite information could not be obtained on the demographic characteristics of EAPA voucher recipients. According to the Smith Family, recipients tend to be pensioners and beneficiaries. Although the Smith Family itself usually provided no more than half the total cost of the bill in vouchers, recipients could also go elsewhere.

Since a very small number of families make use of the medical rebates, they have not been included in the budgets. It is assumed that low cost sole parents and retired households have pensioner concession cards.

¹² During 1996, Energy Australia introduced a 'Domestic Powersmart' tariff, whereby tariffs vary according to the time of day. The highest rate is from 5.00pm to 8.00pm every day (when the rate is 16.20 cents per Kwh), whilst the lowest rate applies from 10.00pm to 7.00am during weekdays and from 8.00pm to 5.00pm on the following day on weekends (when the rate is 4.02 cents per Kwh). The mid-rate (which applies at all other times) is 10.75 cents per Kwh. To be eligible for these rates (which appear to be the cheapest way of buying electricity), customers must make arrangements for suitable electronic metering to be installed. Energy Australia also usually requires that the customer make a non-refundable capital contribution towards the cost of installing metering equipment, the service charge is 22.58 cents per day. It is assumed that none of the BSU households access this tariff, because no information is available on the demographics of the households who do use it.

¹³ Single-element heaters are those in which there is one element situated at the bottom of the tank. They are the majority of heaters. In tanks with two elements, the top element is turned on when the hot water runs out and it only heats the top section of water in the tank.

Gas

The standard pricing schedules for domestic use of gas are as follows.

The access fee is:

- general rate of \$ 14.40 per quarter; and
- the economy rate of \$18.60 per quarter.

The corresponding tariffs per MJ of consumption are:

- economy rate: 0.9952 cents; and
- general rate: 1.3155 cents.

To qualify for the economy rate, the household must have a storage hot water system or a flued heater. A rebate for those with pensioner concession cards of \$14 per annum is also available. It was assumed that sole parents and retired households at the low cost standard receive this concession.

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CHAPTER 5 : THE FOOD BUDGET*

5.1 Introduction and Overview of Methods

The food budget described in this paper is a core element of any household budget. The methods used to derive the BSU food budgets are based broadly on work by the Family Budget Unit (FBU) which constructed budget standards for the United Kingdom (FBU, 1992), adapted appropriately to Australian conditions, norms and prices.

The BSU approach is similar to that used over a decade ago by the Australian Institute of Family Studies (AIFS) in its pioneering study of the costs of children (Lovering, 1984). The development of the Lovering food budgets did not, however, take into account actual eating habits reported through dietary intake surveys, so that to this extent the BSU research represents an extension of the AIFS research.

In order to develop the food budget, a dietary profile has been developed for each individual within each of the BSU household types. The dietary profiles encompass a basket of food items designed to meet the dietary recommendations for energy and nutrients. The food budget for each individual in each household type has also been developed so as to reflect the usual purchasing patterns of Australian families.

What people typically eat has been identified through the analysis of national food survey data and this information has been adapted to fit within the guidelines and recommendations for healthy eating.

The food budgets described below have been continually updated and revised in light of comments received on earlier versions of the budget, and through a series of specially convened focus group discussions. The food budgets have been costed using retail prices applying in February 1997.

As explained by Bradshaw (1993) and outlined in detail in earlier chapters, the budget standards methodology is based upon both normative and behavioural data. Normative judgements, designed to establish norms of customary behaviour are made from a large number of observations with regard to what is adequate or desirable, whilst behavioural judgements are based on observed conduct without regard to such subjective assessments.

The Australian recommended dietary intakes (RDIs) of nutrients used to construct the BSU food budgets are an example of normative data. The RDIs are based on the needs of the population and were developed by a working party of experts from the National Health and Medical Research Council (NHMRC). Behavioural data are based on actual observed data, as

* The food budget was prepared by Colette Murray, with assistance from Michael Bittman and Peter Saunders. Advice and assistance in the development of the food budget was provided by several members of the Budget Standards Unit Steering Committee particularly by Ian Lester and Katrina Baghurst who offered many helpful suggestions and expert opinion on the methodology. Associate Professor Heather Greenfield, from the Department of Food Technology at the University of New South Wales also provided important information and resources, and Professor Jonathan Bradshaw provided many useful suggestions on an earlier draft. Assistance was also provided by Eric Fairclough and Kirsty Breckenridge of AC Nielsen, who provided useful data from their research on 'leading brands'. Additionally, the help of Amanda Thomas from Merrylands Community Health Centre. Maine Norherg and Wendy Hodge from Central Sydney Area Health Service and Sylvia Pomery from the Bakers Institute is gratefully acknowledged.

reflected for example in, averages, medians, or proportions, such as the proportion of people who consume fruit each week (see, for example, Nelson, Mayer and Manley, 1992).

In the past, food budgets in Australia have been derived from the normative judgements of health professionals in relation to what people should be eating. The AIFS research on the costs of children referred to earlier, for example, described in detail the costs of feeding and clothing Australian children (Lovering, 1984). Food budgets for low and medium income households were priced, where the low cost meal plan was based on research conducted by Piachaud (1979) in the United Kingdom and was concerned with estimating the cost of minimum nutritional requirements.

The Piachaud diet plans were themselves adopted from a study in the United States which developed a daily food plan for children based on minimum requirements. Lovering noted that the Piachaud standards were not necessarily appropriate for Australian children and that they do not allow for wide variations in dietary needs.

In response to these observations, Lovering developed a second food standard for medium income families which was developed by a home economist and was based on daily menu plans that were nutritionally adequate for Australian children (Lovering, 1984).¹

The BSU food budgets have taken the methodology used in Lovering's study a step further by not only ensuring that the dietary profiles are nutritionally adequate, but also by taking into account what Australians actually eat. A diet based solely on recommended guidelines for healthy eating may not reflect actual eating patterns, which are usually guided by the prevailing cultural notions of what constitutes acceptable and appetising food. A normative diet may be ideal in theory, but its value in practice would be limited by its relevance to people's actual lives and standards of living.

The BSU food budgets thus aim to reflect the eating patterns of the community in general, as well as being in line with Australia's established dietary recommendations for health and overall well-being.

Similar problems occur if the food budgets are based on the prices of the cheapest available foods. Evaluating the cost of foods based solely on value for money (even if they satisfy nutritional requirements) risks producing diets that are unpalatable and unacceptable to the majority of people. The cheapest items may satisfy nutritional requirements but fail to meet consumer tastes and preferences.

The type of food we choose to eat is closely tied to the kind of society we live in, the values that are promoted, and even the climate. One would not expect a normative budget for Norwegians to be similar to that for Australians, any more than one would expect to find similar patterns of food consumption in the two countries. Many family and social events involve sharing meals together, for example, birthday celebrations, family get-togethers and having friends over for a Sunday afternoon barbecue.

These types of social events are a way of life for many Australians, and food plays an important role in them. It is therefore important to ensure that the food budget has relevance to the society we live in.

¹

The overall budgets developed by Lovering are regularly updated and published by AIFS in *Family Matters* (e.g.. AIFS. 1995).

The most effective way of discerning the food consumption patterns of Australians is to study national dietary intake surveys. In Australia, however, such data, particularly for some age groups, are neither plentiful nor current.

Fortunately, the dietary differences between genders is well documented and physiologically based, so this does not create further difficulty. Large-scale surveys can be used to identify the types of food regularly eaten by various age groups. Although there are few nation-wide dietary surveys, there are a number of large scale surveys in Australia, several of which have been conducted by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) (Baghurst *et al.*, 1989, 1993; Baghurst, 1991; CSIRO and Edgell-Birds Eye, 1993).

Selecting the types and amounts of food for inclusion in the budgets on the basis of food survey data and recommendations from health authorities provides an objective and independent basis for the development of household food costs and minimises opportunities for the personal preferences and beliefs of the researcher to influence the results.

5.2 Planning Diets on the Basis of Food Intake Surveys

Dietary Intake of Adults: National Surveys

The first step involved in the development of the food budgets was to identify what types of food Australians are actually eating in the 1990s. This involved studying large-scale national surveys that have been conducted recently. There are a number of different methods for recording the food consumption patterns of large groups in sample surveys. The two most common methods used for public health purposes have been the 24-hour recall and the semi-quantitative food frequency questionnaire (Marks *et al.*, 1993).

The 24-hour recall is a retrospective measure of the food and estimated nutrient intake of subjects. This method was used in the *National Dietary Survey of Adults: 1983* in Australia, conducted by the Commonwealth Department of Health (1986). The survey involved an interviewer asking individual subjects to recall the types and amounts of all food and drink consumed during the previous day (Webb, 1995).

The semi-quantitative food frequency questionnaires (which have been regularly used by the CSIRO) determine usual food intake over time, at the individual level. This method requires subjects to answer a number of questions relating to a list of foods, for example, the size of serving portions and the number of times a food is eaten (Baghurst *et al.*, 1993).

Research and debate continues about the usefulness and relative merits of these two different survey designs (Sempson *et al.*, 1992; Baghurst, 1992; Sempson, 1992). However, for the purposes of the BSU research, information on the general trends in eating habits is the main concern.

The most important requirement was that the survey data provided adequate information on the types of foods eaten on a regular basis by Australian households. While it is known that food preferences and consumption patterns change for individuals with their age, and for entire populations over time, the approach taken has to be modified in light of the information available.

The last national dietary survey of adults which used the 24-hour recall method was conducted in 1983 (Department of Health, 1986).² This survey is now over 10 years old, and a growing body of evidence indicates that dietary changes occur over time. A study by Baghurst and others found, for example, that reductions in the intakes of fat, sugar and salt intake were the main areas of change between 1985 and 1990 (Baghurst *et al.*, 1993). Another study of 423 Brisbane residents also revealed that people make dietary changes (although no time span was specified), the most common changes in this case being the reduction of fat and the increased consumption of fruit and vegetables (Hughes, Lund-Adams and Heywood, 1996).

One of the most recent food frequency surveys is the *1993 Australian Food Survey* conducted by the CSIRO in conjunction with Edgell-Birds Eye (CSIRO and Edgell-Birds Eye, 1993). This survey involved over 2,000 adults aged over 18 years throughout Australia, which was selected as the basis for developing diets for the adults within each of the BSU household types. The survey was chosen because it provides the most current information regarding eating habits in Australia, but also because its results contain both qualitative and quantitative information which was derived from the use of a food frequency questionnaire.

The *1993 Australian Food Survey* reveals that there are differences in food choices between age groups as well as between the sexes. The published results present food intakes (in grams) for males and females, and also tabulates the frequency (percentage) with which different types of foods are eaten over periods of a week and a month by gender and age group. This information was used to create diets that reflect the reported food intake variations found between sex and age categories.

The survey also reported results on food intake across occupational groups. However, this variable was not chosen to differentiate between households because the occupation of the individuals within the BSU household types is not specified. Furthermore, Australian research indicates that food intake patterns between social status groups do not differ greatly; dietary intake levels of all social groups tend to be high in fat and low in dietary fibre when compared to the recommended intake levels (Smith and Owen, 1992).³

Both the low cost and modest but adequate BSU food budgets are based on normative and behavioural data. The normative approach ensures that each individual is provided with enough food to meet the recommended levels for energy and various nutrients. Additionally, the diet profiles follow the nutritional guidelines that are published by the NHMRC.

Any differences that occur between low cost and modest but adequate standards are thus not related to the nutritional aspects of the food budget; the type and amount of food remains the same for each individual at the two standards. The energy intakes are also the same for both standards, which assumes that the height and weights of the individuals at both standards are the same.

The differences between the low cost and modest but adequate food budgets arise primarily because of the different food *brands* included at each standard, as explained in more detail later. These differences trace through into the price of foods introduced into the budgets and

² A national nutrition survey of Australian households has recently been undertaken (Lester, 1994), although the results were not available when the BSU food budget was being developed.

³ A study by Smith and Baghurst (1992) found statistically significant differences across social status groups in relation to nutrient and food intakes, although these differences were small when compared to the disparity between the *actual* intakes of all groups and the *recommended* pattern of intake overall.

hence into the costs associated with achieving the low cost and modest but adequate dietary standards.

Dietary Intakes of Children: National Surveys

The 1993 CSIRO survey does not include people under the age of 18. A separate study was therefore required to obtain information about the food intakes of children. The food profiles developed for the individuals under the age of 18 were based on the mean intakes reported from the *1985 National Survey of Schoolchildren (aged 10-15 years)* (Department of Community Services and Health, DCSH, 1988).

Although this survey is over 10 years old, there were no other national food intake surveys of Australian children published at the time of the BSU study. The nationwide survey of children conducted by DCSH was based on a methodology which involved a 24-hour record, in which the subjects were required to record the amount and type of all food and beverages consumed over a 24-hour period.

Developing dietary profiles for children aged three, six, 10 and 14 years was necessary for the development of food costs for a number of the BSU household types. Based on the information available, it was possible to develop recommended diets for three- and six-year-old children by extrapolating the figures for those aged 10 years.

Additionally, less comprehensive studies conducted in Australia were used as a guide and the advice of paediatric dietitians was also sought to ensure that the diets developed present a realistic description of what Australian children typically eat.

Summary of Small Scale Food Intake Studies

Several small scale studies have looked at the energy and nutrient intake patterns of Australian school-aged children. A study of children aged six found that their mean energy intake was 6,600 Kilojoules (Kj) for boys and 6,000 Kj for girls, with a range from 3,000 to 10,000 Kj. Carbohydrates were found to provide half of the required daily energy intake. Simple sugars contributing just over half of these required kilojoules, with sweets and soft drinks being two of the main food sources. The intake of fibre varied amongst the children, ranging between three and 28 grams.

The children's diets were also found to be adequate in micro-nutrients, but included an excessive salt intake and a greater amount of saturated fat than is recommended (Magery and Boulton, 1987).

Similar results were found from a study of inner city Sydney school children, with a mean age of between 10 and 11 years (Sciberras and Darnton-Hill, 1985). This study found that nutrient intake was adequate, with approximately half the energy intake being derived from carbohydrates, and another 36 per cent from fat. The study identified a number of nutrients that were low in the diets of some children, including calcium, iron, thiamine and riboflavin. However, the researchers were careful not to draw conclusions about these nutrients, as the research was based on a dietary intake over the previous 24 hours only.

A recent study of 300 primary school pupils conducted by the apple industry and the Australian Horticultural Corporation found that 75 per cent of the children surveyed did not eat the recommended two servings of fruit per day (Australian Horticultural Corporation, 1996). The most popular fruit eaten was apples, followed by bananas. Few respondents reported having

eaten fruit bars or canned fruit. The majority of children were also found to consume snack foods that were high in fat content.⁴

To the extent possible, all of the above studies have been used as a reference source in the development of the food profiles for the children within the BSU households. They were also of assistance in validating the dietary profiles developed from the *1985 National Dietary Survey of School Children* (DCSH, 1988).

Analysis of the Survey Data

In developing diets based on what Australians actually eat, it is not possible to attempt to represent every individual Australian. People's diets vary greatly: there are groups within the community who follow special diets, such as vegetarians (including ovo-vegetarians, lacto-vegetarians and vegans), as well as those who are on diets for medical conditions such as diabetes, coeliac disease and cystic fibrosis.

There are also significant dietary variations amongst Australians according to their cultural background and ethnicity, for example, indigenous Australians and those who migrated from countries such as Italy, Greece, Lebanon, Malta or Spain and the countries of East and South East Asia.

Apart from variation amongst community groups, there are also individual differences to take into account: people have different preferences for food, and there can be social and religious pressures to consume certain types of foods, as well as varied energy and nutrient needs which can influence food intake patterns. Given Australia's dynamic and still-developing cultural mix, there can be no such thing as a 'typical' Australian diet. However, it is possible to develop a reasonable indicative diet based on what is representative of most common food habits.⁵

There is also a wide selection of foods available in Australia, with over 15,000 items available in the food supply. Including all available foods in the profiles would be a difficult and time-consuming task, and would result in a very long list of foods. Rather than including all items in the survey data, it was more practical for BSU purposes to select only those foods most commonly eaten by the majority of Australians.

Selecting foods for the profiles on the basis that they were eaten by most Australians helped to eliminate those food items which are eaten by very few people. For example, the 1992 CSIRO survey referred to earlier reports that for women aged 18-39, the average intake of liver is one gram per day. Including liver in the diet of a 35-year-old female would thus suggest that a small amount of this food is typically eaten by all women of this age. This may not be correct, however, because the survey also reports that only four per cent of women of this age group ate liver in any one month.

To produce a food profile from which the indicative budget can be estimated within the practical limitations of time and resources, coverage was therefore restricted to foods eaten regularly (at least once a month) by a substantial proportion of the population.

⁴ The full results of this survey were not released to the public at the time of this study and so could not be used to assist development of the BSU food budget.

⁵ Tailoring the BSU food budget to conform with more specific ethnic or otherwise differentiated diets represents an important extension of research on budget standards. It would, however, need to be undertaken as a separate exercise.

Development of a normative food budget in this way does not mean that there is no recognition of the great variety in the actual dietary patterns which exist in contemporary Australian society. Any attempt to articulate what is 'typical' for Australians runs the risk of being seen as a vehicle for marginalising some groups.

This is not the intention of the BSU research, nor does it follow for the budget standards methodology, which can be modified to encompass food (and other) budgets that have relevance to specific groups in the population, as noted earlier.

In order to identify and eliminate the foods that are rarely eaten, it was necessary to analyse the percentage of people who actually eat each food item. The two surveys used in this study (the CSIRO and Edgell-Birds Eye 1993 *Australian Food Survey* and the DCSH 1985 *National Dietary Survey of School Children*) both record the percentage of people who ate particular foods in a given period, and can therefore be used to select which foods to include once a representative percentage benchmark has been selected.

Determining the cut-off point for which foods were included in the food budgets was achieved by looking at the types of food that lay below various percentage thresholds. This method ensures that foods from the main food groups are a part of the food profiles, and that a large variety of miscellaneous foods are also included.⁶

The foods included in the adult food budgets are those which are eaten by a substantial proportion of the population. The cut-off point selected was 30 per cent, indicating that foods which were reported to be eaten by 29 per cent or less of the population were excluded from the diet profiles.⁷

The 1985 *National Dietary Survey of School Children* reports the percentage of survey participants who ate certain foods within a 24-hour period (DCSH, 1988). Foods which were eaten by less than five per cent of children during the recall period were excluded from the profile.

This is a relatively low percentage cut-off point, due to the fact that the DCSH survey only measures the food intake over a 24-hour period, and it increases the probability that some foods will be excluded which are usually eaten by most people, though less frequently than daily. However, excluding foods which were eaten by less than five per cent of the survey population eliminated those foods which, on average, were consumed in very small amounts while at the same time allowing for a wide variety of food items to be included.⁸

Take-away Food

Eating take-away meals at fast-food chains appears to be very common in Australia, and this needs to be incorporated into the food budgets in some way. It is an activity which, for many

⁶ Eliminating foods according to the percentage of people who eat them also helps to highlight the differences in eating patterns between different age groups and sexes.

⁷ The choice of 30 per cent as the cut-off for inclusion of items in the food budget might appear to be inconsistent with the 50/75 per cent ownership or utilisation rule described in Chapter 2 and used in the development of other component budgets. However, this is not the case, because it is *nutritionally* important that the food budget includes a wider variety of food types than just a narrow range of favourite foods eaten by the majority (or three-quarters) of the population.

⁸ Use of the five per cent cut-off for inclusion of items is again not inconsistent with the 50/75 per cent ownership or utilisation rule, for the reasons outlined in the previous footnote.

people, is an important aspect of their social participation activity and raises the quality of their lives. Reflecting this behaviour, the national dietary intake surveys include items such as pizzas, meat pies and hamburgers that had been purchased from take-away food outlets.

In addition, a recent study reported that the take-away food industry is a major supplier of food and beverages in Australia (BIS Shrapnel, 1995). The survey, conducted in 1995, involved over 1,500 consumer interviews and included questions regarding purchases made from fast-food chains (such as McDonald's) and independent outlets (such as fish and chip shops and sandwich bars).

The survey reported that the average person purchased 24 sandwiches, 16 cartons of potato chips and 14 hamburgers per year from take-away outlets. The most popular drinks included milk, carbonated drinks, cappuccino and fruit juice. McDonald's was found to be the market leader of the fast-food chains, followed by KFC (formerly known as Kentucky Fried Chicken) and Pizza Hut, while Asian take-away food outlets, closely followed by fish and chip shops, were the preferred independent fast food outlets. This information was used to select outlets for pricing the take-away foods incorporated into the BSU food budgets.

The *1993-94 Household Expenditure Survey* (Australian Bureau of Statistics, 1996) reports that the average weekly household expenditure on dining out and take-away meals was \$29.00, a figure which is broadly consistent with a family of four eating out once a week. This represents 27 per cent of the average weekly household expenditure on food and drinks, an increase from 1988-89 when it accounted for only 25 per cent, and from 1984 when it was only 22 per cent.

Take-away food was found to be more expensive than purchasing a similar food product from the supermarket. The modest but adequate food budget includes several food items, for example, pizza, hamburgers, meat-pies and doughnuts, that are assumed to be purchased from take-away outlets.

However, whilst the low cost food budget assumes that almost all foods are purchased from the supermarket, there is also some take-away food allocated for households at the low cost standard, but at a reduced level reflecting the overall pricing methodology for distinguishing between modest but adequate and low cost standards (see below).⁹

The amount of take-away food included for each individual largely depends on the type and amount of food that the survey data report is eaten by each particular age group. The survey data reveal that the amount of take-away food, such as hamburgers, meat pies and doughnuts, differs between age groups and the sexes with, for example, the 14-year-old and 40-year-old males having a relatively large intake of hamburgers, meat-pies and doughnuts, relative to females and older males.

Although take-away foods are not always high in nutritional value, it is important to keep the budgets realistic in terms of Australians' actual eating behaviours. Furthermore, there is no evidence to suggest that fast-food eaten in moderation in Australia is actually harmful to health. The food budgets thus include some fast-foods, but only in small amounts.

Take-away Drinks

The initial costing of the food budget did not take into account children buying cold drinks from the school canteen. However, evidence suggests that the majority of school children do in fact purchase foods on a daily basis from the school canteen, so that adjustments have been made to reflect this.¹⁰

The cost of cold (soft) drinks purchased from the school canteen have been included in the budgets for the 10- and 14-year-old children at both the low cost and modest but adequate standards. Similarly, an allocation of fruit juice drink (a 'poppa') bought from a store has also been included in the budgets for both the three- and six-year-old children. Adults in employment are allocated some 'take-away' drinks, with smaller amounts allocated to those adults either unemployed or not in the labour force. 11

As a result of these allowances for take-away food and drink, the weekly expenditures on these items (excluding the cost of take-away alcohol and coffee) varies, at the low cost standard, from around 70 cents a week for the single female to \$8.30 a week for the couple with four children. The corresponding range at the modest but adequate standards varies from \$2.60 to \$15.10. (At both standards, the 70-year-olds are assumed to spend nothing on take-away items.)

Inclusion of Alcohol

The CSIRO dietary intake survey revealed that alcohol was consumed by a substantial proportion of Australian adults. Alcohol is included in the food budget, as it is recognised that many Australian adults do consume it. Although excessive consumption of alcohol can be harmful to health, there is no evidence to suggest that the consumption of small quantities (one to two drinks per day) has harmful effects (Stanton, 1992).

There are recommendations for safe levels of drinking alcohol, and these have been taken into account when reviewing the nutritional adequacy of the BSU dietary profiles.

A number of recent surveys have revealed that a large proportion of the population drink alcohol. The *National Drug Strategy Household Survey* which took place in 1995, found that 76 per cent of the population over the age of 14 years reported drinking alcohol (Department of Health and Family Services, 1996). In addition, the ABS *Population Survey Monitor* (PSM) found that, in 1994, the average consumption of alcohol for men was 1.3 standard drinks, and for women was around half a standard drink per day (AIHW, 1994).

The *1995 National Drug Strategy Household Survey* found that there was a wide variation in the amount and type of alcohol consumed throughout the population. The survey found that men drank more often than women: among those reported to consume alcohol, 50 per cent of men claimed to drink two to three times a week, compared to 26 per cent of women. However, the great majority of both men (86 per cent) and women (72 per cent) reported drinking at least once a month (Department of Health and Family Services, 1996).

¹⁰

For example, a survey based on 15 primary schools in Sydney found that the school canteen played an important role in the purchasing of food and drinks, the results revealing that 80 per cent of children used the canteen, with canteen supervisors believing that children spent on average around \$1.50 per day (Scarlett, 1993).

¹¹

At both standards, one cup of coffee each week is assumed to be consumed in a coffee bar or tea house by the 35- and 70- year-old women, and the older male is assumed to buy a weekly beer at the bowling club.

The survey also found that two-thirds of current drinkers were drinking at low-risk levels, based on the NHMRC Guidelines which recommend that women should not drink more than two drinks per day and males no more than four, with two alcohol-free days each week (NHMRC, 1992b).

The most commonly consumed alcoholic drinks were wine, regular strength beer, spirits and low alcohol beer. Wine represented the main alcoholic beverage for most women who are current drinkers (at 58 per cent) followed by spirits (at 45 per cent). Men who are current drinkers mostly consumed regular strength beer (55 per cent) and 35 per cent of men were reported as consuming low alcohol beer (Department of Health and Family Services, 1996). These differences in amounts and type of alcohol consumed between men and women are also reflected in the food budgets.

Although under-reporting of alcohol consumption is believed to be common in food intake surveys (Lester, 1994), the amount of alcohol included in the BSU food budgets was not increased to allow for such under-reporting. This decision was based on the normative assumption that health risks associated with alcohol consumption tend to increase relative to the amount consumed.

A modest amount of alcohol has been included in the food budgets of all adults, based on behavioural data described above, although the amounts are also consistent with the NHMRC recommended allowances. Wine is allocated to women (one glass a week of cheap bottled wine at the modest but adequate standard and 1.4 glasses a week of cask wine at the low cost standard), whereas men were allocated a mixture of the two.

Working-age men at the modest but adequate level were allocated three middies of full strength beer, one glass of low alcohol beer and two glasses of wine a week, while men at the low cost standard were allocated slightly less, and the older men received about a half of this allowance.

As noted earlier, the 70-year-old male at both standards is assumed to spend some leisure time at the bowling club, so that the cost of beer for the older male is priced at bowling club prices. The beer consumed by the 40-year-old male is assumed to be purchased 'in bulk' from the supermarket.

Food on Special Occasions

Special occasions, such as Christmas and birthdays have not been accounted for in developing the BSU food budgets. The food budget is a normal weekly costing of food, which reflects a typical week, rather than a week in which a birthday, or other type of event is celebrated. However, the kinds of food generally associated with these types of celebrations, including cake, lollies and soft drink are all included in the food profiles. 12

5.3 Adjusting the Food Profiles to Reflect Australian Dietary Guidelines

It is important that the BSU food budget standards do not fall below the level of nutritional adequacy or reflect dietary patterns that may be harmful to health (by including, for example, excessive intakes of alcohol). The diets have therefore been adjusted to compare with the

¹² The 'gifts in equals gifts out' assumption described in Chapter 2 also implies that the costs associated with special meals can be assumed to cancel out over the course of a year for the typical household.

prevailing recommendations for healthy eating in order to ensure that they are nutritious and meet energy needs.

A number of data sources and methods were used for this purpose, including from the *Core Food Groups* model (Cashel and Jeffreson, 1995), the *National Guidelines for Children and Adolescents* (NHMRC, 1995), *Recommended Dietary Intakes* (NHMRC, 1991) and the *Dietary Guidelines for Australians* (NHMRC, 1992a). How this was done is now outlined.

Altering Diets According to the Core Food Group Model

The food profiles developed for each individual within the BSU households aim to reflect the current recommendations for healthy eating. In practice, this involved the use of the core food group model published by the NHMRC, which presents recommended quantities of the five major food groups: bread and cereals; fruit; vegetables; meat; and dairy products (Cashel and Jeffreson, 1995). The foods selected from the survey data were categorised into the five food groups plus a miscellaneous group, so that comparisons could be made with the published recommendations.

The food profiles were then adjusted incrementally towards the quantities recommended by the core food group model. The purpose of the models developed by the NHMRC (which are in themselves only 'indicative' of what people eat) is to demonstrate an adequate consumption of micro-nutrients (based on RDIs) within a reasonable energy intake and present this in terms of the actual patterns of food consumption rather than the consumption of individual nutrients.

The core food groups do not include a fats group, and are designed to meet 70 per cent of the recommended dietary intake for nutrients, and approximately 50 per cent of energy needs. These percentages are below 100 per cent, in order to allow for individual preferences and choice in determination of people's dietary intakes (Cashel and Jeffreson, 1995). The model is suitable for the development of the BSU food profiles, as there are a large number of foods included in the 'miscellaneous' group which are not included in the five main food groups referred to earlier.

Most of the foods, such as fruit, bread and cereals and vegetables were increased in quantity, due to the recommended amounts being greater than what is reported to be actually consumed on average. Thus, for example, the core food group document reports that the amount of recommended fruit consumption could not be met by the available food supply, although the shortfall would be expected to be met in the long-term as the market responds to the shortfall of supply (Cashel and Jeffreson, 1995).

Meat, on the other hand, has been adjusted down to meet the recommendations set by the core food group model, on the grounds that the survey data indicate that the population currently consumes more meat than is recommended.

Through such adjustments, the objective was to ensure that the food budgets combine normative and behavioural data to obtain overall balanced, healthy diets which also reflect the types of food eaten in Australia. The core food group model proved to be a useful tool for balancing each diet in terms of the five main food groups, without creating a problem of excess overall energy intake.¹³

How the core food group model assisted in the process of developing the food profiles is explained in detail in Appendix 5.A.

Setting Total Energy Intakes Relative to Need

The second step in adjusting the dietary profiles involves comparing the amounts of food recorded in each diet to the recommended dietary intakes for energy, vitamins, minerals, fibre and alcohol. This was achieved using a dietary software program and the NHMRC's recommended dietary intakes (RDIs) and guidelines.

It was necessary to determine the energy and nutrient needs of each individual, as people's needs vary according to their age and sex. The various recommendations were obtained from tables published by the NHMRC (NHMRC, 1991). An individual's energy needs are the most complex to quantify, as they vary greatly according to metabolic rate, age, sex, height, weight, physical activity and appetite.

One factor which can influence energy needs is how active a person is throughout the day. The type of work one does can influence an individual's energy requirements. A farmer or labourer, for example, would have greater energy requirements than an office worker or taxi driver. Potentially, people who are not in employment could have higher energy requirements than those who do work, because they have more time available to undertake physical activity.

Determining the energy intake of each person is important, as it provides a guide to how much food is required by a given person of a certain age and weight. While the RDIs for vitamins and minerals represent safe and adequate intakes for the population, they may not be the most desirable or appropriate amounts for all individuals (Walker and Rolls, 1992).

Because recommended energy intake provides a more accurate guide to the actual nutritional needs for individuals than the recommended dietary intakes for individual nutrients, more emphasis has been placed on ensuring that the dietary profiles met the recommended energy levels than on their vitamin and mineral content.

It is important that the implied energy levels for each individual are adequate but not excessive. Tissue breakdown, slowing of bodily functions and stunted growth are all a consequence of extremely low energy intake. On the other hand, excessive energy intake can lead to obesity.

The NHMRC have devised a set of tables that provide guidance for the provision of energy requirements for groups of infants, children, adolescents and adults. Recommended energy intakes and equations for estimating energy expenditure for groups is presented in *Recommended Dietary Intakes for Use in Australia* (NHMRC, 1991), from which the energy estimates for individuals under 18 were taken.¹⁴

Table 5.1 shows the recommended energy intakes for children under 18 years of age, including the estimated values for the three- and six-year-old females. The NHMRC provides a range of values for adolescents between the ages of 10 and 18 years and the recommended energy levels for 10- and 14-year-old boys have been expressed as a range rather than an individual value.

Two alternative ways of selecting energy requirements for the adults in the BSD household types have been used as guides for determining the BSU food intake profiles. The first method

¹⁴

It is important to note that energy requirements can vary even between individuals who are the same in age, sex, weight, height and activity levels.

Table 5.1: Recommended Energy Intakes for People Under 18 Years of Age

Age (years)	Kilojoules per day (KJ/day)	
	Males	Females
3-4	6,500	6,000
4-5	7,100	6,400
5-6	7,600	6,800
6-7	7,900	7,100
10-11	8,100 to 9,100	7,300 to 8,200
14-15	10,500 to 11,800	8,600 to 9,800

Source: NHMRC, 1991.

involves taking into account the median height of Australian men and women in the designated age groups (Table 5.2).

To calculate the energy requirements using the median height of different age and sex groups within the population, it was necessary to determine the corresponding weight. This was achieved by taking the mid-point of the healthy weight range for the actual median heights of men and women of different ages in the population.

Table 5.2 also shows the median heights, the healthy weight range for the corresponding heights and the designated weights. The energy intakes were calculated from the most recent Schofield's equations for predicting the basal metabolic rate (BMR) from body weight, age and sex, as described in Table 5.3.¹⁵ These are considered to be the best estimates for predicting BMR in healthy adults (Warwick, 1990, p. 298).

Table 5.2: Median Heights, Weights, Healthy Weight Ranges and Designated Weights

Age	Median height	Median weight	Healthy weight range for heights	Designated weight (mid-point of healthy weight range)
Men				
40 years	176cm	78.7kg	62-77kg	69.5kg
70 years	172cm	77.3kg	59-74kg	66.5kg
Women				
35 years	163cm	62.8kg	52-66kg	59kg
70 years	159cm	65.7kg	50-62kg	56kg

Source: National Heart Foundation and Australian Institute of Health (NHF and AIH), 1990; NHMRC, 1991.

¹⁵

The basal metabolic rate (BMR) is the energy expenditure of a body which has fasted for at least 12 hours and is mentally and physically rested. The BMR varies between individuals according to their age, sex, height and weight (NHMRC, 1991).

Table 5. 3: Derivation of Required Energy Values for Adults

Sex and Age (years)	Formula for BMR provided by NHMRC	Weight (kg)	BMR Megajoules (MJ)	Activity Factor	Megajoules (MJ)	Energy Intake Kilojoules (kJ)
Male 40	$(0.048 \times \text{wt}) + 3.653$	69.5	7.0	1.5	10.5	10,500
Female 35	$(0.034 \times \text{wt}) + 3.538$	59.0	5.8	1.5	8.7	8,700
Male 70	$(0.049 \times \text{wt}) + 2.459$	66.5	5.7	1.5	8.6	8,300
Female 70	$(0.038 \times \text{wt}) + 2.755$	56.0	4.9	1.5	7.3	7,300

The activity factors have been set in accordance with the BSU leisure budget (described in Chapter 10), which allows each person to participate in 20 to 30 minutes of exercise three to four times per week.¹⁶ The energy requirements of sedentary adults whose lifestyles require 'minimal activity' is 1.4 BMR. However, for sedentary adults who exercise 20 to 30 minutes per day, the energy levels are expected to be 0.05 to 0.18 BMR higher than those who do not exercise.

Since the BSU leisure budget assumes an allowance for regular exercise for each of the individuals, an activity level of 1.5 BMR was chosen ($1.4 + 0.1 = 1.5$ BMR) (Truswell, 1990). The implied list of the designated energy intakes for the adults after specific weights and activity factors have been accounted for is shown in Table 5.3.¹⁷

The second method for deriving the required energy values involved referring to the tables produced by the NHMRC for energy ranges used when referring to groups of people. These are summarised in Table 5.4. The ranges shown there are designed to reflect the normal variations within populations and the level of energy expenditure is 1.6 to 1.8 BMR for males and 1.5 to 1.7 BMR for females (NHMRC, 1991).

Table 5.4: Recommended Energy Intake for Adults (kj/day)

Energy Intake Ranges for Adults (KJ/Day)	
Male:	
40 years	10,000 to 11,400
70 years	7,900 to 9,000
Female:	
35 years	7,700 to 8,800
70 years	6,900 to 7,900

Source: NHMRC, 1991

These 'activity factors' ensure that the calculations for energy allow for physical activity.

No account has been taken of the impact of the type of work performed by those individuals in employment and their energy values, because occupational details are not specified in the BSU household types.

The final diets developed for the food budgets all have energy levels which fall within the ranges reported in Table 5.4, although they also fit closely to the energy values reported in Table 5.3 which were determined from the data on median heights for Australians.

These differ in that the energy ranges in Table 5.4 allow for flexibility, whilst the calculated values (reported in Table 5.3) which are normally used to determine individual requirements, provide a more specific guide to energy needs. The most important point to draw attention to is that the derived estimates in Table 5.3 fall within the ranges indicated in Table 5.4 in all cases, generally falling close to the mid-point of the relevant range.

Table 5.5 reports the energy levels allocated to each of the individuals within each of the BSU household types. Looking at the variations in recommended energy needs of the eight different individuals, it is apparent that the amount of food each person needs varies according to their age and gender.

Table 5.5: Recommended and Actual Energy Intakes for the Individuals Within the Household Types

Age and Sex of each Individual	Recommended energy intake range in Kilojoules (Kj)	Actual energy intakes incorporated into BSU food budgets
3-year-old female	approx. 6,000	6,000
6-year-old female	approx. 7,100	7,200
10-year-old male	8,100 to 9,100	9,000
14-year-old male	10,500 to 11,800	10,900
40-year-old male	10,000 to 11,400	10,500
70-year-old male	7,900 to 9,000	8,100
35-year-old female	7,700 to 8,800	7,900
70-year-old female	6,900 to 7,900	7,700

Source: Tables 5.1 and 5.4 plus see text.

The 14-year-old boy, for example, has a very similar energy requirement to the 40-year-old man, reflecting the fact that teenage boys have large appetites, and their 'growth spurt' is usually spread over four years. A boy of this age can grow 15 centimetres in a year, and therefore needs a high food intake to provide energy for growth and physical activity (Stanton, 1990).

The approach taken to determine energy levels was chosen because it is consistent with the methodology used throughout the development of the BSU food budget, in which normative and behavioural information are integrated. A possible alternative approach would involve selecting the median weight of the population as the basis for determining the energy levels. The effect of this method would be to increase food requirements and hence food costs, as the median weight of the population is slightly higher in most cases than the mid-points of the healthy weight ranges shown in Table 5.2.

It is, however, important to take into consideration the fact that the final food costs also depend on the weight designated to each individual. People whose sizes differ from those assumed here will thus face different food costs, as well as differences in activity levels and basal metabolic rates.

The risk factor prevalence study (NHF and AIH, 1990) illustrates how people's weight and heights vary by looking at a derived body mass index (BMI) in which the implied level for acceptable weight is a BMI of between 20 kg/m^2 and 25 kg/m^2 . It is reported in the study that the median BMI for women aged 35-39 years is 22 kg/m^2 and for women aged 65-69 years is 26.1 kg/m^2 (just above the acceptable range). For men, the reported median BMI for 40-44 year olds is 25.3 kg/m^2 and for 65-69 year-old men is 26 kg/m^2 .

This evidence supports the decision to use the healthy weight range as the basis for determining the BSU food intake profiles.

Reviewing the Australian Dietary Guidelines

The *Dietary Guidelines for Australians* and the *Australian Dietary Guidelines for Children and Adolescents* provide a guide to healthy eating (NHMRC, 1992a, 1995). The guidelines are particularly important for the intake of fat, alcohol, and sugar because they are not included in the core food groups (Cashel and Jeffreson, 1995) or in the recommended dietary intakes (NHMRC, 1991). The levels of fat and alcohol included in the food budgets have been reviewed in light of the recommended guidelines for fat and alcohol intake.

Recommended Dietary Intakes (RDIs)

Once the food profiles were adapted to conform to the dietary guidelines, they were analysed for their nutrient content and compared to the recommended dietary intakes set by the National Health and Medical Research Council (NHMRC, 1992a), in order to check that the food profiles were nutritionally appropriate.

The food profiles were analysed using a computer software package (SERVE), and the following nutrients were analysed: total fat; mono-unsaturated fat; polyunsaturated fat; saturated fatty acid; alcohol; thiamine; riboflavin; vitamin B6; vitamin C; magnesium; iron; and zinc. The food profiles were adjusted using the SERVE software package until all diets met the recommended values for each of the above nutrients.

The nutrients selected for analysis were chosen because of their nutritional importance in daily eating habits, and also because of public health concerns that have arisen in the past regarding their inappropriate consumption. Saturated fat, for example, is associated with heart disease and it is recommended that its intake be limited. It is also important to limit intake of fat, due to its association with excess weight (NHMRC, 1992c).

Deficiencies of iron and calcium have been found in the past, with research indicating that a substantial number of men and women have iron and calcium intakes below 70 per cent of the recommended dietary intakes (Lester, 1994, p. 175). In contrast, zinc deficiency has not been reported in Australia, although this does not mean that its existence can be discounted. Reports of zinc deficiency in other developed countries have been found, including in the United States and the United Kingdom (Lester, 1994, p. 200).

Regular amounts of water soluble vitamins (B and C) are important because excess amounts cannot be stored in the body for use at a later time. Vitamins A, D, E and K, however, are fat soluble and can be stored by the body. Therefore a regular supply of water soluble vitamins is a more important consideration than the regular intake of fat soluble vitamins (Stanton, 1992).

The food profiles were adjusted to ensure that the recommendations for daily intake of nutrients described here were met.

5.4 Accounting for Cooking Factors, Inedible Portions and Wastage

Cooking factors and wastage from peelings, cores, leaves and bones must be taken into account for a number of foods before they can be appropriately priced to develop a food budget standard. Estimates of cooking and waste factors were obtained from the *Composition of Foods Australia* (National Food Authority, 1989-1995) and *McCance and Widdowson's: The Composition of Foods* (Holland *et al.*, 1991).

Once cooking factors and wastage have been assessed where appropriate, the foods are represented in amounts which correspond to what would need to be *purchased* in order to satisfy the *consumption* requirements of the various hypothetical individuals.

Based on studies of food discard, it was decided to make allowance for extra food in the budgets for the potential wastage which occurs in real life circumstances. The food profiles take into account the inedible components of food, such as skin, bone and seeds. However, a small additional component of overall food wastage is also needed, once the food profiles are completed, to account for other types of food discard, such as food spoilage and plate waste.

A number of studies have been undertaken in Britain and the US to determine the amount of food that is discarded within households. Estimates of the extent of food wastage have ranged from between three per cent and 10 per cent of total food consumption (Adelson, Asp and Nobel, 1961; Adelson *et al.*, 1963; Dowler, 1977; Wenlock, Buss and Derr, 1980; Nelson, Dyson and Paul, 1985; Harrison, Rathje and Hughes, 1975; Harrison *et al.*, 1983).

Wenlock, Buss and Derr (1980) found in their survey of British households, that six per cent of the total food supply was wasted. This estimate was used to account for wastage in the development of the UK food budgets by the Family Budget Unit (FBU) at The University of York (FBU, 1992, p. 6).

Similarly, an American survey conducted in 1987 found that households discarded on average 1,587gm (equivalent to around six per cent) of the household food supply over a seven-day period. The major reasons for wastage included the poor quality of fruit and vegetables, limited storage time for meat, fish and poultry, non-use left-overs for combination dishes and plate wastage (Van Garde and Woodburn, 1987).

The study by Van Garde and Woodburn (1987) also recorded the percentage of eight different categories of waste. The categories included poor quality, microbial plate waste, wholesome pet food, food not consumed, and left-overs. Two of these categories can be excluded for BSU purposes (pet food and the 'not consumed' category), as they are already accounted for in other parts of the BSU study.¹⁸ No peelings, trimmings or cores of raw commodities were included in this US study.

The percentage of *total* waste attributable to the categories 'pet food' and 'food not consumed', was 11 per cent of the total wastage. This amount was subtracted from the estimate of around six per cent wastage to obtain a figure of 4.8 per cent for total wastage, and this figure has been applied uniformly across all of the household food budgets.¹⁹

¹⁸

Pet food is included in the household goods and services budget (Chapter 7), while the 'not consumed' category, which consists of meat trimmings, fat and bone, is accounted for elsewhere in the food budget methodology.

¹⁹

The wastage factor of 4.8 per cent implies that the actual gross (pre-wastage) food budget exceeds the actual (post-wastage) level of food consumption by five per cent (see Table 5.7 below).

It is important to note that this figure is only an estimate of how much food people discard on *average*. Studies have found that there is much variability in food wastage between households, and the amount of wastage varies according to age and number of people within the household. However, there is limited research data on specific amounts of household waste according to household characteristics.

Van Garde and Woodburn (1987) also found that aesthetic factors dominated the food wastage decisions made by the 18- to 25-year-old age group, but experiences related to food storage were the basis for decisions by half of respondents more than 65 years old. Discards increased with the number of members in the household and were influenced by the ages of children.

Unfortunately, however, there is not enough evidence available to determine different levels of wastage for different household sizes. Inevitably, the five per cent wastage rule may be too much for some and too little for others, but on the whole, it should provide a good estimation for most households.

5.5 Selection of Brand Names for Pricing Purposes

Identifying the brands of food to be priced is important because brand prices may vary for the same food item—sometimes considerably. It was decided that, wherever possible, the 'leading brands' would be selected for pricing the modest but adequate food budget as these are the brands with the largest sales."

The private research group, AGB McNair has a project called 'Brand Scan', which surveys a large number of households and requests them to report in great detail all their daily purchases, including food. The survey data from Brand Scan were used to help select the brands of food to include in the food profiles.

Generic food brands were chosen as an alternative to the commercial brands as the basis for development of the low cost food budget, as these are often lower in price. The price of items which did not have a suitable generic brand alternative remained the same as those recorded for the modest but adequate budget.

Products that have lower-fat alternatives were also selected in some instances (including milk and yoghurt) for both low cost and modest but adequate standards. The price of meat can vary according to fat content—the prices of leaner meats were chosen in order to remain consistent with the food profiles, in which lean meats were included as a part of the total diet.

5.6 Pricing

Most of the food items in the food budgets were priced according to actual supermarket shelf prices. A study by the Food Marketing Institute and the Coca Cola Company (1994) found that over 80 per cent of people purchased packaged food products, dairy foods and soft drinks from a supermarket. The study also reported that almost 50 per cent of people bought their fruit and vegetables from the supermarket, while the rest mainly purchased these goods from a greengrocer.

Choosing the leading brands was also the method employed by Family Budget Unit to price the items in the UK food budgets.

This is also true for meat purchases, in which just over 50 per cent of people reported buying meat from a shop rather than a supermarket. Few people buy fresh fish or wine from the supermarket; the majority purchase these items from speciality shops.

Based on this information, all the foods except take-away food, alcohol and fish were assumed to be purchased from the supermarket.

Regional Differences and Food Prices

Initially, it was intended that the BSU food budgets would be priced according to average food prices for the Sydney metropolitan area as a whole. However, due to time constraints and availability and access to data, it was not possible to obtain average prices for all foods from all the large supermarket chains in the Sydney metropolitan area.

The Australian Supermarket Institute (ASI) were, however, able to provide prices for all of the fresh food items, and were also able to obtain prices from a number of Sydney Woolworths supermarkets. Additionally, AC Nielsen was able to provide average State-wide prices for the majority of the packaged supermarket foods (dry goods).

Scan data is collected for AC Nielsen by Woolworths, Coles, Bi-lo and Franklins based on the shelf prices in all of their stores throughout New South Wales. These data are then processed to provide average State food prices for the majority of dry packaged goods.

The generic brand food prices provided by AC Nielsen were Woolworths Home Brand prices. Where the Woolworths Home Brand price was not available from the AC Nielsen data base, generic items ('No Frills') were priced at Franklins for inclusion in the low cost budget.

Time and resources prevented the BSU food budgets being priced in separate locations all over the country, covering both urban and rural areas. It needs to be borne in mind, therefore, that the prices incorporated into the food budgets may not reflect the cost of food for all Australians, particularly those living in remote parts of the country.

The impact of remoteness on food prices was the subject of the study of the Kimberley region of Western Australia, which found that the cost of basic food items is substantially greater than in the Perth metropolitan area (Gracey and Sullivan, 1991).

The main sources of food for many communities in remote areas of Northern Australia are community-based food stores. These stores charge higher prices, as the nearest towns are hundreds of kilometres away and problems such as high wastage of perishable goods and intermittent shortages due to flooding can effect the cost of food. Prices in remote areas were estimated to be around 45 per cent higher than in the regional centre of Derby.

These price differentials can have a dramatic effect on the cost of living for people in remote areas (Gracey and Sullivan, 1991). A recent research project which compared food baskets in different locations throughout NSW found that prices were relatively higher in rural NSW, particularly smaller towns, and regions where there are high proportions of Aboriginal people (Bonner, 1992).²¹

²¹

There is also some discussion of how food prices vary with location contained in Chapter 13 which summarises the focus group discussions organised as part of the BSU research.

Pricing Strategies for Each Budget Standard

The differences in prices used in the development of the low cost and modest but adequate budgets is based on the way that the price of each individual food item was derived. The low cost budgets represent the cost of food based upon the shelf prices of a number of generic food brands, whereas the modest but adequate budgets are based on food prices of the 'leading brands'.²²

Furthermore, as noted earlier wine in the low cost budget was based on the price of a cask of wine, while the modest but adequate budget included the price of a mid-range bottle of wine, while the modest but adequate budgets include a number of food items that were priced as purchases from take-away food outlets, whereas the low cost budgets include only one item which is assumed to be bought at take-away prices.

Each food item has been priced by its net weight. The daily amount of each food item was then multiplied by seven, in order to obtain the weekly amount. The cost of food for the whole household was then calculated by adding together the total prices for each individual.

Other Pricing Issues

Choosing low fat milk and yoghurts, was a means of obtaining the recommended levels of fat intake. The food brands, were selected according to AC Nielsen's data on 'leading brands', which meant that low salt and low sugar food brands were not included. It is difficult to measure overall salt and sugar intake, and it was not a goal of the BSU food budgets to set specific limits on these two food substances.

The only foods which have a minimal effect on energy levels are tea, coffee and water. The water was considered to be tap, not bottled water, while the price of tea and coffee was found to be substantial. The amount of coffee and tea was set at around thirteen cups per week for adult women and 12 cups per week for adult men.²³

The food budgets were all priced in February 1997, in which most fruits and vegetables were available and in season. According to the Australian Horticultural Corporation, the only fruit which belongs in the food budget but was out of season at the time was the mandarin.

However, mandarins were in fact available for purchase in many supermarkets in February, and at a price which was similar to that observed at a later time of the year when they were in season. The only vegetable in the food budgets which was out of season in February was the brussel sprout, although this was also found to be available in some supermarkets.

Thus, seasonality of fruits and vegetables did not pose a serious problem for the pricing of foods in February, although it is possible that seasonality factors would cause food budgets to vary to some extent over the course of the year.

Economies of Scale

No attempt has been made to build any economies of scale into the food budgets through allowing the bulk purchase of larger items by larger households. The main reason for this was

Details of leading the brands and leading generics were provided by AC Nielsen.

²² As noted previously, the 35- and 70-year-old females (at both low cost and modest but adequate standards) were assumed to purchase one of their weekly cups of coffee from a coffee shop.

that the data did not allow any accurate modelling of the relationship between package purchase size and household size.

There is, however, evidence (provided by AC Nielsen) that larger households do tend to purchase larger packaged items, and there is a fairly large discrepancy between the unit cost of many supermarket items according to their packet size. These factors suggest that there probably are some economies of scale in food purchase, and this is an area in which further research on budget standards might be profitably directed.

The problem is, however, that it is not possible currently to determine the precise magnitude of these effects to a degree that would justify their inclusion in the calculated food budgets at this stage.

5.7 Meal Plan Development

Once the food profiles have been developed, it is possible to convert these into a series of consistent individual meal plans. This was done for each of the BSU households as part of the development of the food budgets. These meal plans are too detailed to be included for each household type, although Table 5.6 presents, for illustrative purposes, the food menu plan for the 35-year-old female.

The number of serves of each of the main food groups are listed in Table 5.6, and how they fit into a daily meal plan is demonstrated. The miscellaneous foods selected from the food profiles that are included in the meal plan are those which provide at least one serve per fortnight. The serving sizes of food are based on the core food groups discussed earlier (Cashel and Jeffreson, 1995).

It should be emphasised that the meal plans developed for the food budgets are only one possible suggestion for how one could arrange the list of food items into a series of actual menus. Meal plans can be organised in a number of different ways to reflect variations in lifestyles and taste preferences of individuals.

5.8 Overall Food Budgets

Table 5.7 summarises the final low cost and modest but adequate BSU food budgets for each individual in each of the BSU household types, differentiated according to their age, gender and labour force status.

The most costly diet is that for the 40-year-old male, its high cost reflecting the large amount of food that must be purchased to meet the recommended daily energy needs. The younger children have food budgets that are relatively low because their energy expenditures are much smaller than those for adults and older children. The children's food budgets also include fewer miscellaneous food items and take-away foods than those for adults; many of the children's foods are from the core food groups.

The food budgets for children shown in Table 5.7 reveal considerable variation with age at both the low cost and modest but adequate standards. In fact, the food budget for the 14-year-old boy is more than double that for the three-year-old girl and almost twice as high as that for the six-year-old girl. The food budget of the 14-year-old boy also exceeds that of the 35-year-old female, a reflection of the 'growth spurt' referred to earlier.

Table 5.6: Illustrative Meal Plan for a 35-Year-Old Female

<u>Food Item</u>	<u>Serves per day</u>	<u>Size of Servings</u>
Food Servings of Main Food Groups		
Bread and cereals	7 $\frac{1}{2}$ serves per day	1 slice of bread, 1/2 cup pasta/rice
Fruit	2 $\frac{1}{2}$ serves per day	small apple, medium orange, bananas
Vegetables	5 serves per day	1 carrot, 1/2 cup beans, peas
Meat	1 1/2 serves per day	1 chop, 2 slices roast meat, 1 egg
Dairy Products	2 1/2 serves per day	200 mls milk, 200g yoghurt, 30g cheese
Daily and Weekly Servings of Miscellaneous Foods		
Coffee/Tea	two cups per day (approximately)	
Lollies	four per week	
Water	six glasses per day	
Take-away food	one serve per 3 weeks (Hamburger/meat pie), purchased at a take-away store for modest but adequate and at the Supermarket for the low cost budget	
Alcohol	one glass per 5 days	glass: 120 mls of wine
Sausage	once per week	
Bacon	one per fortnight	
Hot chips	one serving per week	100 grams of chips per serve
Garlic/herbs	once per week (a pinch)	
Sauces (tomato/bbq)	three times per week	1 teaspoon, 5 grams per serve
Sugar	two teaspoons per day	
Cake	one slice per fortnight	
Fruit juice	three glasses per week	glass: 200 mls
Soft drink	one can per week	375 mls per can
Margarine	three serves per day	one teaspoon per serve
Cooking oil	one serve per day	one teaspoon per serve
Chocolate	one serve per week	1 row per serve
Ice-cream	one serve per week	1 scoop per serve

Illustrative Daily Meal Plan

Breakfast	Two serves of cereal with 200 mls milk plus 2 slices toast and margarine with vegemite/peanut butter/jam/honey (1 teaspoon of spread) or 2 pieces of fruit plus a carton of yoghurt
Morning tea	2 crispbreads with spread (margarine + jam or honey) or 1 piece of fruit (orange/banana/apple/peach/apricot etc)
Lunch	1 sandwich—salad/ham with salad/tuna with salad and/or mayonnaise/margarine plus a drink—orange juice/apple juice/soft drink (coke or lemonade) or cheese salad plus a piece of fruit and a bread roll plus a drink
Afternoon tea	A carton of yoghurt or a piece of fruit or 1 slice of bread + spread
Evening meal	85 grams of meat (chops/stewing meat/steak)/chicken/fish or one egg or 1/2 cup of baked beans plus a serve of pasta/rice/potato/noodles plus 3-4 serves of vegetables (green beans, broccoli, pumpkin, tomato etc) 1 piece of fruit/fruit pie plus (1) scoop of ice cream or carton of yoghurt or a serve of custard
Supper	200 mls of milk plus milo or 30 grams of cheese with 2 crispbread or 1-2 slices of toast with spread

Table 5.7: Individual Food Budgets

Individual Characteristics	Low Cost	Additional 5% for Wastage	Modest but Adequate	Additional 5% for Wastage
35-year-old female (UN/NILF)	\$37.18	\$39.04	\$47.65	\$50.03
35-year-old female (EMPT)	-	-	\$47.68	\$50.06
35-year-old female (EMFT)	-	-	\$48.30	\$50.71
40-year-old male (UN)	\$44.53	\$46.76	-	-
40-year-old male (EMFT)	\$46.25	\$48.57	\$58.06	\$60.96
70-year-old female (RTD)	\$35.49	\$37.27	\$44.91	\$47.16
70-year-old male (RTD)	\$36.72	\$38.56	\$46.03	\$48.33
14-year-old male	\$40.01	\$42.01	\$51.08	\$53.64
10-year-old male	\$30.91	\$32.46	\$40.14	\$42.14
6-year-old female	\$23.65	\$24.83	\$28.85	\$30.29
3-year-old female	\$18.58	\$19.51	\$24.09	\$25.30

Key: UN = unemployed; NILF = not in the labour force; EMPT = employed part time; EMFT = employed full time; RTD = retired.

In other words, at least in relation to food costs, male teenage children are a greater drain on household budgets than adult females—a finding which has implications for how the costs of children vary according to age, as well as for the need relativities derived from the budget standards (see Chapter 14).

As expected, the modest but adequate food budgets are higher than the low cost budgets, a reflection of the increased allowance made for buying take-away food and the selection of leading brands instead of the generic alternatives at the higher standard. Even so, the differences are not that large, with the modest but adequate food budgets exceeding the low cost food budgets by between 22 per cent and 30 per cent, according to the characteristics of the individual.

Having described the individual food budgets, these are now aggregated up to the household food budgets given the details of household composition. The resulting household food budgets are presented in Table 5.8.

Overall, the household food budgets differ according to the number of members within the household as well as with the age and gender (and, in some instances, the labour force status) of each individual in each household. As explained earlier, the amount and types of food included in the costed budgets differ according to the individuals' energy needs and lifestyles.

The food profiles of the elderly couple, for instance include less take-away or pre-prepared food such as pizza and hamburgers than those for households containing younger adults and children. This reflects the different lifestyles of the older couples, in which it would be expected that due to fewer work commitments, they would not need to eat out as often, and hence are required to spend less money on take-away food.

Table 5.8: Household Costing for Weekly Food Budget

Household Type	Low Cost	Additional 5% for Wastage(a)	Modest but Adequate	Additional 5% for Wastage(a)
H1 Single female	\$37.18	\$39.04	\$48.30	\$50.71
H2 Couple	\$81.71	\$85.79	\$106.36	\$111.67
H3 Couple — girl 6, boy 14	\$145.37	\$152.64	\$186.29	\$195.60
H4 Single female, girl 6	\$60.83	\$63.87	\$77.15	\$81.01
H5 Aged female	\$35.49	\$37.27	\$44.91	\$47.16
H6 Aged couple	\$72.22	\$75.83	\$90.94	\$95.49
H ⁷ Couple—girl 6	\$105.36	\$110.63	\$135.21	\$141.96
H ₇₍₁₎	\$105.36	\$110.63	-	-
H ₇₍₂₎	\$107.08	\$112.44	\$134.56	\$141.28
H ₇₍₃₎	\$107.08	\$112.44	-	-
H ₇₍₄₎	-	-	\$134.59	\$141.31
H8 Couple — boy 14	\$121.72	\$127.81	\$157.44	\$165.31
H9 Couple—girl 3	\$100.29	\$105.31	\$130.45	\$136.97
H10 Couple — girl 3, girl 6, boy 14	\$163.95	\$172.15	\$210.38	\$220.90
H11 Couple — girl 3, girl 6, boy 10, boy 14	\$194.86	\$204.61	\$250.52	\$263.04
H12 Single female — girl 6, boy 10	\$91.74	\$96.33	\$117.29	\$123.15

Note: (a) Wastage includes food spoilage, plate waste, poor quality fruit and vegetables, and leftovers.

The differences in the costs of food between household types are thus due to physiological and lifestyle variations that occur at different stages of the life cycles of household members.

The cost differences between the low cost and modest but adequate food budgets shown in Table 5.8 also reflect the pricing strategy that was used to develop the different food budgets. The main aspect which created the differences in the final food costs was the differences in the prices of 'leading' and 'generic' brands of food.

As explained earlier, foods that were available in the generic brand range were chosen to replace the leading brand range in the development of the low cost food budgets. Because generic brands were found to be generally less expensive per gram than the leading commercial food brands, the effect of the switch from leading to generic brands was to lower food costs and hence the food budgets.

In addition, the reduced number of take-away items included in the low cost budgets reduced total food costs. By including only a very small portion of take-away food in the low cost food budgets, differences between the food budgets at the two standards were able to be achieved without decreasing the nutritional value of the underlying food profiles or radically altering the types of food actually eaten.

The overall cost of the BSU food budgets is largely dependent upon the types of food selected. As already explained, the aim in developing the food budgets described here has been to include foods that are commonly eaten in Australia, through the analyses of food intake surveys. The use of the NHMRC's Core Food Group model and the Recommended Daily Intake for energy needs were designed to ensure that the food budgets (and the underlying food profiles) are realistic in terms of quantities of food, particularly within the main food groups.

It needs to be emphasised, however, that even though the budgets are based on the reported food intake of Australians and that steps were taken to ensure they reflect the needs of different age groups and sexes, many people would still have dietary patterns that differ from the underlying weekly food profiles.

Finally, it is important to recognise that the food budgets have been developed so as to allow for a number of the detailed food items contained within them to be changed depending on specific likes and dislikes (for example, by substituting soy sauce for tomato sauce), without causing the costs of the final budgets to alter dramatically.

Further investigation of the price differences of foods within the main foods groups would, however, be needed to assess the overall flexibility of the food budgets presented here.

APPENDIX 5.A: Formulation of the Dietary Profiles that Underlie the Food Budgets

The following description provides a step-by-step guide to the development of the dietary profiles which underlie the BSU food budgets. The main components of the profiles are the itemised amounts of food, the current price of each item and the approximate weekly serving size of each item.

In order to demonstrate how these operate, the following pages contain Table 5.A. 1, which represents the underlying analytical spreadsheet from which the food budget for the 35-year-old female has been developed.

The description which follows explains each of the entries in the spreadsheet and how they relate to each other in the development of the food budget as a whole.

The relationship between each of the separate column entries in Table 5. A. 1 is described below:

Column 1: Categorised list of foods

All the foods which are included in the dietary profiles are listed in the first column of the spreadsheet. The foods are sorted according to their appropriate food group (bread and cereals; fruit; vegetables; meat and alternatives; dairy; and miscellaneous). They are ordered in this way, so that the amounts of food recommended by the Core Food Group model devised by the NHMRC can be compared to the amounts of food provided from the CSIRO survey data.

Column 2: Actual food intake taken from survey data

The second column incorporates the data on the actual consumption of each food item, derived from the food intake surveys. The data in this column represent the daily amounts of each food item (in grams). The 35-year-old female, for example, is assumed to consume on average 25 grams of rice per day according to the CSIRO survey, and so on.

Column 3: Convert to standard units

At this stage, it is necessary to determine if the amount of food derived from the food intake survey data is consistent with the Core Food Group model's recommended intakes. However, in order to directly compare the actual intake with what is recommended, it is necessary to convert the foods into a form that allows a direct comparison.

For example, the Core Food Group Model recommends that women over the age of 19 consume at least 210 grams of bread and cereals each day. While the 210 grams is expressed as weight of bread, the NHMRC reports that 30 grams of bread is equivalent to 90 grams of cooked rice. Thus it is necessary to convert the rice that was actually consumed into 'bread equivalents'. As a result of these conversions, some of the amounts of food will increase while others will decrease depending on the proportional amounts.

Column 4: Adjust to recommended levels

The total amount in each food group is then compared to the Core Food Group Model. The bread and cereal group for the 35-year-old female, for example, was 194 grams, which is below the Core Food Group Model recommended intake of 210 grams. Each food item where this is the case was then adjusted upwards to meet the recommended intake. A value of 290

grams was the final amount given to the 35-year-old female for bread and cereals, an amount higher than the 210 grams recommended because of her energy needs. Each food item was adjusted proportionally to produce the required overall total of 290 grams.

Column 5: Convert from equivalent units back to actual amounts of food

Now that all the food groups have been adjusted so as to conform with the recommended levels (e.g. for bread and cereals—290 grams) it is necessary to convert the food items back from equivalent units to the actual amounts consumed. Thus, for example rice needs to be converted from 12.45 'bread equivalent units' back to the actual corresponding amount of rice.

Column 6: Calculate weekly amount

The food budgets are calculated for one week's food intake. Therefore each food is multiplied by seven in order to determine the weekly amount of food.

Column 7: Adjust for inedible portion

A list of food with amounts eaten per day and per week is fixed at this stage. It is now necessary to consider how much of each food item was *purchased* but not actually *consumed*. That is, the inedible portion of food which is purchased at the supermarket, such as the skin, core and seeds of fruit and vegetables (e.g. oranges and pumpkin) and the bones and fat from certain cuts of meat (e.g. chops and chicken legs) which is not eaten but is included in the purchase quantity and hence in the purchase price.

With regard to rice, there is no inedible portion: 100 per cent is eaten. However, an apple for example has an inedible component. Apples are priced per kilogram of weight, so that the amount that was not eaten was taken into account when determining the actual amounts that were paid for at the supermarket. This component of the fruit needs to be added to the actual amount consumed in order to determine the amount purchased and paid for. It is the latter that enter into the calculation of the food budgets.

The National Food Authority has identified the percentage of each food which is regarded as edible. These factors (available for the period 1989 to 1995) have been taken into account in order to determine the amount of food that was purchased from the supermarket or butcher shop. They are expressed as the percentage of food that is edible (for example, 92 per cent of an apple is edible) and are listed as percentages in column 7 of the spreadsheet.

Column 8: Addition of the inedible portion of each food item

The percentage of the inedible component of food is taken into account at this stage by calculating how much food would need to be purchased in order to provide for the consumption of the actual amount of food.

For example, the National Food Authority reports that 92 per cent of an apple can be eaten: therefore it is necessary to use this percentage to estimate how many apples need to be purchased in order to allow for the consumption of 543 grams of apple per week. This amount is derived by dividing the consumption required by the proportion of each item that is edible, i.e. in the case of apples, $543/0.92 = 590$ grams. Therefore, 590 grams of apple need to be purchased in order to allow for the consumption of 543 grams of apple per week.

Column 9: Cooking factors

Not only does the amount of food actually purchased differ from the amount consumed because of the existence of inedible portions, there are also important changes in the weight of some foods during the cooking process.

Some foods weigh less at the time they are consumed than at the time they are purchased while others weigh more. Rice, for example, weighs less when purchased than after it has been cooked, which means that less rice needs to be purchased than the amount that is eaten.

The United Kingdom's Royal Society of Chemistry and Ministry of Agriculture, Fisheries and Food (Holland *et al.*, 1991) have determined cooking factors for a variety of foods, and these have been used to estimate the amount of food needed to be purchased in order to consume the given amount of food. The factors are listed in column 9 of the food profile spreadsheet.

Column 10: Calculate the cooking factors

This column shows the amount of each food item that enters into the BSU food budgets after allowing for the cooking factors described above. For example, the amount of rice eaten is 262 grams per week. However, there is a cooking factor of 170 per cent which increases the weight of the rice due to water absorption during the cooking process.

The estimate of the rice requirement is thus calculated as $262/1.70 = 154$ grams, which is the amount of rice that must be purchased in order to allow for the consumption of 262 grams of boiled rice.

Column 11 and 12: Current prices

These columns record the cost and weight of each food item as purchased from the supermarket or other type of food store.

Column 13: Cost of each food item

This step calculates the price per unit of each food item according to the price and weight set by the food stores, and is multiplied by the amount needed to be purchased for the consumption for each individual.

Column 14 and 15: Standard serving sizes

These two columns show the typical serving sizes (in cups and grams) of each food item. A typical serving size for rice, for example, is 1/2 cup or approximately 80 grams.

Column 16: Food before cooking

This column represents the amount of food that is purchased before weight changes occur during the cooking process.

Column 17: Weekly serves of each food item

This step calculates the approximate serving size of each food item per week. For example, 262 grams of rice are assumed to be eaten per week (before cooking). One serve of rice weighs approximately 80 grams. Therefore, the 35-year-old female consumes approximately three serves of rice per week. This final step provides a guide to the number of servings of each food item, which can help to formulate menus based on typical serving sizes.

Column 18: Daily serves of each food item

Finally, the weekly serves in Column 17 are converted into their daily equivalents.

Table 5.A.1: Illustrative Food Budget Spreadsheet for the 35-Year-old Female, Working Full-time (Modest but Adequate Standard)

1 Food groups	2 Food intake	3 Food units	4 Core food group	5 Actual food portions	6 Weekly food intake	7 Edible portion	8 Plus waste*	9 Cooking factors	10 Food bought	11 Shop price of foods	12 Net weight of shop foods	13 Cost of food	14 Serving sizes	15 Serving size	16 Food minus cooking factor	17 Serves per week	18 No. of serves per day
	gm/day	unl/day	unt/day	gm/day	gm/wk	(%)	g/week	(%)	gm/wk	\$	gm/food	\$/wk	grams				
Cereals																	
Boiled rice	25	8.3	12.5	37	262.1	100	262.1	170	154.2	1.39	1,000	0.21	1/2 cup:cooked	80	262.1	3	0.5
Bread roll	11	11.0	16.5	16	115.3	100	115.3	100	115.3	1.55	120	1.49	1/2 roll	30	115.3	4	0.5
Bread sliced	77	77.0	115.3	115	807.4	100	807.4	100	807.4	2.78	650	3.45	1 slice	30	807.4	27	3.8
Breakfast cereal	44	66.0	98.9	66	461.3	100	461.3	100	461.3	2.89	750	1.78	2bix	30	461.3	15	2.2
Crispbread-cracker	3	8.2	12.3	4	31.5	100	31.5	100	100	31.5	250	0.21	1	20	31.5	2	0.2
Crumpet	5	5.0	7.5	7	52.4	100	52.4	90	58.3	1.48	300	0.29	1	55	52.4	1	0.1
Fried rice	0	0.0	0.0	0	0.0	100	0.0	94	0.0	2.34	350	0.00	1/2 cup	80	0.0	0	0.0
Noodles	8	2.7	4.0	12	83.9	100	83.9	250	33.6	0.47	85	0.19	1/2 cup	80	83.9	1	0.1
Pasta	19	6.3	9.5	28	199.2	100	199.2	170	117.2	1.64	500	0.38	1/2 cup	80	199.2	2	0.4
Plain biscuit	5	9.1	13.6	7	52.4	100	52.4	100	52.4	1.26	250	0.26	2bisc	30	52.4	2	0.2
Porridge	0	0.0	0.0	0	0.0	100	0.0	86	0.0	2.16	300	0.00	dry	30	0.0	0	0.0
Total		193.6	290.0	295	2,065.6												8.2
Fruit																	
Apple	69	69.0	77.5	78	542.7	92	589.9	100	589.9	2.99	1,000	1.76	1 small	130	589.9	5	0.6
Apricot-canned	5	5.0	5.6	6	39.3	100	39.3	100	39.3	2.22	825	0.11	1	30	39.3	1	0.2
Apricot dried	0	0.0	0.0	0	0.0	100	0.0	100	0.0	2.80	200	0.00	5	30	0.0	0	0.0
Banana	63	63.0	70.8	71	495.5	62	799.2	100	799.2	2.49	1,000	1.99	1	150	799.2	5	0.8
Fruit salad-can	11	11.0	12.4	12	86.5	100	86.5	100	86.5	1.82	825	0.19	1/2 cup	125	86.5	1	0.1
Grapefruit	0	0.0	0.0	0	0.0	69	0.0	100	0.0	1.99	1,000	0.00	1/2 med	100	0.0	0	0.0
Grapes	7	7.0	7.9	8	55.1	98	56.2	100	56.2	1.99	1,000	0.11	1 bunch	200	56.2	0	0.0
Mandarin	0	0.0	0.0	0	0.0	76	0.0	100	0.0	1.89	1,000	0.00	1 med	120	0.0	0	0.0
Melon	6	6.0	6.7	7	47.2	66	71.5	100	71.5	2.99	1,800	0.12	1/2 melon	75	71.5	1	0.1
Nectarine	5	5.0	5.6	6	39.3	93	42.3	100	42.3	3.99	1,000	0.17	1 small	60	42.3	1	0.1
Orange	54	54.0	60.7	61	424.7	77	551.6	100	551.6	2.99	1,000	1.65	1 med	230	551.6	2	0.3
Peach	12	12.0	13.5	13	110.1	90	122.3	100	122.3	3.99	1,000	0.49	1 med	115	122.3	1	0.2

Table 5.A.1: Illustrative Food Budget Spreadsheet for the 35-Year-old Female, Working Full-time (Modest but Adequate Standard)
 (Continued)

1 Food groups	2 Food intake	3 Food units	4 Core food group	5 Actual food portions	6 Weekly food intake	7 Edible portion	8 Plus waste*	9 Cooking factors	10 Food bought	11 Shop price of foods	12 Net weight of shop foods	13 Cost of food	14 Serving sizes	15 Serving size	16 Food minus cooking factor	17 Serves per week	18 No. of serves per day
	gm/day	unt/day	unt/day	gm/day	gm/wk	(%)	g/week	(%)	gm/wk	\$	gm/food	\$/wk	grams				
Peach-canned	14	14.0	15.7	16	100.1	100	110.1	100	110.1	1.53	425	0.40	1/2 cup	125	110.1	1	0.1
Pear	0	0.0	0.0	0	0.0	90	0.0	100	0.0	0.99	1,000	0.00	1/2 cup	125	0.0	0	0.0
Pineapple	0	0.0	0.0	0	0.0	100	0.0	100	0.0	1.09	450	0.00	1/2 cup	125	0.0	0	0.0
Plum	17	17.0	19.1	19	133.7	96	139.3	100	139.3	3.99	1,000	0.56	1 med	100	139.3	1	0.2
Sultanas	4	4.0	4.5	4	31.5	100	31.5	100	31.5	2.20	500	0.14	handful	20	31.5	2	0.2
Total		267.0	300.0	300	2,115.7	3.99									0.0		3.0
Vegetables																	
Asparagus can	1	1.0	1.2	1	8.2	64	12.9	100	12.9	2.93	340	0.11	3 spears	60	12.9	0	0.0
Beans-green	13	13.0	15.3	15	107.2	95	112.9	100	112.9	1.69	500	0.38	1/2 cup	60	112.9	2	0.3
Beetroot	2	2.0	2.4	2	16.5	67	24.6	100	24.6	0.76	450	0.04	2 slices	30	24.6	1	0.1
Broccoli	10	10.0	11.8	12	82.5	56	147.3	100	147.3	2.76	500	0.81	1 cluster	45	147.3	3	0.5
Brussel Sprout	2	2.0	2.4	2	16.5	68	24.3	110	22.1	1.49	1,000	0.03	1 med	120	24.3	0	0.0
Cabbage	5	5.0	5-9	6	41.2	81	50.9	110	46.3	2.99	3,000	0.05	1/2 cup	40	50.9	1	0.2
Capsicum	3	3.0	3.5	4	24.7	84	29.5	100	29.5	1.99	1,000	0.06	1/2 cup	60	29.5	0	0.1
Carrot	18	18.0	21.2	21	148.5	90	165.0	90	183.3	1.99	1,000	0.36	1 med	140	165.0	1	0.2
Cauliflower	10	10.0	11.8	12	82.5	57	144.7	100	144.7	1.29	1,624	0.11	1/2 cup	100	144.7	1	0.2
Celery	6	6.0	7.1	7	49.5	79	62.7	100	62.7	1.99	1,000	0.12	1 pc	30	62.7	2	0.3
Cucumber	6	6.0	7.1	7	49.5	100	49.5	100	49.5	2.99	1,000	0.15	4-5 slices	30	49.5	2	0.2
Egg Plant	4	4.0	4.7	5	33.0	84	39.3	90	43.6	2.79	1,000	0.12	2 slices	60	39.3	1	0.1
Lettuce	12	12.0	14.1	14	99.0	87	113.8	100	113.8	1.69	700	0.27	3 leaves	30	113.8	4	0.5
Mushroom	0			0	0.0	100	0.0	100	0.0	6.99	1,000	0.00	1/2 cup	60	0.0	0	0.0
Onion	13	13.0	15.3	15	107.2	89	120.5	90	133.9	0.99	1,000	0.13	5 rings	50	120.5	2	0.3
Peas	14	14.0	16.5	16	115.5	100	115.5	90	128.3	1.44	500	0.37	1/4 cup	35	115.5	3	0.5
Potato	57	57.0	67.2	67	470.2	100	470.2	90	522.4	0.89	1,000	0.46	1 med	150	470.2	3	0.4
Potato Salad	2	2.0	2.4	2	16.5	100	16.5	100	16.5	6.49	200	0.54	1/2 cup	90	16.5	0	0.0
Pumpkin	31	31.0	36.5	37	255.7	80	319.7	90	355.2	0.99	1,000	0.35		100	319.7	3	0.5

Table 5.A.1: Illustrative Food Budget Spreadsheet for the 35-Year-old Female, Working Full-time (Modest but Adequate Standard) (Continued)

Table 5.A.1: Illustrative Food Budget Spreadsheet for the 35-Year-old Female, Working Full-time (Modest but Adequate Standard)
 (Continued)

1 Food groups	2 Food intake	3 Food units	4 Core food group	5 Actual food portions	6 Weekly food intake	7 Edible portion	8 Plus waste*	9 Cooking factors	10 Food bought	11 Shop price of foods	12 Net weight of shop foods	13 Cost of food	14 Serving sizes	15 Serving size	16 Food minus cooking factor	17 Serves per week	18 No. of serves per day
	gm/day	unt/day	unt/day	gm/day	gm/wk	(%)	g/week	(%)	gm/wk	\$	gm/food	\$/wk	grams				
Dairy foods																	
Cheese	21	131.3	121.5	19	136.0	100	136.0	100	136.0	4.02	500	1.09	3cm cube	30	136.0	5	0.6
Milk-skim	300	309.0	286.0	278	1,943.5	100	1,943.5	100	1,943.5	0.73	600	2.36	1 glass	200	1,943.5	10	1.4
Milk fat red	0	0.0	0.0	0	0.0	100	0.0	100	0.0	1.33	1,000	0.00	1 glass	200	0.0	0	0.0
Yoghurt	80	100.0	92.5	74	518.3	100	518.3	100	518.3	1.40	400	1.81	1 ctn	200	518.3	3	0.4
Total	401	540.3	500.0	371	2,597.9												2.4
Other																	
Apple juice	0			0	0.0	100	0.0	100	0.0	3.39	2,000	0.00	1 glass	200	0.0	0	0.0
Bacon	2			2	14.0	95	14.7	58	25.4	7.98	1,000	0.20	mid rasher	50	14.7	0	0.0
BBQ Sauce	0			0	0.0	100	0.0	100	0.0	1.61	250	0.00	1 tabspn	30	0.0	0	0.0
Beer	0			0	0.0	100	0.0	100	0.0	28.0	9,000	0.00	middy	284	0.0	0	0.0
Bran	1			1	7.0	100	7.0	100	7.0	0.46	500	0.01	1 tbsp	12	7.0	1	0.1
Cake	10			10	70.0	100	70.0	100	70.0	2.96	350	0.59	1 slice	60	70.0	1	0.2
Canned Soup	10	5.0		5	35.0	100	35.0	89	39.3	1.44	425	0.13	1 cup	250	35.0	0	0.0
CC's	0			0	0.0	100	0.0	100	0.0	2.05	230	0.00	1 pkt	50	0.0	0	0.0
Chips	12			12	84.0	100	84.0	100	84.0	2.37	1,000	0.20		100	84.0	1	0.1
Chocolate	6			6	42.0	100	42.0	100	42.0	2.73	. 250	0.46	1 row	30	42.0	1	0.2
Chocolate bar	0			0	0.0	100	0.0	100	0.0	1.13	50	0.00	1 bar	60	0.0	0	0.0
Coffee	150	3.0		3	21.0	100	21.0	100	21.0	5.31	150	0.74	1 spoon	5	21.0	4	0.6
Cafe latte	28.5			29	199.5	100	199.5	100	199.5	1.60	200	1.60	1 cup	200	199.5	1	0.1
Coke	40			40	280.0	100	280.0	100	280.0	1.38	1,250	0.31	1 can	375	280.0	1	0.1
Cordial	0	0.0		0	0.0	100	0.0	100	0.0	3.19	2,000	0.00	1 tbsp	20	0.0	0	0.0
Cream	1			1	7.0	100	7.0	100	7.0	0.86	300	0.02	1 tbsp	20	7.0	0	0.1
Crisps	0			0	0.0	100	0.0	100	0.0	0.80	50	0.00	1 pkt	50	0.0	0	0.0
Custard	6			6	42.0	100	42.0	100	42.0	0.73	110	0.28	1/2 cup	125	42.0	0	0.0
Doughnut	0			0	0.0	100	0.0	100	0.0	0.60	70	0.00	1	70	0.0	0	0.0

Table 5.A.1: Illustrative Food Budget Spreadsheet for the 35-Year-old Female, Working Full-time (Modest but Adequate Standard)
(Continued)

1 Food groups	2 Food intake	3 Food units	4 Core food group	5 Actual food portions	6 Weekly food intake	7 Edible portion	8 Plus waste*	9 Cooking factors	10 Food bought	11 Shop price of foods	12 Net weight of shop foods	13 Cost of food	14 Serving sizes	15 Serving size	16 Food minus cooking factor	17 Serves per week	18 No. of serves per day
	gm/day	unt/day	unt/day	gm/day	gm/wk	(%)	g/week	(%)	gm/wk	\$	gm/food	\$/wk		grams			
Dressing-poly	2			2	14.0	100	14.0	100	14.0	2.12	250	0.12	1 tbspn	20	14.0	1	0.1
Fancy biscuit	2			2	14.0	100	14.0	100	14.0	3.54	500	0.10	1 bisc	30	14.0	0	0.1
Flour	1			1	7.0	100	7.0	100	7.0	1.80	1,000	0.01	2 tbspn	25	7.0	0	0.0
Frankfurts	0			0	0.0	100	0.0	67	0.0	3.99	1,000	0.00	1	40	0.0	0	0.0
Fritz	0			0	0.0	100	0.0	100	0.0	1.99	1,000	0.00	1 slice	30	0.0	0	0.0
Fruit drink	23			23	161.0	100	161.0	100	161.0	0.80	250	0.52	1 glass	200	161.0	1	0.1
Fruit juice	78			78	546.0	100	546.0	100	546.0	1.19	1,000	0.65	1 glass	200	546.0	3	0.4
Fruit pie	3			3	21.0	100	21.0	100	21.0	2.22	600	0.08	1/8 pic	75	21.0	0	0.0
Garlic	1			1	7.0	83	8.4	100	8.4	8.99	1,000	0.08	pinch	5	8.4	2	0.2
Gravy	3			3	21.0	100	21.0	100	21.0	1.58	200	0.17	1/4 cup	60	21.0	0	0.1
Hamburger	4			4	28.0	100	28.0	100	28.0	2.60	205	0.36	1 burger	205	28.0	0	0.0
Honey	5			5	35.0	100	35.0	100	35.0	2.44	500	0.17	1 tspn	5	35.0	7	1.0
Ice-cream	10			10	70.0	100	70.0	100	70.0	4.45	2,000	0.16	1 scoop	50	70.0	1	0.2
Jam	5			5	35.0	100	35.0	100	35.0	2.34	500	0.16	1 tspn	5	35.0	7	1.0
KFC	0			0	0.0	100	0.0	100	0.0	2.00	67	0.00	1 pc	67	0.0	0	0.0
Lasagne(pkt)	8			8	56.0	100	56.0	91	61.5	3.10	400	0.48		150	56.0	0	0.1
Lemonade	26			26	182.0	100	182.0	100	182.0	1.30	375	0.63	1 can	375	182.0	0	0.1
Lollies	5			5	35.0	100	35.0	100	35.0	0.45	25	0.63	1 lolly	8	35.0	4	0.6
Low alcohol beer	0			0	0.0	100	0.0	100	0.0	26.50	9,000	0.00	1 can	375	0.0	0	0.0
Margarine	15			15	105.0	100	105.0	100	105.0	1.68	500	0.35	1 tspn	5	105.0	21	3.0
Mayonnaise	2			2	14.0	100	14.0	100	14.0	2.22	340	0.09	1 tspn	5	14.0	3	0.4
Meat pie	5			5	35.0	100	35.0	100	35.0	1.40	150	0.33	1 pic	175	35.0	0	0.0
Mild curry powder	1			1	7.0	100	7.0	100	7.0	1.08	75	0.10	1 tspn	5	7.0	1	0.2
Milk flav drink	0			0	0.0	100	0.0	100	0.0	3.23	1,500	0.00	1 glass	200	0.0	0	0.0
Milo	3			3	21.0	100	21.0	100	21.0	1.88	250	0.16	1 tspn	5	21.0	4	0.6
Muesli bar	0			0	0.0	100	0.0	100	0.0	2.83	250	0.00	1 bar	35	0.0	0	0.0

Table 5.A.1: Illustrative **Food** Budget Spreadsheet for the 35-Year-old Female, Working Full-time (Modest but Adequate Standard)
(Continued)

1 Food groups	2 Food intake	3 Food units	4 Core food group	5 Actual food portions	6 Weekly food intake	7 Edible portion	8 Plus waste*	9 Cooking factors	10 Food bought	11 Shop price of foods	12 Net weight of shop foods	13 Cost of food	14 Serving sizes	15 Serving size	16 Food minus cooking factor	17 Serves per week	18 No. of serves per day
	gm/day	unt/day	unt/day	gm/day	gm/wk	(%)	g/week	(%)	gm/wk	\$	gm/food	\$/wk		grams			
Nuts	0			0	0.0	100	0.0	100	0.0	2.55	375	0.00		30	0.0	0	0.0
Packet soup	14			14	98.0	100	98.0	89	110.1	1.79	800	0.25	1 cup	200	98.0	0	0.1
Peanut butter	2			2	14.0	100	14.0	100	14.0	2.80	375	0.10	1 tspn	5	14.0	3	0.4
Pickled gherkin	0			0	0.0	100	0.0	100	0.0	1.97	520	0.00	1	10	0.0	0	0.0
	6			6	42.0	100	42.0	100	42.0	8.90	500	0.75	1/6 pizza	100	42.0	0	0.1
Raisin bread	2			2	14.0	100	14.0	100	14.0	2.09	690	0.04	1 slice	30	14.0	0	0.1
Salami	0			0	0.0	100	0.0	100	0.0	7.99	1,000	0.00	2 slices	30	0.0	0	0.0
Sausage	7			7	49.0	100	49.0	67	73.1	3.29	1,000	0.24	1 sausage	40	49.0	1	0.2
Sausage roll	0			0	0.0	100	0.0	100	0.0	2.31	400	0.00	1 small	40	0.0	0	0.0
Savoury biscuit	0			0	0.0	100	0.0	100	0.0	1.76	200	0.00	4 bisc	30	0.0	0	0.0
Seafood	0			0	0.0	100	0.0	100	0.0	0.99	1,000	0.00	1 cup	100	0.0	0	0.0
Spring rolls	0			0	0.0	100	0.0	100	0.0	3.00	500	0.00	1 roll	170	0.0	0	0.0
Stir-fry veg	4			4	28.0	100	28.0	80	35.0	2.79	500	0.20		100	28.0	0	0.0
Sugar	10			10	70.0	100	70.0	100	70.0	1.13	1,000	0.08	1 tspn	5	70.0	14	2.0
Tea	293	0.6		1	4.1	100	4.1	100	4.1	0.99	45	0.09	It-bag	0.5	4.1	8	1.2
Tomato paste	1			1	7.0	100	7.0	100	7.0	1.69	150	0.08	1 tspn	5	7.0	1	0.2
Tomato sauce	2			2	14.0	100	14.0	100	14.0	1.69	600	0.04	1 tspn	5	14.0	3	0.4
Vegemite	1			1	7.0	100	7.0	100	7.0	2.60	235	0.08	1 tspn	5	7.0	1	0.2
Vegetable oil	5			5	35.0	100	35.0	100	35.0	1.06	500	0.07	1 tspn	5	35.0	7	1.0
Water	1,500			1,500	10,500.0	100	10,500.0	t00	10,500.0	0.00	0	0.00	1 cup	250	10,500.0	42	6.0
Wine	24			24	168.0	100	168.0	100	168.0	7.50	750	1.68	1 glass	120	168.0	1	0.2

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CHAPTER 6: THE CLOTHING AND FOOTWEAR BUDGET*

6.1 Introduction

Clothing and footwear are essential elements of any household budget, providing not only for warmth, comfort and protection but also allowing individuals a sense of identity and self-esteem in both their private and professional lives.

The normative aspects of budget standards are especially important in the context of this budget—in making decisions, not only about the range, type and quality of clothing and footwear needed for protection from the elements, but also in representing the individual physical, social and aesthetic needs that clothes provide.

This recognition of 'other' clothing needs moves beyond providing a number of basic items for all, to include an appropriate wardrobe of clothes and footwear which permits individuals to participate in the labour market, as well as in social activities appropriate to their age, sex and lifestyle, including sport, recreation and 'special' occasions.

Including such items in the clothing and footwear budget is important because both the modest but adequate and low cost standards are designed to permit an appropriate degree of economic and social participation, as explained in Chapter 2.

As with the other component budgets, the indicative clothing and footwear budgets presented below have been modified and revised in light of comments received on an initial version of the budget, as well as in response to the feedback from a series of focus group discussions designed to provide input into the final budget standards. The prices used here to derive the clothing and footwear are for February 1997, the common pricing period determined for all budget components.

6.2 Methods

Unit of Analysis

Profiles of clothing and footwear requirements relevant to the modest but adequate and low cost standards have been drawn up for the eight individuals that are included in the 12 basic BSU household types. The broad specification of these two standards has been summarised earlier, as have the characteristics of each of the household types for which budget standards are being developed. This has involved specifying the employment status, marital status and (where relevant) the number, age and gender of each child in the household.

This budget was prepared by Marilyn McHugh. She would like to acknowledge the advice and support provided by the people who assisted with conducting the clothing and footwear surveys, especially Elizabeth Orr and Fiona Taylor from the Smith Family in Sydney, and Carolyn Paulin and Mary Mahoney and students from the Food and Nutrition Program at Deakin University. Thanks are also due to the staff members at the SPRC who helped with piloting, suggestions and comments on the survey instrument and to Lisa Amor (in Melbourne). Brenton Newey, Maria Kapsimalis, Sterri Perri and other staff members at Target in Pagewood, Sydney. Various school principals in the Hurstville Local Government Area provided very helpful information on the costs of school uniforms. The final text of the paper benefited from editorial advice and assistance provided by Jonathan Bradshaw and Peter Saunders.

For ease of exposition, the following discussion centres on the 12 basic household types only, although clothing and footwear budgets have been developed for all 46 detailed BSU households (some of which have identical budgets).

As in the case of the food budget, a separate clothing and footwear budget has been developed for each individual and these are then aggregated up to form the household budgets. There are therefore no economies of scale allowed for in constructing the clothing and footwear budget, nor is an allowance made for 'joint consumption' or the sharing of clothes amongst individuals in a given household—at least not as an explicit strategy for reducing clothing costs.

The 12 basic BSU households contain the following eight separate individuals:

- a 35-year-old female;
- a 40-year-old male;
- a 70-year-old male;
- a 70-year-old female;
- a 3-year-old girl;
- a 6-year-old girl;
- a 10-year-old boy; and
- a 14-year-old boy.

These individuals have been chosen so that their characteristics are representative of a broad spectrum of different stages in the life course, extending from early childhood, through to adolescence, working age and retirement.

There are, of course, other important stages that are not covered including very young children and older teenagers. In some of the European countries where budget standards have been developed, there is even a pre-birth category, which allows the budgets to reflect the costs associated with the preparation of childbirth. Extending the budget standards to include these individuals is a task for the future.

Developing a Model for Determining Clothing Quantity and Quality

The budget standards that have been developed for clothing and footwear items in other countries, predominantly in the northern hemisphere, are useful, but not entirely suitable guides for identifying the clothing needs of Australians. The Australian budgets are therefore based on normative assumptions about what items are required by the individuals under Australian climatic conditions and take into consideration seasonal requirements to ensure physical comfort and social ease.

The starting point, however, has been the detailed clothing and footwear budgets designed and priced by the Family Budget Unit as part of the UK Budget Standards (McCabe and Rose, 1992), from which the Australian budgets have been developed by a process of 'incremental modification'².

No use has thus been made of second-hand clothes and 'hand-me-downs' for any of the clothing and footwear budgets, as explained in Chapter 2.

In fact, as McCabe and Rose (1993, p. 66) make clear, the UK clothing and footwear budgets were themselves informed by the corresponding budgets developed in Canada, by the Social Planning Council of Toronto, and in Sweden by the National Board for Consumer Policies.

In constructing a set of Australian clothing and footwear budgets, the first obstacle that has to be confronted is that there is very little readily available up-to-date (or even out-of-date!) information on the number and type of the numerous clothing and footwear items worn by Australian households.³ To overcome this problem, two small surveys were conducted under the general guidance of the Budget Standards Unit to provide an initial indication of the number of items in individual wardrobes.⁴

Both surveys took as their starting point the lists of clothing and footwear items for men, women and children contained in the UK budgets. In forming the survey instrument, the UK lists were altered where appropriate to conform with similar items included in the clothing and footwear classifications taken from the Australian *Household Expenditure Survey (HES), 1988-89*.⁵

The list of items were assumed to cover the clothing needs of each household member, including for their home, work, school and leisure purposes, although preliminary piloting of the questionnaire to determine the appropriateness of the items included led to the inclusion of some additional items.⁶

Four separate lists of clothing and footwear items were drawn up:—for men, women, boys and girls. The lists were kept as succinct as possible to encourage participants to complete them⁷. For example, the women's clothing and footwear list, which was the same for both the 35-year-old and 70-year-old women, included 41 basic items covering outerwear, other casual clothes, underwear, nightwear, accessories and footwear.

A similar list of basic clothing and footwear items was drawn up to cover the children in the various household types with the inclusion of a range of school clothing items. The complete lists of the survey clothing and footwear items for women and children are presented for illustrative purposes in Table 6.1.

Lovering's (1984) estimates of the costs of children includes an allowance for the costs of clothing and footwear items, based on Piachaud's study for the UK (Piachaud, 1979). In the Lovering study several smaller surveys of the costs of clothing conducted in Australia in the early 1980s are also described and costs are provided.

There were no specific funds available to conduct the surveys and the BSU is grateful to two institutions who offered assistance. One, organised through a BSU Steering Committee member (Carolyn Paulin), was undertaken with the School of Nutrition and Public Health at Deakin University in Melbourne. The second survey was undertaken as a result of a personal approach to The Smith Family in Sydney. Further information on the results of the two surveys is contained in Appendix 6.A.

In drawing up the list of clothing and footwear items, use was made of 1988-89 HES as the 1993-94 HES was not available at the time. It should be noted, however, that the lists of clothing and footwear are quite similar in both these expenditure surveys. The 1988-89 *Household Expenditure Survey HES/CCL Index* classifies all commodities included in the survey both alphabetically and numerically for ease of identifying in what sections items are grouped. Use was made of a number of the basic Clothing and Footwear items (301 through to 336) in developing the survey instrument.

Several issues in relation to the clothing budget that were raised by members of the Steering Committee were addressed in the final development of the questionnaire. These issues related to: the 'actual' number of clothing items that were worn (as opposed to the number owned but no longer actually worn on an on-going basis); how people at different levels of income shop; whether use is made of second-hand clothing stores; and how popular are purchases of 'sale' items of clothing and footwear.

In hindsight, this appears to have been a reasonable approach as it was noted in one evaluation of the participation in the survey that: 'there was a perception that some respondents felt "pressed for time" and were keen to expedite the survey as quickly as possible with a minimum of fuss and time'. As it was, some respondents found the survey 'too long'.

Table 6.1: List of Survey Clothing and Footwear Items for Women and Children

Women	Children
dresses—winter	jacket/parka—winter
dresses—summer	dresses/pinafores
suits—summer/winter	skirts
jacket—summer	trouser/slacks—summer
jacket/parka—winter	trousers/cords—winter
coat	jeans
slacks/trousers—summer/winter	leggings
jeans	jumpers/cardigans
skirts—summer	shirts/blouses, long sleeves
skirts—winter	shirts/blouses, short sleeves
shirts/blouses, long sleeves	school dress/pinafore
shirts/blouses, short sleeves	school skirts
vests/waistcoats	school pants, short
jumpers/cardigans	school pants/long
short or sleeveless tops	school blazer/jacket
long sleeved tops	school jumper
shorts	school shirts/blouses short sleeves
swimmers	school track suit
track tops/sweatshirts	school sports uniform
track pants	school tie
rain coat/jacket	short sleeved (or tank) top
briefs/underpants	long sleeved tops
summer/winter	shorts (including board shorts)
singlets/spencers	swimming costume
summer/winter	track pants
bras	track tops/sweatshirts
petticoats/slips	rain coat/jacket
stockings/panty hose	underwear—briefs/panties
tights/leggings	underwear—singlets
leotards/bodysuits	belts
socks (pairs)	socks (including school)
belts	stockings/tights (including school)
handkerchiefs	hats/headgear (including school)
gloves/mittens (pairs)	summer night wear
scarves	winter night wear
hats/other headgear	dressing gown/robe
winter night wear	shoes/sandals/boots (including school)
summer night wear	sandshoes/joggers (including school)
dressing gown/robe	thongs
shoes/boots (pairs)	gum boots
sandshoes/joggers (pairs)	slippers/ugg boots
sandals/thongs (pairs)	
slippers/ugg boots (pairs)	

The self-administered questionnaire provided participants with a list of instructions on what type of information was required and what members of the household were to be included. For example, participants were asked to fill in the number of each clothing and footwear item listed on the sheet that was currently in their, or their partner's, or their children's wardrobes, as appropriate. To avoid respondents overstating the quantity of any particular item the questionnaire asked respondents to include *only items that had actually been worn within the last 12 months.*

The questionnaire classified four types of retail outlets at which all clothing and footwear items were purchased by participants in an attempt to capture information on the price paid and to indicate the quality of each item.

The first of these outlets was described as providing clothing items that were of 'reasonable quality', which roughly equates to low cost or budget shopping; the second, were 'middle of the road' items could be bought, was designed to reflect modest but adequate shopping; the third, where 'expensive' items could be bought relates to top quality shops; and the fourth type of outlet referred to covered 'second-hand' (recycled) clothing shops, opportunity shops and markets.

Respondents were asked to tick the group or type of retail outlets that were most appropriate for the majority of their purchases of each particular item, and also to note any specific items that were bought 'when on sale'. A number of questions covering the sex, age, household type, labour force status, numbers and ages of children and income group of respondents and their partner (where appropriate) were also included on the questionnaire.

Having completed the development of the questionnaire, the survey instrument was then used to conduct two clothing and footwear surveys in late 1996. One survey, using a quota sampling technique, was carried out on behalf of the BSU research team by a group of second year undergraduate students in Family and Consumer Studies under the supervision of two Senior Lecturers at Deakin University in Melbourne. This resulted in 120 completed interviews covering four household types.

The second, a postal survey of approximately 1,150 low income families around Australia, was conducted by the Smith Family on behalf of the BSU.⁸ Over 500 completed questionnaires were returned, corresponding to an unadjusted response rate of 44 per cent. The results of these surveys have been used to assist in determining both the type and quantity of items included in the BSU clothing and footwear budgets.

Survey Results: Adults

Students from Deakin University selected the following categories to include in their survey: males (aged 35 to 40 years) in full-time work (43 respondents); females (aged 30 to 40 years)

One other area where very few data exist is on the costs of schooling for both primary and secondary schools in relation to the costs of excursions, camps, sporting activities and (in the case of secondary schooling) details of elective subject areas. It had been hoped to include a small number of questions in relation to these costs of schooling within the Smith Family clothing survey to inform the development of the household goods and services budget. In the event, the Smith Family decided that the issue of schooling costs was of great importance to them in relation to their Educate School Assistance Plan which supports over 2,300 families. They therefore decided to conduct a companion survey on schooling costs at the same time as the clothing and footwear survey. A similar number of families (1,150) throughout Australia were asked to participate in both surveys. Some of the results of the schooling costs survey have been used to inform decisions relating to the costs for both primary and secondary students in the development of the household goods and services budget (see Chapter 7).

in full-time work (48 respondents); females (aged 30 to 40 years) who were unemployed (37 respondents); and females (aged 65 to 75 years) who were retired (30 respondents). No children were included in the Melbourne clothing survey.

The findings from the Melbourne survey have been used in determining the appropriate quantities and types of clothing and footwear items included in the clothing budgets at both standards for the 35-year-old female (employed and unemployed); the 40-year-old male; the 70-year-old male (based on survey data collected from the 40-year-old male); and the 70-year-old female.

However, in the light of comments and suggestions given to the BSU by focus group participants (see Chapter 13) and members of the BSU Steering Committee, some adjustments have been made to both the quantities and the lifetimes assigned to the clothing budget items for various individuals. The changes that have been made are discussed in greater detail in the appropriate sections below.

The results from the Melbourne survey provided the basis for expanding the UK clothing and footwear budgets into a more elaborate and detailed description of specific clothing and footwear items relevant to Australian conditions and behaviour. The more detailed lists were then used to complete the final pricing for all individual budgets.

Thus, for example, in the case of jumpers and cardigans, where the survey indicated that the median number included in a woman's wardrobe was 10, this number was broken down to cover both winter and summer knitwear items equally with a variety of garments selected based on the sleeve length, type of fabric and style of garment, as well as their availability.

Cost was more often than not an important factor for choosing whether and how to include a particular garment, with the lowest price being used in the case of the low cost budget and a price around the average of those available (where possible) being used for the modest but adequate budget. (Table 6.2 provides further details of the items included in the final budget standard for women).

Survey Results: Children

Decisions regarding what to include in children's wardrobes was informed by the results derived from the Smith Family clothing survey. The respondents to that survey were families receiving assistance from the Smith Family's EDU-CATE School Assistance Plan (ESAP), which targets children 12 to 16 years of age from low income families.

Not surprisingly, due to the targeting of the ESAP, a higher proportion of teenage children's clothing and footwear wardrobes were included in the completed questionnaires, compared to those of younger children. The high response rate for teenage wardrobes was accentuated, because in the survey instrument sent out to ESAP families, only one children's list was provided.

Most families, therefore, filled in the data for the older child in receipt of ESAP, although some families were very innovative, either photocopying or rewriting the children's list or using different colour pens to provide information for a number of their children, including younger ones.

Table 6.2: Women's Clothing and Footwear Items used to Develop the Modest but Adequate and Low Cost Budgets

Basic Clothing Wardrobe	Underwear/Nightwear
Parka	briefs (hipsters)
rain jacket	briefs (full briefs)
winter slacks, smart	singlets
pants suit, smart	bra
jeans	bra
winter dress (smart)	waist slip
winter skirt (pleated)	winternightie
winter skirt (straight)	winter pyjamas
winter jumper, (warm)	summer nightie
winter jumper, (light weight)	summer pyjamas
winter cardigan	winter pyjamas
skivvy	summer nightie
tracksuit bottoms	winter dressing gown
tracksuit tops	stockings
smart suit	stockings
special occasion dress	tights
long sleeve blouse	socks
smart blouse	sport socks
waistcoat/vest	
summer jacket	Accessories
sun dress	sun hat (straw)
summer dress, casual	sun hat (peaked cap)
summer dress, smart	scarf, smart
summer skirt (full)	gloves
summer skirt (fitted)	belt, smart
summer slacks, smart	belt, casual
summer slacks, casual	handkerchiefs
shorts, smart	swim goggles
shorts, casual	swim cap
summer sweater (long sleeves)	hand bag
summer sweater (short sleeves)	casual bag
summer cardigan	wallet
summer blouse	umbrella
smart summer blouse	
t-shirt	Shoes
tank top	shoes, court (low heel)
polo t-shirt	shoes, court (medium heel)
leggings	sandals
bicycle shorts	boots
swim suit	joggers/trainers
	slippers, winter

Information was obtained on the clothing and footwear wardrobes of a three-year-old girl (12 responses); a six-year-old girl (23 responses); a 10-year-old boy (10 responses); and a 14-year-old boy (103 responses). This information has been used to help determine the types and quantities of garments for these various individuals based on a similar methodology to that used in the Melbourne survey described above.

There are some obvious difficulties arising from using data derived from a small survey of predominantly low income families for determining the quantities of clothing and footwear items to include in children's wardrobes at both the modest but adequate and low cost standards.

Feedback from the focus groups where the budgets for children's wardrobes were discussed emphasised how quickly children 'grow out of' and 'wear out' their clothes, in particular their footwear. There was general agreement within the focus groups of parents, that children require more pairs of shoes than the numbers originally allocated in the budgets.

In the light of these concerns and the comments provided by the focus groups in relation to quantities, the quantities of a number of clothing and footwear items were increased and some lifetimes shortened.

For example, in relation to school clothing for the six-, 10- and 14-year-olds, the number of shirts/blouses and socks were increased to facilitate the daily changing of these items during the school week, and two rather than one pair of school shoes were allocated for a 12-month period for the three school-age children.

An extra pair of shoes was allocated for the three-year-old child as well. The number of t-shirts allocated for the 14-year-old child was increased and, on the advice of parents in the focus groups, more expensive brand name joggers (purchased from a sports store chain) replaced the cheaper Target brand initially allocated for this age group.

Tables 6.A.1, 6.A.2 and 6.A.3 in Appendix 6.A summarise the data derived from the Melbourne and Smith Family Surveys which were used as the initial basis for calculating the numbers of each item for inclusion in various individuals' wardrobes. The final figures incorporated into the clothing and footwear budgets reflect the advice and suggestions received from the consultations held with focus groups and the comments provided by members of the BSU Steering Committee.

6. 3 Specific Issues in Developing the Clothing and Footwear Budget

Quantities

The budgets cover all of the clothing and footwear needs of each household member when they are at home, at work, at school, or engaging in leisure activity. Included in the budget are casual, work/school clothes, sport clothes, clothes for special occasions and seasonal clothes and appropriate footwear.

As Sydney enjoys a temperate climate, with mild winters and warm summers the budgets contain more summer than winter clothes, with allowance made for reduced life spans due to more frequent washing of lighter fabrics and colours and the result of the increased perspiration of the wearer.

The task of determining the quantities of items needed by each individual was made somewhat easier by the use of the survey data described above. The information on the numbers of each specific item of clothing and footwear contained in the completed questionnaires for men, women and children was used to derive the median figure for each specific item, by sex and age group and where possible, labour force participation.

This median figure was in most cases used as the benchmark to determine the specific quantity of clothing and footwear items allocated in the various budgets. Where the median was less than one for a particular item—for example, in the case of leotards/bodysuits in the 35-year-old and 70-year-old women's clothing budgets, the item was omitted from the budgets all together.

Pricing

The difference between the modest but adequate and low cost standards has been established by the use of different pricing structures in each of the two budget standards. Where possible, a price approximately in the middle of the observed range of retail prices for each item has been used in developing the modest but adequate budgets, and the lowest observed price when developing the low cost budgets.

The assumption has been made that clothes are laundered weekly or twice-weekly and that sufficient clothing is available to maintain personal cleanliness, especially in the case of children where some clothing items are usually changed daily due to the nature and location of their activities.

Lifetimes

The lifetimes of clothing and footwear items is the expected length of time for which individuals are expected to wear each item. There are several factors noted by the UK Family Budget Unit which make estimating clothing life spans problematic, including the fact that there is a lack of reliable information on the actual lifetimes of most clothing and footwear items.

It is also important to emphasise that the issue here relates not so much to the purely *physical* lifetime of each item, but rather to their *functional* lifetime which relates to the period for which item is actually worn by the owner. Changing fashion means that the functional lifetimes of many items are a good deal shorter than their physical lifetimes (although, as noted below, 'classic styles' have often been chosen so as to minimise these problems).

In any case, the lifetime of any specific article is related to its function, the number of similar items owned, how often they are worn and washed, the quality of the fabric and workmanship of the garment, and the prevailing fashion of the time and how rapidly it is changing. These considerations imply that judgments about the length of time a garment is worn have an important impact, but are often entirely subjective and thus subject to margins of error.

When the work on the clothing and footwear budget began, the only detailed information readily available on the lifetimes of clothing and footwear items was the work done developing the UK Budget Standards (McCabe and Rose, 1992). These findings have thus been used as a guide for estimating the life span of clothing and footwear items included in each of the Australian individual clothing and footwear budgets.

Specific Issues—Essential Protective Items

Because Australia experiences high levels of ultraviolet radiation (UVR) which is known to be highly damaging to exposed skin, the use of sunscreens, sunglasses, wide brimmed hats and protective clothing is recommended by the Australian Cancer Council to combat the potential hazards of too much exposure to UVR.

In recognition of the importance of minimising the risk of skin damage for all individuals in their recreational and leisure activities, various items of UPF (Ultraviolet Protection Factors) clothing have been included in the budgets. For children, for example, long sleeved 'rash' vests (a fitted lycra t-shirt, usually with a high neck and seams on the outside, originally worn by surfers and now popular more generally) have been included for swimming and surfing.

Also, all individuals have been allocated two different types of headgear, a wide brimmed hat and a baseball style cap (with flaps for children for protection from the sun on their ears and neck). Loose, lightweight but closely woven/knitted cotton t-shirts have also been included in the individual budgets.⁹

Clothing Styles

In most cases, basic or classic styles and ranges of clothes have been used as they generally stay in fashion for a number of years and therefore have a longer functional life span. They are also more likely to be found in different geographical locations, thus expanding the relevance of the resulting budgets.

In the UK clothing budget, this was found to be a reasonable decision as it reflected the buying patterns of women 'who said that "a style that won't date" was one of the major factors considered when buying a suit'. (McCabe and Rose, 1992, p. 8).

Pricing Issues

A large national retailer (Target) was chosen for pricing the majority of clothing and footwear items. Target operates in the Australian Discount Department Store market, with more than 112 stores in every State and Territory of Australia. Target stores feature a wide selection of men's, women's and children's apparel plus footwear.

The Target Brand has developed into the biggest-selling housebrand in Australia and is one of the most widely recognised company symbols in the country. Over 67 per cent of all merchandise sold by Target is under the Target label, with 98 per cent of apparel merchandise Target branded. Over 60 per cent of all merchandise sold is Australian-made and the cost of items is identical throughout all stores.¹⁰

Target's demographic research indicates that its core customer is predominantly female, aged between 21 and 45 years, married with or without children, lower to middle income and may work at least part-time (Target Australia P/L, 1997).

One implication of this demographic profile is that the Target retail stores do not stock a wide selection of clothing suitable for older people, and older women in particular are not well catered for by Target as regards outerwear, that is, dresses, skirts, slacks and jackets. Because

⁹ Sunscreen and sunglasses are included in the personal care budget (see Chapter 11).

¹⁰ Target Australia P/L (1997), *Sales and Marketing Information Package*.

of this, another store (Kmart) has been used to identify and price some of the clothing and footwear items for the older woman.

Determining Price and Quality

For clothing and footwear items, quality like beauty often lies in the eye of the beholder. Quality can be assessed on the basis of price, with expensive items assumed to be of good quality and low priced goods of poorer quality, although this does not always hold true as many popular brands, while highly priced, are of similar quality to a supermarket or retail store 'own brand' which is less expensive.

There are a bewildering array of brand names for many clothing items, particularly in the area of women's apparel. However, in the UK clothing budget, it was found that brand names were 'rarely considered when buying clothes, except in the case of jeans and trainers' (McCabe and Rose, 1992, p. 7).

Using a great variety of clothing and footwear outlets to reflect the two budget standards is highly problematic. To illustrate the difficulties involved, one only has to consider the case of women's sportswear and swimwear (which covers approximately six items in the budgets) where in Sydney alone there are over 200 speciality stores as well as a number of larger department stores that sell these items.

Not only is it therefore impossible to select a small number of stores which represent the relevant clothing and footwear standards, but there is also the problem of selecting the most appropriate or comparable label/brands within the range of stores selected. There is also the problem, discussed in Chapter 2, of making the budget standards less easily replicable if specialist stores are used to construct and price them.

The problem involved in deciding on an appropriate standard of quality in relation to clothing and footwear items has been eased somewhat by using Target as the main retail outlet for pricing purposes. As noted above, apparel is sold under the *Target* brand name, and the store's marketing policy emphasises a number of objectives, including the availability of high quality goods and its competitive pricing policy.

The majority of clothing items for inclusion in both the modest but adequate and low cost budgets were chosen with an eye to their ease of care and cleaning, the quality of construction and maximum wear, especially in relation to the low cost budget. Except for women's and men's suit (and sports) jackets which require dry cleaning, all other clothing items including parkas can be washed in a domestic washing machine.

The use of natural fibres, such as pure cotton and wool, for all outerwear clothing items might have been a desirable objective but was clearly problematic not only on cost grounds (these garments tend to be relatively expensive) but also due to the amount of time (in terms of increased ironing) and money (for dry cleaning) required to maintain and clean such fabrics. However, for the sake of comfort and health most underwear items and socks, where a selection was available, are either pure cotton or a blend of cotton and another fibre.

For most outerwear items, selection was based on synthetic or blended fabrics, such as polyester and cotton, as these garments are predominantly easy care, wash and wear, less expensive to purchase and more readily available. Some of the selected knitwear items for adults are predominantly acrylic. As this fibre does not last as long as pure cotton or wool, the

lifetimes of the acrylic-based items have been assumed to be somewhat shorter than those of products made of a natural fibre.

One way of selling smaller personal items such as underwear, socks, stockings and handkerchiefs is to package them in packs of either two or three at a time, so reducing their overall cost as a saving to customers. This is a common selling practice at Target and the sales assistants noted it was a popular buying method for customers.

The cost of these 'packaged' goods, where appropriate, forms the basis of costs as against using the single item price, for smaller personal items at both budget standards for individual men, women and children. For example a pack of three pairs of sports socks suitable for adults, costs \$7.50 while a single pair of similar quality socks costs \$3.50. The cost of socks (in this instance where multiples of three apply) in the budgets has been based on a price of \$2.50 per pair.

Assistance with Pricing

An approach was made by the BSU team to the Head Office of Target for assistance with the pricing of basic clothing and footwear items and for information on 'leading lines' or 'best sellers'. Unfortunately, due to a lack of staff resources, Target management were unable to provide the required assistance, although cooperation was received from staff at a local Target store (Eastgardens, in Pagewood) with identifying the most popular or 'best selling' lines for a number of the clothing and footwear items for men, women and children.

Where there was no obvious leading brand or line, a price that was close to the middle of a range of prices for a specific item was chosen for inclusion in the modest but adequate budget, while the lowest price in the range was used to construct the low cost budgets.

Given the specific nature (garment type, style, fabric and the age-related factor) of selected items, the price range was often small and for a considerable number of items it was simply the difference in two prices—the highest and the lowest.

Seasonality Factors

As stated earlier, February 1997 was chosen as the period for pricing all the BSU budgets. This caused some problems for the clothing and footwear budget, as many summer lines were sold out or extremely limited by then, while some winter stock had not yet arrived in the store.

Nonetheless, the range of items included in the budgets was extensive enough to cover most of the items required over the course of an entire year for the budgets for each of the eight individuals. For clothing and footwear, it is difficult to think of a single time to price the budget that can avoid these seasonality problems.

Whether the peak of summer or winter is chosen, the other season's clothing tends to be limited or unavailable and thus very difficult to price. If late Summer or Winter are chosen, most popular lines are sold out and new stock is arriving on an on-going basis. Also, when selecting from a new season's range it is difficult to judge whether the items selected will be 'popular' or 'best sellers' or not; what sold well in one season does not always do well the next.

There is no known pattern to the purchase of clothing or footwear for household members, with households preparing at varying times of the year for holidays, school terms, school camps and other special occasions, or replacing worn, torn or outgrown items, though it would

not be uncommon in the case of children for school uniform items to be purchased in the months immediately preceding the winter and summer terms.

This suspected random purchasing of clothing and footwear somewhat eases the concern over the implications of seasonality for actual prices, as unlike food (much of which has to be purchased on a weekly or fortnightly basis) clothing and footwear items are bought at less regular intervals and not always in, or for, the current season.

Additionally, Sydney also has the advantage of a mild temperature climate for most of the year which means that the majority of clothing or footwear items can be worn all year round by most individuals and seasonality for many major items thus becomes non-problematic in this regard.

However, there may well have been some price differences for clothing and footwear items had BSU costing occurred at another time of the year besides February for one or other of the seasons.

To address the implication of seasonality for actual prices (pricing various items at distinctly different periods in the year) and also to acknowledge the periods when goods are on sale (e.g. at the end of summer and winter and in the post-Christmas period), a five per cent reduction in the cost of the entire clothing and footwear budgets has been made to reflect the likelihood of people taking advantage of lower prices (though this may not necessarily always be the case) through judicious timing of their clothing and footwear purchases.

While it may have been desirable to price at another time to reflect the seasonal variation, time constraints within the project prevented this task from being undertaken.

Pricing School Uniforms

The public education system predominates in NSW, with 75 per cent of all students attending government schools (Saunders, 1994). Most government schools require students from infants through to Year 12 to wear a school uniform, although clothing pools are available at most schools to allow parents to purchase second hand uniforms in reasonably good condition.

The cost of second hand items is not fixed and depends on the condition of the goods offered for sale. Not surprisingly, the supply of second hand items is never constant nor is there a full range of items available at any one time and it would seem unrealistic to rely on this source as a means of determining the cost of school uniforms.

In addition, the use of these clothing pools, as pointed out by several school principals, varies enormously from school to school. For these reasons, no account for the use of these clothing pools has been reflected in the BSU clothing budgets, although information provided by the school principals indicates that significant savings in uniforms can be made.

The difficulties in meeting the costs of school uniforms, especially those incurred by secondary school students, has been highlighted in recent surveys of low income families by the Brotherhood of St. Laurence (1996) and the Smith Family (Taylor, 1997). One of the BSU focus groups consisting of parents also commented on this problem, with one participant noting that: 'Parents had found the transition from primary to high school to be particularly costly and were often obliged to seek help from grandparents to buy school uniforms' (see Chapter 13).

A basic range of schoolwear for boys in varying colour ranges (applicable to schools in the Hurstville area) can be purchased through any number of retail stores, except in the case of items where a school badge or logo is embroidered or printed onto the fabric of jackets, tops, caps or jumpers. Such items, specific to an individual school, vary in cost and are usually purchased through a designated local retail outlet or directly through the school.

For the budget for the 10- and 14-year-old boys, only a basic range of boys' schoolwear including shirts, shorts, long pants, sweatshirt, socks and shoes, has been priced. Again, the retail store Target has been used to cost these items, as they are modestly priced and are applicable throughout Australia.

Pricing school uniforms for girls is more complicated than for boys. The design, colour and fabric of a girl's school uniform is quite specific to each school and is usually required to be worn for the summer terms only. In most instances, for young girls and boys (ages five to seven) track suits are worn as a winter uniform.

The price for a school frock (pinafore) and school track suit (with printed emblem) for the six-year-old girl was determined by averaging the cost of such uniforms using information provided by the eight primary and infants schools in and around the Hurstville LGA.

As well as uniforms, most schools require children to have a sports outfit which usually consists of a pair of shorts (boys) and skirts (girls), a t-shirt (or polo shirt) of a particular colour, joggers or sandshoes and sports socks. An allocation covering the purchase of these items has been included in each child's wardrobe.¹¹

Pricing Men's Suits

Fashion trends in the 1990s for men, women and children is geared towards 'mix and match' tops and bottoms. Men's suits are similarly arranged in Target so that either the jacket or trousers can be purchased separately, allowing for the selection of the most 'appropriate' fit in either garment. This approach also allows for the purchase of a second pair of trousers which extends the life of the 'suit', as jackets are often discarded at work or in less formal situations in the warmer geographical locations in Australia.

At the time of pricing the clothing budget, only one style of suit was available in Target. As suits are a major clothing item for men the 'reasonability' of the cost of the Target suit was checked against a range of other modestly priced suits at another popular men's retail store (Lowes). The Target suit was found to be at the lower range of prices for comparable men's suits and this garment was thus allocated for the 40- and 70-year-old men at both the low cost and modest but adequate standards.¹²

Pricing Children's Clothing

When putting the budgets together, it is difficult to ignore current fashion, especially in women's and children's wear. Children's wear often 'mimics' what is popular for young men and women. For example, 'mix and match' tops and leggings are very popular for young girls

Equipment for specific sports and recreation activities outside school has been included in the leisure budget (see Chapter 10).

¹² The option not to provide males at the low cost standard with a suit was considered, but rejected on the grounds that the alternative of a suitable pair of trousers and jacket for the occasions when such dress is appropriate was found to be more expensive than the suit itself.

and the range is extensive. Other clothing items such as more traditional frocks and blouses are available, but in quite small numbers so that for both the modest but adequate and low cost budgets, prices were set at the same level for a number of items.

6.4 Other Clothing Needs

The remaining clothing and footwear items included in the budgets vary according to the age, sex and lifestyle of each individual. The assumptions made about specific needs and differing life spans for some items are discussed below under the respective individuals headings.

Clothing Needs of Adults: The Impact of Labour Force Status

The number, range and quality of clothing and footwear items for adults varies according to their labour force status. Little information is available on the costs of work, especially in relation to the clothing and footwear needs or requirements of adult workers. Relating clothing and footwear needs to employment status is also made difficult by the fact that the type of occupation and industry where one is employed and the position held in it determines the style, range, quantity and quality clothing and footwear items required.¹³

For the purpose of developing the BSU budgets, the clothing requirements for adults in the labour force were based on the assumption that they occupy jobs where 'good' street clothes, which most people own, can be worn. Based on the Melbourne surveys of 30- to 45-year-old women, in and out of the labour market (described earlier) it is evident that there are some slight differences in the range of clothing and footwear items that the two groups have and these differences are reflected in the budgets for the 35-year-old woman.

Similarly, the development of the 70-year-old women's clothing and footwear budget took account of differences between younger and older women in their choice of items.

To further assist in determining the costs of work for both men and women, a simple scheme was developed to indicate the differences between those employed, unemployed and not in the labour force in regard to the cost of clothing and footwear. Table 6.3 indicates the labour force status for both men and women that are assumed at each of the two standards in the 12 basic BSU household types.

It is not unreasonable to assume that for many unemployed adults (other than those unemployed for a short time) there will be less opportunity for additions to, or replacements of wardrobes, so that the existing stock of clothing and footwear will be required to last longer than might occur if these people were in employment. While this situation might also apply to those not in the labour force, this group may have less need of some specific items than is considered necessary for employed persons—particularly in the case of people who have retired.

In order to differentiate between the costs of clothing and footwear items relative to labour force status, it was decided to vary the lifetimes of 'work-type' items while holding costs constant as costs were already moderate.

With over 1.079 occupations covering all jobs in the Australian labour market (ABS, 1990) pricing different wardrobes required by industry and occupation for males and females is beyond the scope of this project.

Table 6.3: Assumed Labour Force Status Combinations of Men and Women

Modest but Adequate		Low Cost	
Men	Women	Men	Women
Employed full-time	Employed full-time	Employed full-time	Unemployed
	Employed part-time	Unemployed	Not in the labour force
	Not in the labour force		

In particular, it was assumed that the shortest life span for 'work' clothes should be attributed to those who are employed, as personal appearance can be all important in many fields of employment and clothing and footwear needs to be renewed on a fairly constant basis to maintain appearances.

In the case of individuals who are unemployed, it was assumed that they need suitable clothing and footwear items to engage in job search activity, undertake interviews and accept work if it is offered, so that their wardrobes are not dissimilar to those of individuals in paid work.

For those individuals not in the labour force, it was assumed that their wardrobes are a mixture of casual and more formal wear, but with a greater emphasis on the use of casual wear reflecting a different lifestyle from those engaged in paid work or actively seeking work.

In light of these considerations, the clothing and footwear budgets assign the shortest life spans to items owned by men and women in full- and part-time employment. Lifetimes were generally increased for unemployed adults by one year for all items of 'outerwear' that may be regarded as appropriate for wearing to work.¹⁴

For those adults who are not in the labour force, the lifetimes of employment-related clothing items were increased by two years, on the grounds that these people do not have to wear these particular items as regularly as employed people.

As a reflection of the reality of the different lifestyles of those not in employment, some casual outerwear items in their wardrobe (e.g. jeans, t-shirts, shorts, track pants and tops) have had their lifetimes halved to reflect their increased use. Finally, in determining wardrobes for adults, no account has been taken of how changes in an individual's weight and height over time may affect the assumed life span of each clothing and footwear item.

Children's Clothing Needs

As any parent knows, children quickly outgrow their clothing and footwear. Clothing manufacturers recommend suitable sizes for different age groups (using either weight or height measurements) by placing information on labels on the clothes or on packaging. Where, for example, a dress to be purchased for a three-year-old is marked as appropriate for a child aged

¹⁴ Unlike outerwear, underwear needs to be changed daily and washed just as frequently regardless of labour force status so that the lifetimes of these items were not increased, though the number of pairs of stockings was reduced for women either unemployed or not in the labour force. Garments regarded as 'suitable for employment' are shown in italicised bold type in the detailed clothing and footwear budget for the 35-year-old woman shown in Appendix 6.C.

three to four, it can reasonably be assumed that most children will have outgrown this garment by the age of five.

Such information is useful in helping to determine the lifetime of such garments. For this reason, anticipated lifetimes of items have been calculated using the 'normal' range of physical growth of weight and height from ages three to 10 (which covers all of the younger children included in the BSU household types).

A maximum of two years has been allocated for items where a slightly larger size could be purchased to accommodate growth—for example, in the case of expensive items such as parkas, jumpers and dresses for young boys and girls and also for items either of a cotton knit fabric or elastic with a degree of 'give', or with elasticised waists. One-year life spans have been allocated for most other items of children's clothing.

Adolescents' Clothing Needs

During adolescence (13 to 18 years of age), there is a marked increase for both boys and girls in weight and height which is known as the adolescent growth spurt (NHMRC, 1995, p. 33). This 'growth spurt' for boys (occurring around ages 12 to 14) when they can gain as much as 20 cm in height and 20 kg in weight (NHMRC, 1995, p.33) necessitates a shorter life span for their clothing and footwear at that time.

A selection of adult-size clothes for the 14-year-old boy was chosen to accommodate this growth spurt. An additional factor in choosing a range of young men's clothing is that 14-year-old boys are at the upper range of boys clothing (10 years and up) where the range and styles of items are limited and where patterns and designs are more suited to younger boys than to teenagers.

A number of the parents in the BSU focus groups were of the opinion that outside of school, boys in this age group generally need quite basic wardrobes, with favourite outfits being jeans or board shorts with surfing label t-shirts. As a result, and in light of the existence of the adolescent growth spurt, a minimalist wardrobe was considered acceptable by focus group parents for teenage boys in this age group.

Older Women's Clothing Needs

As noted earlier, there is a limited range of garments such as dresses, skirts, blouses and knitwear suitable for a 70-year-old woman available in the retail store Target. For some of these items, use has been made of another major retail store (Kmart), which is a popular retail store similar in its pricing policy to Target but with less emphasis on clothing and footwear compared to other general merchandise.

A suitable range of appropriately comfortable, loose fitting but stylish garments was found and priced at Kmart for the 70-year-old woman. Warmth and protection from chills are also important factors for older people, and Kmart provides a good range of lightweight cardigans and jumpers in their summer range. Good quality, everyday and walking shoes were selected for the 70-year-old woman, as it was felt appropriate to provide maximum support and comfort for the somewhat less agile persons in this age category.¹⁵

¹⁵

The older woman's shoes are assumed to be of better quality (Dr Scholls) and were priced at Target.

For many items, longer life spans than those assigned to the clothing items of the 35-year-old woman were allocated to the older woman to reflect her reduced level of physical activity and consequently less frequent laundering of clothing.

This is consistent with the approach used in the UK, where the Family Budget Unit found that:

'The life of a pensioner's clothing is in general, longer than for other adults, for example, from six to 10 years for a winter coat, at least five years for a special occasion outfit and four years for a summer dress...warm dressing gowns are given a life span of eight to 10 years.'

(Parker, 1995, p. 27)

Pricing and lifetimes (based on those developed in the UK budgets for a 70-year-old women) were assumed to be similar at both modest but adequate and low cost standards in the BSU clothing and footwear budgets for the older woman, though for such items as winter outerwear, nightwear and accessories, a price difference was introduced where a sufficient range of suitable items allowed this.

Older Men's Clothing Needs

It was assumed that the clothing items worn by adult men of all ages are somewhat similar, with most variation occurring with colours and patterns rather than with the style of the articles themselves. This made it possible to select similar basic clothing and footwear items for both the 40- and 70-year-old males within Target.

However, as noted before, the range of clothing and footwear available in Target suitable for older people is quite limited compared to other age groups, and for this reason it was not always practical to distinguish between the modest but adequate and low cost budgets, though a price difference was again introduced where a sufficient range of suitable items allowed this.

The factors important in choosing the older woman's wardrobe in regard to comfort and warmth in clothing (extra knitted wear) and support and quality in footwear and clothing were also applied to the selection of the older man's wardrobe.

Parker's UK study (1995) of modest but adequate budgets for four pensioner households including a 68-year-old man has been used to assist in determining the lifetimes of apparel for the 70-year-old Australian man. For both the older woman's and the older man's clothing and footwear budgets, the UK lifetimes are illuminating, but they were used with a degree of caution owing to Australia's quite different seasonal climate of warmer and longer summers and shorter, milder winters compared to those in the UK.

In the clothing and footwear surveys conducted for the BSU, there are no data on the ownership of different garments by older males, so the quantities for the 70-year-old man were based on data for Australian males aged 25 to 44, as it was considered that these are likely to better reflect Australian conditions than the UK clothing and footwear profile for a 68-year-old male.

A downward adjustment was made to the number of business shirts and pairs of 'good' shoes to reflect the older male's retired lifestyle and the lifetimes of most garments are, as for the older female, assumed to be substantially longer than for younger males in employment.

Accessories: Bags, Wallets and Umbrellas

Included in the 'accessories' section of the clothing and footwear budget for each individual is an allocation for bags, wallets and umbrellas. All women have been provided with a wallet (purse), one handbag and a casual bag suitable for holding items for a day's outing. A wallet and a back pack are included in the men's budgets and all the children's clothing budgets include a wallet (with the exception of that for the three-year-old girl) and a back pack.

All adults and the three- and six-year-old girls have an umbrella included in their budgets.¹⁶ Large bags (suitcases and duffel bags) suitable for holidays and periods away from home for all members of households are included in the household goods and services budget (see Chapter 7).

Sewing Equipment, Dry Cleaning and Clothing Repairs

All households with children at the modest but adequate standard have been allocated a sewing machine as part of the household goods and services budget in order to allow them, from time-to-time, to make basic household items and soft goods or to alter and repair ready-made clothes (particularly children's), curtains, cushions, and so on.¹⁷

The household goods and services budget also includes (for all households at both standards) a 'sewing box' containing cottons, needles, scissors, buttons and pins for use in both hand repairs and, for households with children at the modest but adequate standard, a range of extra needles for use with the sewing machine.

An allowance has also been made in the individual household budgets for dry cleaning costs and shoe repairs, details of which are presented in Appendix 6.B. Laundry costs, associated with the ownership of a washing machine and sufficient quantities of washing products are also included as part of the household goods and services budget.

All other repairs have been assumed to be done by hand or by commercial concerns, such as dry cleaners.

6.5 Summary Clothing and Footwear Budgets

An overall budget has been determined for each of the 12 basic BSU household types by combining the clothing and footwear needs of the eight individuals within the differing household types using the methods described above.

No allowance has been made for any economies of scale in determining this budget, as it has been assumed that there is little sharing of clothes between children of varying genders and age (though there may be some 'passing down' of items of reasonable quality and appearance especially between the younger children).¹⁸

¹⁶ No allowance has been made for an umbrella for the 10- and 14-year-old boys, because boys of this age tend not to use them.

¹⁷ The inclusion of a sewing machine in the household goods and services budget is justified on the basis of the 50 per cent ownership rule described in Chapter 2.

¹⁸ It was noted by the authors of the UK clothing budget that 'families with two children of the same sex but different ages often buy better quality clothes so that they last long enough for both children to wear' (McCabe and Rose. 1992. p. 7).

It was also decided to include an allowance for cost savings associated with the purchase of some clothing and footwear items at sale prices (at both the low cost and modest but adequate standards).

This decision was based on the assumption that in practice women, as the main buyers for all members of the household, in most cases, would most likely shop at several different stores in varying locations in order to take advantage of lower prices, specials and sales where possible. From time-to-time, especially towards the end of the financial year and after Christmas, sales are a common feature of most retail stores for most types of clothing and footwear.

Target itself has regular 'Dollar Days' where, for a short period, a number of selected items are sold at reduced prices. The range of discounts can vary between 15 per cent and 40 per cent and is generally applied across the board to all (or virtually all) store items.

While significant savings can be made through purchasing only at sale times, the potential for consumers to benefit from such savings is dependent on the precise nature and time of their clothing and footwear needs and the availability of funds coinciding with sale days. As well, any such saving is likely to be offset to some extent by the 'bad buy' that shoppers make from time-to-time.

In reflecting both the availability of discounts from shopping when sales are on, offset to some extent by the wastage factor associated with the occasional 'bad buy' a reduction of five per cent has been applied across the board to the total clothing and footwear budgets at both standards.

The resulting summary clothing and footwear budgets (after incorporation of the five per cent price discount on all items) are presented in Table 6.4, for each of the 46 detailed BSU households and for each individual within each household.

The complexity of the individual clothing and footwear budgets that underlie the estimates shown in Table 6.4, are illustrated in Appendix 6.C which presents the detailed budget for the employed 35-year-old woman at the modest but adequate standard.

Appendix 6.C lists each separate clothing or footwear item, shows the relevant Household Expenditure Survey (HES) single-digit commodity code, describes each item, its fibre content, the retail outlet at which it was priced, the unit price, the quantity of each item, its assumed lifetime and its annual and weekly contribution to the clothing and footwear budget.¹⁹

The information included in Appendix 6.C provides an indication of the magnitude and complexity of the task involved in constructing the BSU clothing and footwear budgets for all individuals at the modest but adequate and low cost standards.

This information shows not only what the budgets of each individual contain, but also the range of information needed to construct the overall budget and the various stages in its construction. It also serves to highlight the fact that it is possible to vary the assumptions that are built into the budgets as they currently stand, and to assess what impact this has on the final results.

¹⁹

The annual cost of the total clothing and footwear budget for each household is estimated and used to help determine the required level of home contents insurance included as part of the housing budget (see Chapter 3).

Table 6.4: Summary Clothing and Footwear Budgets for Households and Individuals

Code	Long Title	Work-force	Female	Male	Girl 3	Girl 6	Boy 10	Boy 14	TOTAL
H1a	Single female—age 35, private renter, MBA	FT	23.97						23.97
H1b	Single female—age 35, purchaser, MBA	FT	23.97						23.97
H1c	Single female—age 35, private renter, LC	Un	18.08						18.08
H2a	Couple—male age 40, female age 35, purchaser, MBA	FT FT	23.97	18.23					42.20
H2b	Couple—male age 40, female age 35, private renter, MBA	FT FT	23.97	18.23					42.20
H2c	Couple—male age 40, female age 35, private renter, LC	Un Un	18.08	13.71					31.80
H3a	Couple—male age 40, female age 35, girl age 6, boy age 14, Purchaser, MBA	FT FT	23.97	18.23		13.79		15.01	70.99
H3b	Couple—male age 40, female age 35, girl age 6, boy age 14, private renter, MBA	FT FT	23.97	18.23		13.79		15.01	70.99
H3c	Couple—male age 40, female age 35, girl age 6, boy age 14, private renter, LC	Un NILF	14.00	13.71		12.70		14.31	54.72
H4a	Sole parent female—age 35, girl age 6, purchaser, MBA	FT	23.97			13.79			37.75
H4b	Sole parent female—age 35, girl age 6, private renter, MBA	FT	23.97			13.79			37.75
H4c	Sole parent female—age 35, girl age 6, private renter, LC	NILF	14.00			12.70			26.70
H4d	Sole parent female—age 35, girl age 6, public renter, LC	NILF	14.00			12.70			26.70
H5a	Aged single female—age 70, owner, MBA	NILF	14.27						14.27
H5b	Aged single female—age 70, owner, LC	NILF	13.03						13.03
H5c	Aged single female—age 70, public renter, LC	NILF	13.03						13.03
H6a	Aged couple—both age 70, owner, MBA	NILF NILF	14.27	10.34					24.61
H6b	Aged couple—both age 70, owner, LC	NILF NILF	13.03	8.90					21.93
H6c	Aged couple—both age 70, public renter, LC	NILF NILF	13.03	8.90					21.93
H7a	Couple—male age 40 (FT), female age 35 (FT), girl 6, purchaser, MBA	FT FT	23.97	18.23		13.79			55.98
H7b	Couple—male age 40 (FT), female age 35 (FT), girl 6, private renter, MBA	FT FT	23.97	18.23		13.79			55.98
H7c	Couple—male age 40 (Un), female age 35 (NILF), girl 6, private renter, LC	Un NILF	14.00	13.71		12.70			40.41
H7d	Couple—male age 40 (Un), female age 35 (Un), girl 6, private renter, LC	Un Un	18.08	13.71		12.70			44.50
H7e	Couple—male age 40 (Un), female age 35 (Un), girl 6, public renter, LC	Un Un	18.08	13.71		12.70			44.50
H7f	Couple—male age 40 (FT), female age 35 (N), girl 6, purchaser, MBA	FT NILF	17.91	18.23		13.79			49.92

Table 6.4: Summary Clothing and Footwear Budgets for Households and Individuals (Continued)

Code	Long Title	Workforce	Female	Male	Girl 3	Girl 6	Boy 10	Boy 14	TOTAL
H7g	Couple—male age 40 (FT), female age 35 (N), girl 6, private renter, MBA	FT NILF	17.91	18.23		13.79			49.92
H7h	Couple—male age 40 (FT), female age 35 (NILF), girl 6, private renter. LC	FT NILF	14.00	14.45		12.70			41.15
H7i	Couple — male age 40 (FT), female age 35 (Un), girl 6, private renter. LC	FT Un	18.08	14.45		12.70			45.24
H7j	Couple — male age 40 (FT), female age 35 (PT), girl 6, purchaser, MBA	FT PT	23.97	18.23		13.79			55.98
H7k	Couple—male age 40 (FT), female age 35 (PT), girl 6, private renter, MBA	FT PT	23.97	18.23		13.79			55.98
H8a	Couple—male age 40, female age 35, boy 14, purchaser, MBA	FT FT	23.97	18.23				15.01	57.20
H8b	Couple—male age 40, female age 35, boy 14, private renter, MBA	FT FT	23.97	18.23				15.01	57.20
H8c	Couple—male age 40, female age 35, boy 14, private renter LC	Un, NILF	14.00	13.71				14.31	42.02
H9a	Couple—male age 40, female age 35, girl 3, purchaser, MBA	FT FT	23.97	18.23	12.13				54.33
H9b	Couple—male age 40, female age 35, girl 3, private renter, MBA	FT FT	23.97	18.23	12.13				54.33
H9c	Couple — male age 40, female age 35, girl 3, private renter, LC	Un NILF	14.00	13.71	10.53				38.24
H10a	Couple—male age 40, female age 35, girls 3 and 6, boy 14, purchaser, MBA	FT FT	23.97	18.23	12.13	13.79		15.01	83.12
H10b	Couple — male age 40, female age 35, girls 3 and 6, boy 14, private renter, MBA	FT FT	23.97	18.23	12.13	13.79		15.01	83.12
H10c	Couple — male 40, female 35, girls 3 and 6, boy 14, private renter. LC	Un NILF	14.00	13.71	10.53	12.70		14.31	65.25
H11a	Couple—male age 40, female age 35, girls 3 and 6, boys 10 and 14, purchaser, MBA	FT FT	23.97	18.23	12.13	13.79	14.08	15.01	97.20
H11b	Couple—male age 40, female age 35, girls 3 and 6, boys 10 and 14, private renter, MBA	FT FT	23.97	18.23	12.13	13.79	14.08	15.01	97.20
H11c	Couple — male age 40, female age 35, girls 3 and 6, boys 10 and 14. private renter, LC	Un NILF	14.00	13.71	10.53	12.70	12.50	14.31	77.75
H12a	Sole parent female — age 35, girl age 6, boy 10, purchaser, MBA	FT	23.97			13.79	14.08		51.83
H12b	Sole parent female—age 35, girl age 6, boy 10, private renter, MBA	FT	23.97			13.79	14.08		51.83
H12c	Sole parent female—age 35, girl age 6, boy 10, private renter, LC	NILF	14.00			12.70	12.50		39.20
H12d	Sole parent female—age 35, girl age 6, boy 10, public renter, LC	NILF	14.00			12.70	12.50		39.20

Key: MBA = Modest but Adequate; LC = Low Cost, M=Male, F=Female, G=Girl, B=Boy, FT=Full-time, PT=Part-time, Un=Unemployed, NILF=Not in the Labour Force

APPENDIX 6.A: Summary Results from Two Small-Scale Surveys of Clothing Wardrobes

Table 6.A.1: Summary of Results from the Melbourne Survey of Women Aged 35 and 70 Years

<u>Number of Respondents</u>	<u>Age 35, working^(a)</u>	<u>Age 35, not working^(b)</u>	<u>Age 70, retired^(c)</u>
Median number of items			
dresses—winter	0	1	3
dresses—summer	3	3	6
suits—summer/winter	3	2	2
jacket—summer	1	1	2
jacket/parka — winter ^(d)	2	1	1
coat ^(d)	1	1	1
slacks/trousers—summer/winter	4	4	4
jeans	2	3	0
skirts—summer	2	3	3
skirts—winter	3	2	0
shirts/blouses, long sleeves	4	4	4
shirts/blouses, short sleeves	3	3	4
vests/waistcoats	1	1	0
jumpers/cardigans	5	5	8
short or sleeveless tops	4	4	2
long sleeved tops	4	4	2
shorts	3	3	1
swimmers	1	1	1
track tops/sweatshirts	3	2	1
track pants	3	2	2
rain coat/jacket	1	1	1
briefs/underpants summer/winter	10	10	10
singlets/spencers summer/winter	2	2	6
bras	6	5	5
petticoats/slips	1	1	5
stockings/panty hose	5	5	7
tights/leggings	3	2	0
leotards/bodysuits	0	0	0
socks (pairs)	8	8	5
belts	2	2	2
handkerchiefs	0	2	10
gloves/mittens (pairs)	1	1	1
scarves	2	1	1
hats/other headgear	1	1	1
winter night wear	2	3	4
summer night wear	2	3	4
dressing gown/robe	1	1	2
shoes/boots (pairs)	6	4	5
sandshoes/joggers (pairs)	2	1	1
sandals/thongs (pairs)	2	1	1
slippers/ugg boots (pairs)	1	1	1

Notes: (a) Includes women aged 25 to 44.

(b) The sample of women not working comprises 23 women who were at home full-time, nine who were students and seven who were unemployed.

(c) Includes women aged 55 and over.

(d) In consideration of Sydney's milder climate (overall) compared to Melbourne, only one parka (and no overcoats) were allocated to each women's wardrobe.

Table 6.A.2: Summary Results from the Melbourne Survey of Men Aged 40

	Age 40, <u>working</u> ^(a)	Age 70, retired ^(b)
Number of Respondents	42	
		Median number of items
suits	2	2
sports coat/blazer — summer	2	1
jacket/parka—winter ^(c)	2	1
coat ^(c)	1	0
trousers—summer	3	3
trousers/cords—winter	2	2
jeans	2	2
jumpers/cardigans	4	3
shirts, long sleeves	9	6
shirts short sleeves	4	2
<i>winter long sleeve shirt^(d)</i>	0	1
t-shirts/tank tops — summer	7	5
long sleeved tops	2	5
<i>winter knitted vest^(d)</i>	0	1
<i>summer casual jacket^(d)</i>	0	1
shorts, including board shorts	4	2
swimming trunks	1	1
sweatshirts/track tops	3	2
track pants	3	3
rain coat/jacket	1	1
underwear/briefs summer/winter	10	10
underwear/singlets summer/winter	0	7
socks (pairs)	12	12
ties	7	7
belts	3	3
handkerchiefs	9	9
gloves (pairs)	0	0
hats/other headgear	2	2
winter night wear	1	1
summer night wear	1	1
dressing gown/robe	1	1
shoes/boots (pairs)	5	3
sandshoes/joggers (pairs)	2	2
sandals/thongs (pairs)	1	1
slippers/ugh boots (pairs)	1	1

Notes: (a) Includes men aged 25 to 44.

(b) No information is available on the items in the 70-year-old's wardrobe. Use was made of the quantities allocated to a 40-year-old with some adjustments made to the types of items to reflect changed lifestyles in older age.

(c) In consideration of Sydney's milder climate (overall) compared to Melbourne only one parka (and no overcoats) were allocated to each man's wardrobe.

(d) Items shown in italics are included in the wardrobe of the 70-year-old only.

Table 6.A.3: Results from the Smith Family Survey of the Clothing and Footwear Needs of Children Aged 3, 6, 10, and 14 Years

	3-year-old girl	6-year-old girl	10-year-old boy	14-year-old boy
Number of Respondents	12	23	10	103
Median number of items				
belts	0	1	1	1
cords/winter slacks	0	0	0	0
dresses	6	4	0	0
dressing gowns	1	1	1	0
gum boots	1	0	0	0
hats	2	2	1	1
jeans	1	1	1	1
joggers	1	1	2	1
jumpers/cardigans	4	4	2	2
leggings	3	2	0	0
long sleeved tops	3	1	1	0
parkas	1	1	1	1
raincoats	1	1	1	0
school blazers	0	0	0	0
school dress/uniform	0	1	0	0
school jumper/sweater	0	2	2	1
school short pants	0	-	2	2
school long pants	-	-	1	1
school shirts/blouses (L/S)	0	1	0	0
school shirts/blouses (S/S)	0	3	3	2
sports uniform	-	-	1	1
school skirts	0	1	0	0
school track suits	0	0	1	0
shirts/blouses (L/S)	2	2	0	1
shirts/blouses (S/S)	0	3	3	2
school tie	-	0	0	0
shoes	3	2	2	1
shorts	5	4	5	4
singlets	5	2	2	0
skirts	2	2	0	0
slippers	1	1	0	0
summer night wear	4	3	2	2
socks	6	6	7	7
sweat shirt/track tops	3	3	2	2
swimmers	1	1	1	1
thongs	1	1	0	1
tights	0	1	0	0
track pants	3	2	3	2
slacks/trousers (summer)	0	1	0	1
t-shirts	3	3	4	2
underpants	10	8	6	7
winter night wear	3	2	2	1

Key: L/S = long sleeve, S/S = short sleeve

APPENDIX 6.B: Shoe Repair and Dry Cleaning Costs for the Four Adults in the 12 Basic Household Types^(a)

Description	Frequency Per Year	Annual Cost	Weekly Cost
		\$	\$
35-year-old female (employed)	2 heel replacements 4 dry cleans of a suit jacket	23.90 31.20	0.46 0.60
40-year-old male (employed)	2 heel replacements 4 dry cleans of a suit/sports jacket	27.90 31.20	0.54 0.60
40-year-old (unemployed)	2 heel replacements 3 dry cleans of a suit/sports jacket	27.90 23.40	0.54 0.45
70-year-old female	2 heel replacements	23.90	0.46
70-year-old male	2 heel replacements 2 dry cleans of a suit/sports jacket	27.90 15.60	0.54 0.30

Note: (a) Shoe and dry cleaning costs were priced at Eastgardens Shopping Centre in Pagewood as follows: men's heel replacements, \$13.95; women's heel replacement, \$11.95; man's and woman's suit jacket dry clean, \$7.80. No dry cleaning or shoe repairs costs were allocated for either the three-, six-, 10- or 14-year-old children, as all of their clothes were assumed to be washable and it is also assumed that their shoes are outgrown before repairs are necessary.

APPENDIX 6.C: Detailed Clothing and Footwear Budgets for the 35-Year-Old Woman, Differentiated by Labour Force Status at the Modest but Adequate Level

A: Labour Force Status: Employed

Main clothing items	HES Descriptions	Fibre content	Retail outlet	Price	Quantity	Life times	Yearly cost	Weekly cost
parka	6 3/4 length, zippered front, pockets lining, hood.	polyester cotton cotton lining	Target	\$ 69.00	1	4	\$ 17.30	\$ 0.30
							0.00	0.00
rain jacket	6 3/4 length, hood. pockets. buttoned front	plastic	Target	\$ 12.00	1	6	2.00	0.00
winter slacks, smart jeans	6 fitted waist. pockets, straight leg	polyester denim	Target	\$ 29.00	2	3	19.33	0.37
winter dress (smart)	6 short sleeve, knee length	polyester viscose	Target	\$ 39.00	2	3	26.00	0.50
winter skirt	6 fitted waist, pleated	polyester viscose	Target	\$ 42.00	2	3	28.00	0.54
winter skirt	6 fitted waist, straight	acrylic knit	Target	\$ 39.00	1	3	13.00	0.25
winter jumper, warm	6 long sleeve crew neck	angora blend	Target	\$ 59.00	1	3	19.67	0.38
winter jumper, light	6 long sleeve, short front zip	acrylic	Target	\$ 39.00	1	2	19.50	0.37
winter cardigan	6 crew neck, buttoned front	angora blend	Target	\$ 59.00	1	3	19.67	0.38
skivvy	6 long sleeve roll neck	cotton	Target	\$ 10.00	4	3	13.33	0.26
long sleeve blouse	6 long sleeve, collar. buttoned front	winter weight/ cotton/ poly	Target	\$ 42.00	4	3	56.00	1.07
tracksuit bottoms	6 elasticised waist and hems,	poly/ cotton	Target	\$ 24.00	3	3	24.00	0.46
tracksuit tops	6 sweatshirt style. long sleeve	poly/ cotton	Target	\$ 20.00	3	3	20.00	0.38
smart suit	6 long sleeve, classic style, no collar. long line jacket. straight skirt	polyester /viscose	Target	\$ 135.0	2	4	67.50	1.29
special occasion dress	6 short sleeve, round neck, waisted/belt	viscose	Target	\$ 55.00	1	4	13.75	0.26
long sleeve blouse	6 long sleeve, collar, buttoned front	cotton/ poly	Target	\$ 39.00	4	3	52.00	1.00
smart blouse	6 long sleeve, round neck, padded shoulders	polyester	Target	\$ 39.00	2	4	19.50	0.37
waistcoat/vest	6 patterned front, plain back, 3 buttons	polyester	Target	\$ 39.00	1	5	7.80	0.15
summer jacket	6 lightweight,short sleeve, rever collar	poly/ cotton	Target	\$ 59.00	1	3	19.67	0.38
sundress	6 sleeveless, knee length	cotton/ poly	Target	\$ 39.00	1	4	9.75	0.19
summer dress. casual	6 short sleeve, fitted top, flared skirt	cotton knit	Target	\$ 25.00	1	3	8.33	0.16
summer dress. smart	6 short sleeve, high waist, gathered skirt	cotton	Target	\$ 42.00	1	3	14.00	0.27
summer skirt	6 full, elasticised waist	poly/ cotton	Target	\$ 36.00	1	3	12.00	0.23

APPENDIX 6.C: Detailed Clothing and Footwear Budgets for the 35-Year-Old Woman, Differentiated by Labour Force Status at the Modest but Adequate Level (Continued)

A: Labour Force Status: Employed

Main clothing items	HES	Descriptions	Fibre content	Retail outlet	Price	Quantity	Life times	Yearly cost	Weekly cost
summer skirt	6	straight, unlined, fitted	poly/ viscose	Target	36.00	1	3	12.00	0.23
summer slacks, smart	6	fitted waist, straight leg	poly/ viscose	Target	42.00	1	4	10.50	0.20
summer slacks, casual	6	part fitted/part elasticised waist	polyester	Target	39.00	1	4	9.75	0.19
shorts, smart	6	fitted waist, zippered front, pockets	poly/ viscose	Target	29.00	1	4	7.25	0.14
shorts, casual	6	elasticised waist, pockets	cotton knit	Target	20.00	2	3	13.33	0.26
summer sweater	6	long sleeve, crew neck	acrylic	Target	24.00	1	3	8.00	0.15
summer sweater	6	short sleeve, crew neck	cotton/ acrylic	Target	22.00	1	2	11.00	0.21
summer cardigan	6	v-neck, buttoned front, long sleeve	cotton/ acrylic	Kmart	29.00	1	2	14.50	0.28
summer blouse	6	short sleeve, buttoned front, collar	cotton	Target	39.00	1	4	9.75	0.19
smart summer blouse	6	short sleeve, round neck, padded shoulders	polyester	Target	39.00	2	4	19.50	0.37
t-shirt	6	short sleeve, crew neck	cotton	Target	10.00	2	3	6.67	0.13
tank top	6	sleeveless, ribbed, scoop neck	cotton	Target	16.00	1	3	5.33	0.10
polo t-shirt	6	short sleeve, collar, 3 buttons	cotton	Target	16.00	1	3	5.33	0.10
leggings	6	footless	poly/ cotton/ elastin	Target	25.00	1	2	12.50	0.24
exercise shorts	6	fitted, knee length	lycra	Target	20.00	1	2	10.00	0.19
swim suit	6	one piece	poly/ cotton/ elastin	Target	45.00	1	2	22.50	0.43
UNDERWEAR/NIGHTWEAR									
briefs	6	hipster, lace trim	cotton	Target	5.00	6	2	15.00	0.29
briefs	6	full, plain	cotton	Target	2.50	4	2	5.00	0.10
singlets	6	sleeveless	cotton	Target	6.50	2	1	13.00	0.25
bra	6	medium control	cotton/ elastin	Target	17.00	4	1	68.00	1.30
bra	6	sports style	cotton/ elastin	Target	15.00	2	1	30.00	0.58
waist slip	6	elasticised waist	nylon	Target	9.00	1	2	4.50	0.09
winter nightie	6	long sleeve, 3/4 length, pull-on	poly cotton	Target	29.00	1	2	14.50	0.28
winter pyjamas	6	long sleeves, long legs	cotton	Target	24.00	1	2	12.00	0.23
summer nightie	6	sleeveless, scoop neck, 3/4 length	cotton knit	Target	20.00	1	2	10.00	0.19
summer pyjamas	6	short sleeve top, short leg	cotton knit	Target	29.00	1	2	14.50	0.28
winter dressing gown	6	full length, long sleeve, buttoned through	cotton	Target	29.00	1	6	4.83	0.09

APPENDIX 6.C: Detailed Clothing and Footwear Budgets for the 35-Year-Old Woman, Differentiated by Labour Force Status at the Modest but Adequate Level (Continued)

A: Labour Force Status: Employed

Main clothing items	HES	Descriptions	Fibre content	Retail outlet	Price	Quantity	Life times	Yearly cost	Weekly cost
stockings	6	knee-highs (2 prs)	nylon	Target	2.50	4	1	10.00	0.19
stockings	6	Hilton 'Razza Matazz' pantyhose	nylon/ lycra/ cotton	Target	3.35	25	1	83.75	1.61
tights	6	winter weight, soft	acry/ nylon/ lycra	Target	12.00	2	2	12.00	0.23
socks	6	ankle length	cotton	Target	3.35	6	1	20.10	0.39
sport socks	6	mid shin length. cushioned foot	cotton blend	Target	2.00	6	1	12.00	0.23
ACCESSORIES									
sun hat	6	wide brimmed	straw	Target	12.00	1	5	2.40	0.05
sun hat	6	sun visor	cotton/ poly	Target	5.00	1	2	2.50	0.05
scarf, smart	6	patterned, long. rectangular	poly/silk	Target	10.00	2	5	4.00	0.08
belt, smart	6	narrow width. buckle.	leather	Target	14.00	1	5	2.80	0.05
belt, casual	6	medium width. buckle	leather	Target	17.00	1	5	3.40	0.07
handkerchiefs	6	plain	cotton	Target	0.74	10	2	3.70	0.07
swim goggles	11	Eyeline'	plastic/ rubber	Target	8.00	1	1	8.00	0.15
swim cap	11	pull-on	rubber	Target	5.00	1	1	5.00	0.10
hand bag	13	small	leather	Target	35.00	1	2	17.50	0.34
casual bag	13	medium/large size	canvas or straw	Target	25.00	1	2	12.50	0.24
wallet	13	multi compartments	leather	Target	23.00	1	3	7.67	0.15
umbrella	13	fold up	nylon	Target	10.00	1	3	3.33	0.06
SHOES									
shoes, court	6	'Sandier' low heel. plain.	leather uppers	Mathers	69.00	2	3	46.00	0.88
shoes, court	6	'Hush Puppy' medium heel, plain	leather uppers	Mathers	79.00	2	4	39.50	0.76
sandals	6	'Sandier' low heel. straps	leather uppers	Mathers	65.00	1	2	32.50	0.62
loafers	6	'Diane Ferrari' flat heel, slip-on	leather uppers	Mathers	69.00	1	2	34.50	0.66
joggers/trainers	6	lace-up, raised soles, padded	synthetic	Target	18.00	2	2	18.00	0.35
slippers, winter	6	slip-on, moccasin style	man-made fabric	Target	15.00	1	3	5.00	0.10
								1,257.45	24.12
Sales/specials deduction							less 5%	62.87	1.21
SUB-TOTAL								1,194.58	22.91
shoe repairs	6	heel replacement	resin	East-gardens	11.95	2	1	23.90	0.46
dry cleaning	6	suit jacket	polyester/viscose	East-gardens	7.80	4	1	31.20	0.60
							TOTAL	1,249.68	23.97

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CHAPTER 7: THE HOUSEHOLD GOODS AND SERVICES BUDGET*

7.1 Introduction

The task involved in developing an indicative budget for the household goods and services component of the budget standards research is to allocate appropriate items commonly used in Australian households to each of the household types specified in the research plan. Two questions arise out of this statement of the task at hand:

- which items should be allocated? and
- on what bases are the allocations to be made?

As in relation to other components of the research, budgets have been developed for 12 basic household types at two different levels, low cost and modest but adequate. These differ in the standard of living to which they correspond, as outlined in greater detail in Chapter 2.

Work on the other major budget components demonstrates the complexity of the exercise and illustrates the severe limitations imposed by the absence of the requisite data. These difficulties are all the more challenging in the current context, as will become evident. Furthermore, the household goods and services budget overlaps many of the other budget components, so that it is important to ensure that this does not result in any double counting of needs and the goods and services required to fulfil them.

Thus, for example, the household goods and services budget overlaps the leisure and recreation budget because many household items are used whilst engaged in active and passive leisure pursuits. In addition, the household goods and services budget itself must be consistent with the assumed standards of housing that underlie the housing budget. There are also several overlaps with the clothing and footwear budget described in Chapter 6.

Although the two basic questions posed above appear simple enough, they give rise to two major difficulties:

- there are an enormous number of items about which decisions have to be made before the household goods and services budget can be developed; and
- the scarcity of accessible data on which to base many of these decisions.

These difficulties are an inseparable feature of budget standards research, but they nevertheless have to be overcome.

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In order to be able to function successfully in modern society, households have to possess a great many separate items. Some of these (e.g. basic items of furniture and essential household fittings) can be reasonably readily identified, but it is enormously difficult to specify the precise features of each item that correspond to a particular standard of living. Others (e.g. the contents of an adequate tool-kit that will allow a range of basic household repairs to be undertaken) present formidable problems in even specifying which items to include.

The enormity of the task is illustrated by the fact that what has been included in the household goods and services component of the budget adds up to over 400 items. Allowing for the 12 different basic household types for which budgets have been developed, in conjunction with the assumed variations in labour force status of adults in the household, up to four different forms of housing tenure (private renter; public renter; purchaser; and outright owner) and the two standards of living (low cost and modest but adequate), the total number of combinations being considered amounts to 46 different households—each of which must be allocated the more than 400 items that appear in the household goods and services budget.

The total number of items is thus over 18,000, and even though some of these are repeated across several households, there are still many thousands of separate items that have to be identified, provided with a lifetime and then priced. It follows that hundreds of separate decisions have to be made before the budgets can be compiled. Unfortunately, there appear to be no sources of information which would provide shortcuts through the sheer volume of data.

The most obviously useful data would be surveys which documented what people actually did have in their homes, and there are some surveys which do this, for some household items. The *Household Expenditure Survey* (HES), for example, does this in part, although it records the *flow* of expenditures rather than the *stock* of commodities actually owned.

In addition, the HES data are not detailed enough for current purposes, since the survey records only generic items like tables, beds, or wardrobes, but not the brand names, types, qualities or price ranges, nor the retail outlets where they were bought. Neither does it provide information on the percentages of households which own particular items, yet it is this latter kind of information which is needed if goods and services are to be allocated to households according to generally accepted norms of what is appropriate.

As the purpose of the budget standards research is to provide a monetary measure of living standards, all of the items allocated to each component budget must be priced. And because prices vary across a range within any single item (e.g. beds), decisions about what items to include must take account of a range of brands, types, qualities, quantities, sizes and model numbers actually available.

It is a simple enough matter to decide, for example, that everyone needs a bed to sleep in, a comfortable place to sit in the lounge room and at the dining table, utensils to cook with and eat with. What is difficult, however, is to decide which particular bed, sofa, dining table, cutlery set and so on, to choose from among the plethora of choices abounding in an affluent consumer society.

For budget standard purposes, it must be a *particular* bed, sofa, or dining suite that is able to be identified with sufficient precision to enable it to be priced. If items are to be allocated according to normative standards of what is appropriate (or even merely informed by such external norms), what is needed is information on retail market share leaders, and most popular

brands, price ranges, styles and models. But it is precisely this kind of detailed information which is generally not available.

Although overseas research offers some guidelines on the types of items to include, its usefulness is limited largely because of cultural and other differences. Thus, for example, the retailers utilised in the UK budget standards research (Sainsburys and Marks and Spencer) do not exist in Australia and there is no readily comparable retail chain which has a similar degree of national market penetration.¹

The Furniture Industry Association of Australia referred the BSU researchers to Kester Marketing for statistical information about the Australian furniture industry. However, according to a leading figure at Kester Marketing who was contacted for further information, the statistics they compile for the industry are taken almost entirely from ABS sources.

Yet the ABS data themselves are too general for current purposes, and more detailed information on particular retailers or stores cannot be divulged by ABS for confidentiality reasons. Furthermore, the ABS data on comparative price levels and sales volumes cannot be released because of commercial sensitivities.

There are some sources of information, for example, retailers' price lists and catalogues, and these have been used wherever they were available. This element of the research has also made use of the 'Best Buy' recommendations in *Choice* magazine (Australian Consumers Association, ACA, various years) for guiding its decisions on which specific household appliances to include in the budgets. The main resource, however, has involved 'dragging oneself around shops', to quote Professor Bradshaw (1994).

The household goods and services budget incorporates an extensive number of items, covering indoor and outdoor furniture, floor coverings and their maintenance, blinds and curtains, whitegoods and electrical appliances, household linen and soft furnishings, other furnishings and ornaments, gardening tools and equipment, tableware, cookware and kitchenware, cleaning utensils, households durables and non-durables, as well as school fees and charges, child care fees, and the costs of pets, stationery, telephone and postage.

All of these items have to be priced in developing the budget, and in order to be able to do this, a combination of furniture, furnishing, appliance, variety and hardware stores were approached to assist with pricing and advice on most items. These stores included Freedom Furniture, Ikea, Capt'n Snooze, Kmart, Target, Woolworths, Coles, Retravision, Hurstville Sewing Centre, Mitre 10, BBC, Thrifty Link and Spotlight, as well as the Australian Supermarket Institute.

7.2 Drawing the Distinction Between Low Cost and Modest but Adequate Standards

Initially, it was assumed that drawing the distinction between the low cost and modest but adequate budgets would be achieved in various ways, notably; 'by modifying the modest but adequate budget to reflect lower quality items, longer life spans and cheaper prices consistent with an appropriately frugal lifestyle and budget' (Saunders, 1996, p. 19).

A literature search guided by the key words 'household', 'furniture', 'appliances', 'domestic', 'retailing', plus a reading of the trade journals. *Inside Retailing* and *Furniture Retailing Today*, failed to uncover any systematic and comprehensive information on customer buying patterns, or sales volumes or on the market shares of particular retailers.

This approach was based on a recognition of some of the ways in which people actually do try to manage on a less than adequate income, that is, by a combination of going without, buying cheaper goods, hunting around for 'special offers', relying on loans, using things which have gone beyond any reasonable point of dilapidation, or delaying replacing items which have broken down completely."

There are, however, limits to how far these methods of frugal management of resources can be introduced without compromising what the articulated budget standards are presumed to represent. This was also a dilemma in determining several of the other budgets, and the approaches taken there to differentiate between the modest but adequate and low cost standards have been incorporated here to the extent that this was possible. The precise methods adopted are elaborated on below.

A number of other budgets use different prices to differentiate between the modest but adequate and low cost standards: around the median (or middle) range of costs for modest but adequate and the lowest price for low cost. There was a concern that including cheaper goods (i.e. furniture and electrical products) in the low cost budget—particularly for items with extended lifetimes of 15 to 20 years (more in some cases)—could lead to an undesirable situation where goods would either be unusable or dangerous, when used constantly over such long periods.

All white goods, electrical and hardware items for both standards were therefore chosen to be leading brands or the most popular selling brand, with different lifetimes assigned at the two standards (see the more detailed explanation below).

A number of 'big-ticket' items in the furniture range such as sofas, dining room settings, beds, bedside tables, bookcases and storage units were priced at two separate levels. This was possible because within the stores chosen for pricing, the range of a number of items was extensive and there was a good deal of difference between the bottom and top prices for similar items.

Unlike food products, there is no 'generic brand' of furniture (or other domestic appliances), so in developing the low cost standard a less expensive (often the cheapest) item was chosen and around the middle price was used for pricing the modest but adequate budget.

Sometimes, items at a particular price level were unconventional in some way, for example, in their design or in the material used, in which case another, more standard, item that was slightly dearer or cheaper was chosen. Sometimes, too, it was the cheapest listed item which was included if that item appeared to be appropriate. For example the smaller five piece dining room suite priced at Ikea, when compared to the prices of similar suites elsewhere, was not only the cheapest but was of such good quality and value that it was allocated to households at both standards.

The choice of store for pricing larger furniture items also presented some difficulty. The Australian retail market for furniture is highly fragmented and competitive and includes traditional department stores and specialty retailers. It would have been 'false economy' to price large furniture items at stores such as Kmart, Big W and Target who have, at best, a

There is no provision in the budget standards methodology to take account of the extent to which households survive on resources obtained outside of the regular consumer economy. Neither can the budgets easily include second-hand goods because of the lack of standardisation and the consequent difficulty of replication.

limited range of furniture items and where the type of materials used in their construction would be unlikely to withstand the lifetimes allocated in the budgets—particularly in households with young children.

The final decision to price the 'big ticket' items at Ikea and Freedom Furniture was based on the accessibility of both stores Australia-wide, their extensive range of goods and their reputation as quality retailers. Both retail outlets sell furniture in the medium to low price range, with a large range of self-assembly items. Catalogues make it simple to order by phone and to arrange delivery to many parts of Australia (although freight charges apply to areas outside major town and cities).³

The furniture included in the BSU household goods and services budgets was chosen using both the Ikea and Freedom Furniture catalogues, and after visiting the stores to check the quality, style and comfort of the listed items. As it turned out, many of the items chosen were those sold by Ikea, either because comparable items were slightly cheaper there than at Freedom Furniture, or because they were more appropriate for current purposes.

A thorough check in a number of budget-priced furniture outlets in a major Sydney retail centre indicated that costs were similar to those of Ikea or Freedom Furniture for the furniture items allocated to the low cost budgets where items were roughly comparable in size, finish and material.

This is not to deny that there may be even cheaper (and poorer quality) articles of furniture that could have been costed. However, where larger furniture items appeared not to be suitable or of a standard unable to withstand the constant use over time by larger families, they were not considered.

Furniture as a Fashion Item

It is important to emphasise that in choosing the larger furniture items for living areas and bedrooms, the criteria used was based on sturdy, simple styles unlikely to date over time and suitable to 'go together' as a whole. The main 'fashion component' of the selected items' was in the finish of the product, where predominantly light or clear finishes were chosen. Solid timber (or for a few furniture pieces, particle board with veneer) was the preferred material for furniture and children's bed (bunks) frames, especially at the low cost level, as timber is much easier to repair and re-paint than plastic, alloy or metal finishes.

Another criterion used when selecting individual items was that where possible the item would be suitable for all BSU households, ranging from a 35-year-old single woman, to a 70-year-old couple, to a couple with four children. The type, structure and material were therefore selected on the basis that, regardless of household formation, the chosen items would meet each household's needs and stand up where necessary to the constant wear and tear generated by young children and adolescents. Ikea and Freedom Furniture products both fulfilled these criteria.

Freedom Furniture has a network of 35 stores throughout Australia, is one of the leading quality retailers of furniture and homewares and has an established brand name. Freedom Furniture designs or commissions 90 per cent of its products and virtually all products are sold under the Freedom Furniture brand name. Its total retail sales represent approximately 8.9 per cent of the Australian retail furniture market (Freedom Furniture. 1997). Ikea has seven retail outlets in four States (NSW, Victoria, Queensland and Western Australia) and sells a wide range of furniture, textiles and household items at value-for-money prices (Ikea. 1997).

Consideration was given to allocating 'end lots' of new carpet and second-hand or used furniture to contain the costs of households at the low cost standard. However, there are good reasons why such an approach would be impractical. Firstly, for those living outside major urban areas there is generally only limited access to either 'end lots' of carpets or to a suitable range of second-hand or used furniture. Secondly, as both the availability of every (second-hand or used) household item and the price structure are unknown, there is no possibility for updating these prices over time—a crucial element in the BSU budget standards methodology.

In addition to pricing a large number of items at two standards, it was also possible to build in a degree of frugal management into the low cost budgets by allocating the same items as were incorporated into the modest but adequate budgets, but extending their lifetimes.

This approach to drawing the distinction between the low cost and modest but adequate standards also has the advantage that it reduces the research process considerably, a not insignificant gain given the enormous volume of items in this budget. All items have therefore been assumed to be the same (or very similar) at both standards, with a longer assumed lifetime of use for the low cost standard. This approach has the advantage of making it easier to compare the two budgets, and to reprice them over time.

Assigning Lifetimes

In general, the rule of thumb used for extending the lifetimes of items in the low cost household goods and services budget was to add two years to double-figure lifetimes (e.g. from 10 years to 12 years), and to add one year to single-figure lifetimes (e.g. from five years to six years).

As mentioned above, the lifetimes of many household items included in the low cost budgets are longer than those used in developing the modest but adequate budgets. This approach enables an allowance to be made for items which continue to be used despite their dilapidation and also for the delayed replacement of goods.

At the same time, however, the assumed lifetimes of some items included in the low cost budgets have been reduced, particularly in the case of those items likely to be subject to more wear and tear because of the presence of children in the household, e.g. some items of furniture, appliances and some kitchen utensils.

In the UK budget standards research, where the largest number of children in any household was two, the assumed reduction in lifetimes was two years. However, since the BSU research contains one household with three children and another with four, the assumed lifetimes have been reduced by one year for each child.

In the case of households with children at the low cost standard, this has meant a two-stage estimation of lifetimes, involving a reduction of one year for each child, combined with an additional two years for the lifetimes assumed in developing the low cost budgets generally. As a consequence of this approach, some of the items in the low cost budgets for households with two children have the same lifetimes as those items in the modest but adequate budgets for households without children.

The lifetimes of both carpets and vinyl have been assumed to be between 10 and 15 years, on the basis of information provided by relevant retailers. A lifetime of 15 years has been allocated

to the households without children although again, in line with the UK study, those lifetimes have been reduced for households with children.⁴

7.3 Methods and Decisions

As noted earlier, in deciding which items to include in the BSU household goods and services budgets, the UK budget standards research has been used as a very valuable starting point (McCabe and Kirk, 1993). There are, however, a number of important differences between Australia and the UK, and many of the decisions made in the Australian research have been made independently of the UK study. What follows is a detailed account of those decisions and the reasons for them.

Living Room Furniture

Armchairs have not been included in the budget allocations, because they are no longer an economical proposition, even for those on a modest budget; an armchair seats only one person at a time and costs almost as much as a two-seater sofa, yet there is only a \$30 to \$70 differential at the lower end of the price range, according to Freedom Furniture's catalogue.⁵ Instead the budgets include both two- and three-seater sofas (according to the size of the household), as well as an extra non-upholstered lounge chair for seating accommodation for guests.

As noted earlier, both sofa and chair styles were chosen so as to place them at or around the median catalogue price. The choice of sofa fabric was guided by analysis reported in *Choice* magazine, which indicated that the cheapest fabrics; 'will only give around two to five years of service... For soft furnishing fabrics, expect to work your way at least halfway up the price list before you hit substantially more durable materials' (ACA, 1994).⁶

The chosen sofa fabrics are suitable for cleaning by commercial cleaning services.⁷ The frequency of furniture cleaning of sofas for the different household types varies in the budgets so that there is more frequent cleaning for all households with children at the modest but adequate level due to extra wear and tear. Slightly less frequent cleaning was assumed for all similar households at the low cost standard.

Decisions concerning which other items of furniture to include in household living areas were difficult. Median prices cannot be used as a guide because there are no easily identifiable discrete items of furniture (like sofas, beds, tables or chairs) for which prices are listed. Rather, living room storage/entertainment units tend to consist of modular units comprising shelves,

The assumed lifetime for all curtains and blinds, based on the Australian Master Tax Guide's (CCH Tax Editors. 1993) determination of effective life for depreciation rates, is seven years.

Armchairs are also not as popular as they once were. See: 'The Sofa Story: The Lounge Suite is Dead. Long Live the Sofa!' *The Sunday Age*. 22 May 1994.

The sofa selected for inclusion in the modest but adequate budgets was priced at around the third level of four possible levels of fabric prices with less expensive sofas allocated to the low cost standard.

Estimates of the costs of cleaning at both modest but adequate and low cost standards were based on prices obtained from several professional upholstery cleaners in the Hurstville Local Government Area. Details of cleaning costs are provided in Appendix 7.A

The lounge chair allocated in some budgets is assumed to have a timber frame with removable foam-filled cotton covered cushions and is suitable for hand washing as required.

drawers and cabinets, and their supports which can be combined in a large number of variations.

The eventual decision was based on a minimum requirement of living-room storage for the books, magazines, games, tapes, mementoes, photos and photo albums, stationery and entertainment units which are present across other areas of the household's overall budget.

At the low cost standard, a metal trolley from Freedom Furniture was chosen as the most economical solution to the problem of how best to accommodate the TV, video and stereo with a similar-sized, median-priced 'Aspen' TV stand allocated to the modest but adequate budgets.

From Ikea, combination units at both standards—'Ivar' and 'Niklas' for low cost and 'Akrobat' and 'Kavaljer' for modest but adequate—were included to provide storage; smaller units for the one- to three-person households and a larger unit for the four- to six-person households. Since this is a rather spartan standard of furnishing for the main living area of the house, a bookcase with adjustable shelving (priced differently) at both standards was also included.

In relation to dining furniture, a small five-piece dining suite was included in the budgets of single and couple households living in units with limited space, as well as for low cost households with less than four members. For the other households at the modest but adequate level, a larger dining table of close to the same size as the one included in the UK budget standards study, (i.e. 211cm x 111cm) has been included. A matching, set of dining chairs, priced around the average of the price range of dining chairs, was also included. Less expensive tables and chairs were allocated to the low cost households.

Bedroom Furniture

According to information supplied by bed retailers, queen size is by far the most popular bed size in Australia. People tend not to buy single beds for themselves, and only buy double beds when the bedroom itself is too small for a queen size bed. Even older children tend not to have a standard size single bed, but instead have either a 'king size' single, or an even bigger bed (often queen size).

Taking this into account, as well as the size of the bedrooms incorporated into the housing budget (see Chapter 3), beds have been allocated to the modest but adequate households as follows:

- a queen size bed to all the younger adults;
- a single bed to the 70-year-old female household;
- a double bed to the 70-year-old couple;
- a king size single bed to households with a 14-year-old boy;
- standard size single beds to the households with younger children;
- a bunk bed to the households where children of the same sex share a bedroom and where space in the room is at a premium.

On the advice of the staff at Capt'n Snooze, the low cost budgets include good quality queen, double and bunk beds costed at somewhat lower prices. An exception was made in the case of households with four children (living in units), where the smaller, second and third bedrooms

only allow for two sets of bunk beds. In all cases (except bunk beds), the beds are assumed to be ensembles, comprising a mattress and sprung base.⁹

While it may have been feasible to replace the ensemble beds for low cost households with slat beds and foam mattresses, the reduced lifetimes that would have to be allocated to the cheaper product (foam mattress) could result in a higher overall cost per week. Additionally, it was found that a very similar price structure eventuated overall when a slat bed with an inner spring mattress (of similar quality to the ensemble mattress) was priced. A doona has been allocated to each bed, as well as two pairs of sheets (one fitted and one flat) and a cotton honeycomb weave thermal blanket for use in warmer weather.

Each adult at the modest but adequate standard, where the household is purchasing their home, has been allocated a variant of Ikea's 'Pax' wardrobe combination, consisting of two 60cm, modules with doors (one mirrored), and one set of three drawers.¹⁰ This provides each adult (and the 14-year-old boy) with 60cm of long hanging space and 60cm of short hanging space, which should be adequate given the contents of their clothing and footwear budgets (see Chapter 6). Children aged three, six and 10 have similar but smaller wardrobes allocated to them. Similar allocations of less expensive wardrobe combinations (Ikea's 'Axel' brand) have been made for the households living in public housing.¹¹

Other furniture items in the bedrooms have been allocated depending on the number of individuals in the household and the size and type of dwelling. For example, in general for households comprising either single people, couples or couples with three children or less, the adults and the 14-year-old boy have been allocated a large chest of drawers each and the younger children a smaller one. Each child (including the three-year-old) has been allocated a small bookcase in their bedroom and the older (10- and 14-year-old children) have been allocated a desk and chair.¹²

The following exceptions in allocating additional bedroom furniture were made in the case of larger households living in units with three and four children where space is limited: At both the modest but adequate and low cost standards, where children share a bedroom, only one chest of drawers, one bookcase, one desk and chair and no bedside tables have been allocated. In the case of households living in units where a 10- and 14-year-old share a bedroom, one large chest of drawers has been allocated to them, while for the three- and six-year-old girls similarly sharing, a smaller chest of drawers has been included.

Household Linen and Soft Furnishings, Tableware, Cookware, Kitchen Utensils, Cleaning and Household Products

These items were chosen partly with reference to what was included in the UK household goods and services budget, partly with reference to Australian conditions and cultural norms

The Chiropractors' Association recommend the Sleepmaker range of beds distributed by Capt'n Snooze. See also the article; 'Sleep E-Zzzzz: the quest for a mattress that's just right' in *Choice* magazine (ACA. August 1993).

¹⁰ Households privately renting are assumed to live in units with built-in robes in the bedrooms (see Chapter 3).

A suitable mirror (with double-sided tape) from Target is provided for one 'Axel' wardrobe for each household.

¹² No furniture has been allocated where there are 'extra' bedrooms, i.e. where the number of bedrooms (in single and couple households) exceeds the housing occupancy norm described in Chapter 3.

(where these could be shown to differ from those in the UK), and partly by drawing on information from the *Household Expenditure Survey, 1988-89*.¹³

A full listing of the items included under these categories is provided in the illustrative modest but adequate budget for a couple with no children presented in Appendix 7.B.

Household Appliances

As mentioned above, deciding which items to include at the generic level such as the number and type of beds, tables, chairs, kitchen utensils, was usually not too difficult. In the case of some appliances, however, it was not at all clear whether or not to include them in the household budgets.

While it is reasonable to assume that most households would have a refrigerator, washing machine, television set and video recorder, decisions pertaining to the ownership of appliances such as a microwave oven, clothes dryer, separate freezer, sewing machine or BBQ are far less clear-cut.

Some relevant information on this point has been supplied by The Australian Institute of Family Studies (AIFS), in their Australian Living Standards Study (ALSS) (McDonald, 1993), which collected data on whether or not the households surveyed (all of which contain dependent children) owned certain domestic appliances. Over 90 per cent of households included in the ALSS owned a refrigerator and a washing machine, while well over 50 per cent had a microwave oven and a clothes dryer, but only a minority of households owned a dishwasher (Table 7.1).¹⁴

Table 7.1: Ownership of Domestic Appliances by Households with Children

Appliance	Percentage ^(a)	Percentage ^(b)
Refrigerator	96.9	•
Washing machine	94.1	-
Microwave oven	74.2	75.2
Clothes dryer	71.1	-
Dishwasher	36.4	
Sewing machine	n/a	56.7
Barbecue	n/a	54.4

Sources: (a) McDonald (1993), *Australian Living Standards Study* (sample size = 4,966).
(b) Ironmonger (1996), *Australian Readership and Product Survey, 1995* (sample size = 50,540).

As explained in Chapter 2, throughout the budget standards research, a 50/75 per cent ownership rule has been used to decide whether or not to include specific items in the modest but adequate and low cost budgets, respectively. Application of the 50/75 per cent rule thus

¹³ Use was made of information from the 1988-89 HES as the 1993-94 HES was not available at the time. It should be noted that the lists of items are quite similar in both surveys.

¹⁴ Further information from the Morgan-Gallup Survey (Ironmonger, 1996), also summarised in Table 7.1, provides information on the ownership of sewing machines and barbecues.

implies, in light of the appliance ownership data summarised in Table 7.1, that every household with children is assumed to have a fridge, a washing machine, and a microwave oven.¹⁵

In contrast, the ownership rule implies that only households with children at the modest but adequate standard should be allocated a clothes dryer, sewing machine and BBQ. Finally, no households have been allocated a dishwasher, since the estimates in Table 7.1 indicate that the ownership rate for this item falls short of the 50 per cent benchmark.¹⁶

The Morgan-Gallup Australian Readership and Product Survey, 1995 (Ironmonger, 1996) also provides information on appliance ownership for households without children including single people and couples, both young and old. This is summarised in Table 7.2. In the light of these data, the application of the 50/75 per cent rule implies that households without children at the modest but adequate level are assumed to have a refrigerator, washing machine, microwave oven, clothes dryer and in some cases a barbecue.¹⁷ For those households without children at the low-cost standard, a refrigerator and washing machine and microwave have been allocated.¹⁸

Table 7.2: Ownership of Domestic Appliances by Households Without Children

Appliance	Percentage
Refrigerator	(97) ^(a)
Washing machine	(94) ^(a)
Microwave oven	75
Clothes dryer	51
Dishwasher	15
Sewing machine	34
Barbecue	60

Note: (a) These estimates are taken from the Australian Living Standards Study (McDonald, 1993) and refer to households with dependent children.

Source: *Morgan-Gallup Australian Readership and Product Survey* (Ironmonger, 1996).

Once ownership of the appliances had been determined, specific models were chosen and costed from recommendations provided in *Choice* magazine. A large national electrical company (Retravision) was chosen for pricing various whitegoods tested as recommended by the Australian Consumers Association in *Choice* magazine in the 1990s.

¹⁵ The issue of the ownership of televisions and video recorders (and the associated costs) is considered in the leisure budget discussed in Chapter 10.

¹⁶ All households at both standards are also assumed to own a sewing box for minor repairs.

¹⁷ Due to space limitations, households living in units at the modest but adequate level were not allocated a barbecue. A gas barbecue is the most popular type used by households with children and has thus been included in the budgets of these households.

¹⁸ A more detailed breakdown of ownership of some of the appliances shown in Tables 7.1 and 7.2 can be found in the 1996 survey undertaken by AGB McNair for the Independent Pricing and Regulatory Tribunal of New South Wales (AGB McNair, 1996). Information from this survey has assisted in the development of the BSU energy budget (see Chapter 4).

¹⁹ Retravision has 523 stores Australia-wide and is the largest specialist retailer of electrical products in Australasia, holding 28 per cent of the whitegoods (cooking, laundry and refrigeration) market.

Some of the models recommended by *Choice* in recent years were no longer available to price. On the advice of a Retravision store manager, an alternative model of the same brand was costed and where this was not possible, the most popular brand or market leader was chosen for inclusion in the budgets.

A sewing machine has been allocated to all households with children and *Choice's* 'Best Buy' recommendation, a Janome Mystyle 20, was costed at the Hurstville Sewing Centre, the local agent for Janome brand sewing machines.

Electric storage hot water systems (HWS) have been assumed in developing the BSU energy budgets (see Chapter 4) for all households.²⁰ As with other appliances, these systems have been assumed to have a limited life span (on average of around 15 years) and the cost of a RHEEM water heater has been included in the budgets for all households either owning or purchasing their home.

Advice on the most appropriate size heater for a two bedroom unit, for two and three bedroom houses with varying numbers of occupants, was obtained from RHEEM (the leading HWS brand) and these models were then priced at BBC Hardware (see Appendix 7.C for details). The cost of installing a replacement HWS using existing off-peak heating has also been included in the budgets.

Three sizes of two-door refrigerators were priced—a 520 litre capacity model for the four- to six-person households, a 400 litre model for the two- and three-person households, and a 220 litre model for the single person households.

Guests

Provision has been made in developing the budgets to allow for some home-based entertaining. This involves expanding some areas of the budgets to include some extra chairs, crockery, cutlery etc., although no provision has been made for overnight guest accommodation, largely because of ensuring that the difficulty and expense of the extra sleeping accommodation is available.

The BSU budgets do, however, provide for the bare minimum of overnight guest accommodation for families with children by inclusion of one or two single foam mattresses (depending on the number of children in the household) which can be placed on the floor, along with one or two extra pillows, one or two sleeping bags for cold weather, one or two cotton thermal blankets for hot weather, and one or two extra single flat sheets.

Gardening and DIY Tools

These items were priced with the assistance of BBC Hardware and from pricing catalogues distributed by BBC Hardware, Thrifty-Link Hardware, Hardware House, Mitre 10 and Hardware and General Supplies. A petrol lawn mower was chosen as they are more popular and safer to operate than electrical ones and though more expensive initially, have longer lifetimes and are more economical to run.²¹

²⁰ Information on the costs of suitable alternative gas storage hot water system for purchasers and owners is provided in Appendix 7.C.

²¹ A basic Victa (leading brand) two-stroke mower (with some spare parts) was chosen for most households either purchasing or owning a house.

An exception to the assumed ownership of a lawn mower was in the case of the 70-year-old woman living alone (at both standards) who was assigned the cost of a lawn mowing service every three weeks in the warmer months (October to March) and every six weeks at other times during the year, giving a rounded total of 12 services in a calendar year. An average price per service was calculated after contacting a number of mowing services in the Hurstville Local Government Area."

Floor Coverings

Floor coverings were priced at an inner-city branch of Grahame Webber's Independent Carpet Centre, while the carpet chosen was an Invicta pure wool Berber which is among the least expensive in the price range of carpets (approximately \$89 per metre including laying and underlay). Carpet is sold by the metre (or part-metre) and is 3.66 metres wide. Estimates of the area of floor-coverage required were made on the basis of floor-plans of the dwelling types included in the BSU housing budgets (see Chapter 3).

The estimates take into account the need to minimise the number of joins in the carpets and so as to keep the nap of the carpet running the same way. Vinyl floor covering comes in two-, three- and four-metre widths and the required floor coverage has been estimated according to the most economical width for the floor area of the dwelling.

No carpet or vinyl floor coverings have been allocated to households in rental accommodation, since these are assumed to be the landlord's responsibility.²³ However, several small floor mats have been included in the budgets of the low cost households living in rental accommodation.

The cost of a commercial carpet cleaning service for households at the modest but adequate standard has also been included in the budgets. For those at the low cost standard (except for the older female and the older couple), the costs of carpet cleaning have been calculated on the cheaper 'do-it-yourself' method, involving hiring a machine (available from most chain stores for approximately \$24) and the purchase of a container of carpet detergent (around \$10 per litre) and a container of defoaming liquid (\$6 per 500 mls).

For families with children, carpet cleaning is likely to be required on a more regular basis because of the greater wear and tear of carpets due to the presence of children in the household, and the assumed frequency of use of this service has been increased accordingly. The costs are based on information obtained from a number of commercial carpet and upholstery cleaners in the Hurstville Local Government Area, an article on carpet cleaning 'Doing it yourself' in *Choice* magazine in 1996, and from information provided by staff at Kmart.²⁴

Blinds and Curtains

As with the floor coverings, blinds and curtains for those in private rental accommodation are assumed to be the landlord's responsibility and have thus not been included in the budgets. However, while floor coverings in public rental dwellings are the responsibility of the

²³ Some gardening equipment, i.e. pots, plants etc. is included in the leisure budget (See Chapter 10).

²⁴ Since all BSU households at the low cost standard are living in rental accommodation, the question of low cost carpet or vinyl does not arise.

²⁴ Appendix 7.A provides further detail on the breakdown of these cleaning costs.

Department of Housing, blinds and curtains are not provided and are therefore included in the low cost budget.

Estimates of the requirements for blinds and curtains have been based on the window sizes which are in turn based on floor plans of the assumed dwelling types. The costs of appropriate blinds or curtains to fit various window sizes have been allocated for purchasers, home owners and those in public rental situations.

For bedrooms and kitchens, where light control and privacy are important, holland blinds have been included. A number of the windows in various rooms in the dwellings appear to be stock sizes, and hence can be dressed in standard size blinds. As the windows in the three-bedroom houses were not of stock size and thus required made-to-measure blinds, quotes were obtained from six local blind and curtain companies in the Hurstville and St. George areas and the lowest quoted price were used for inclusion in both budget standards.

The glass wall onto the balcony in the two- and three-bedroom units (see Chapter 3) requires made-to-measure curtains, as do the living room windows in all other dwellings. Price estimates were based on the cost of inexpensive continuous curtaining (requiring no sewing) purchased from an Australian-wide curtain, fabric and manchester store (Spotlight).

Suitable lengths of curtain rod and curtain rod brackets are costed in the individual budgets. It has been assumed that the bathrooms, toilets and laundries have opaque glass and thus do not need any further coverage. All curtains are assumed to be suitable for home laundering. Details of the estimated window sizes and type of covering used and cost for the different dwelling types are provided in Appendix 7.D.

Household and Cleaning Products

This element of the household goods and services budget includes a vast array of goods, each of which had to be identified and then priced. The general approach used was the same as that described above for other parts of the household goods and services budget, to which there is relatively little to add by way of commentary, except to list each item individually. The relevant details are provided in Appendix 7.E.

7.4 Domestic Pets

According to a recent article in the *Medical Journal of Australia*, ownership of domestic pets has a beneficial impact on people's health (Anderson, 1996). For reasons as yet undetermined, the evidence indicates that pet owners are less likely to visit the doctor, less likely to suffer from hypertension and high cholesterol levels, less likely to die in the year following a heart attack, and less likely to suffer from minor illnesses in the first months of pet ownership.

Pets are also comforting for people in crisis situations, and have a marked therapeutic effect on the sick, especially children and the elderly—so much so that some hospitals and nursing homes have made arrangements for pets to visit regularly (Lunn, 1996; Headey and Anderson, 1995; Australian Companion Animal Council, 1995).

Pets are also an integral and important part of the lifestyle of many Australians. The Australian Bureau of Statistics has estimated that, in 1994, there were almost as many household pets (17.8 million) in Australia as people (ABS, 1995). Just over 59 per cent of all households had

at least one pet at the time of the ABS survey, while 82 per cent of households had had a pet at some time.

The ABS survey indicates that households most likely to have pets are those consisting of couples with children aged between 10 and 14 (over 75 per cent of whom had a pet), couples with children of any age (74 per cent of whom had pets), lone parents and their children (62 per cent), and couples without children (59 per cent). Single people under 35 and over 60 were far less likely to have pets, their ownership rates being 30 per cent and 32 per cent, respectively.

Looking only at the total numbers involved, the most common types of domestic pet were birds and fish, although this does not necessarily mean that they were the most popular pets across all households. Their large numbers may be explained by the fact that those households which keep birds or fish are more likely to have several of them, unlike those households with dogs or cats who tend to have fewer of each—often only one. Dogs were the most popular pet (38 per cent of all households had a dog or dogs), followed by cats (27 per cent), then birds (16 per cent) and fish (nine per cent) (ABS, 1995).

Given that dogs are the most popular pet, ownership of dogs and their related upkeep costs have been included in the budgets of some of the BSU households. As in other areas, pet ownership should be allocated according to the 50/75 per cent rule described earlier, and on the basis of the above data on pet ownership rates.

In the case of pet ownership, however, there has been a divergence from the strict application of the 50/75 per cent rule. It was decided on normative ground to allocate a pet to the sole parent households at the low cost level as it should not be assumed that sole parents and their children have lesser needs than couples with children in relation to keeping a pet.

In estimating the costs of a pet, it would have been a simple exercise to allocate only one type of pet for all households at both standards. There are two reasons, however, for allocating both dogs and cats to different households. It appears appropriate to allocate dogs to those living in houses because they are the most popular pet and there can be assumed to exist sufficient space to keep them outside. In addition, dogs are also a security factor in safeguarding properties where both adult members of the household are in paid employment, as is the case of the majority of budget standard households at the modest but adequate level. Thus a dog is allocated to modest but adequate households who are living in houses.

Households with children at the low cost standard are, however, assumed to be living in either public or private rental properties. Information provided by a number of real estate agents in the Hurstville area indicated that, in relation to the keeping of animals as pets in units, the majority of landlords and body corporates do not permit pets, especially dogs, to be kept in rental properties.

The NSW Department of Housing is more flexible in its approach to renters, who are allowed to keep pets in their units. A spokesperson for the Department indicated that while dogs are more problematic and likely to be rejected by individual public housing complex committees owing to their physical size, the noise they create and the soiling of common areas, cats are far more acceptable and are usually allowed.

On this basis, BSU households at the low cost standard who are assumed to be living in public housing and to have a pet, have been allocated a cat. The resulting allocation of pets to each of the 12 basic household types are shown in Table 7.3.

Table 7.3: The Assumed Ownership of Pets by Household Type

Household Type	Ownership Rate ^(a) (%)	House	Modest but Adequate	Low Cost Public renter only
Single Female (F)	30			
Couple—no children	59	dog		-
Couple — two children (G, 6; B, 14)	75	dog		-
Single F—one child (G, 6)	62	dog	cat	
Aged Female	32			-
Aged couple	32			-
Couple— one child (G, 6)	74	dog	cat	
Couple— one child (B 14)	75	dog		-
Couple— one child (G, 3)	74	dog		-
Couple— three children (Gs, 3 & 6; B, 14)	75	dog		-
Couple — four children (Gs, 3 & 6; Bs, 10 & 14)	75	dog		-
Single F— two children (G, 6; B, 10)	62	dog	cat	

Note: (a) Ownership rates have been derived from data presented in ABS (1995).

In estimating the costs of pets to a household, it has been assumed that the household acquired their cat or dog at no cost, possibly from friends, relatives or neighbours, which is the most common way of acquiring a pet according to information contained in the ABS (1995) survey. It has also been assumed the dog is of medium size (up to 15kg) and that both the dog and the cat are de-sexed males. The assumed lifetimes of pets are the same as those incorporated into the UK budgets, i.e. 14 years for the cat and 13 years for the dog.²⁵

Pet food costs have been estimated following the advice of *Choice* magazine, and have been based on a diet consisting of a mix of tinned and dry food, together with raw bones once a week (ACA, 1995a). The amount of pet food allocated has also been based on the amounts stipulated in the UK budgets (McCabe and Kirk, 1993, pp. 94-95).

Information on the costs, frequency and desirability of veterinary services and medications was obtained from the Australian Veterinary Association (AVA) and the Department of Veterinary Training at the University of Sydney. According to the AVA, both cats and dogs should have an annual booster immunisation shot to protect them from distemper, hepatitis, paraviruses and parainfluenza. In addition, both should be wormed every three months, and dogs should also be given heartworm tablets monthly. Finally, the budgets of pet-owning households also incorporate an annual registration fees for dogs of \$4 (the fee for de-sexed dogs).²⁶

²⁵ These estimated pet lifetimes are important when calculating the annual cost of veterinary fees for de-sexing the animals.

²⁶ These are the fees imposed by the Hurstville Council on pet-owner residents. A concessional rate of 50 cents applies to pensioners who own a dog.

One week's annual holiday away from home is allowed for all households at the modest but adequate level in the leisure budget (see Chapter 10). It is assumed that for households with pets, neither dogs nor cats are taken on this annual holiday, but are left instead in the care of family, friends or neighbours at no cost to the owners (aside from normal food costs).

7.5 Telephone and Postage Charges

Telephones

Information provided by Telstra in October 1996 indicates that 96 per cent of all Australian households have a telephone. Based on application of the 50/75 per cent rule, all BSU households at both modest but adequate and low cost standards have been allocated a telephone. The rental cost of a Telstra phone is \$2.50 per month; alternatively a phone may be purchased from Telstra at a one-off cost of \$50.²⁷

If a phone is required to be connected to the premises, an installation fee of \$50 is charged by Telstra for connecting to an existing residence and \$173 for connecting to a new residence. Included in all phone bills is a monthly line rental charge of \$11.65. Each local call costs 25 cents and if a minimum of \$15 is incurred each month for phone calls, a 15 per cent discount applies.

Despite extensive enquires directed to Austel, Telstra and other peak telecommunication organisations, data were not available on the size of an 'average' phone bill per individual or household. Neither was there any information on the number of individuals per households who use or have access to a phone, nor whether there is any distinction for billing purposes according to whether particular telephone lines are for personal use, business use or a combination of both.

In determining the annual telephone charges and the cost of having a phone in all BSU households, the following approach was adopted. Telstra charges allow an estimate to be made of annual telephone costs. The estimated figure for the cost of phone bills in the budgets is based on the cost of a telephone (purchased commercially), plus an initial installation cost to an existing residence, line rental costs and two local calls (costed at 25 cents each) per day per adult and, where relevant, for the 14-year-old boy. As it is more economical in the long term to purchase a phone, no allowance has been made for rental charges.

Holders of a DSS Pensioner Concession Card who have a telephone are entitled to a telephone allowance. Because this allowance takes the form of a direct payment to the pensioner, it is not reflected in the household goods and services as explained in Chapter 2. However, the deduction allowed by Telstra of \$3 per quarter per pensioner account is incorporated in the low cost budgets of the aged and sole parent pensioner households.

The initial costs of a phone and the installation cost are averaged over the 'assumed lifetime' of the phone connection. The variation in the length of tenure between private and public renters determines the lifetime of the phone. Information provided by the Rental Bond Board indicates that the average length of stay in private rental accommodation is around two years, and for those in public rental, 10 years or more.

²⁷ Subscribers are no longer required to use a Telstra phone but can choose to buy another model if they wish. A 'Slimline 15' model priced at \$50 has been included in the budgets.

For budget standards purposes, public tenants have been allocated a telephone lifetime of 10 years and private renters a lifetime of two years. The phone charges in the budgets take no account of costs incurred for use of public telephones, for the purchase of telephone cards or for the cost of making any long-distance calls.

By way of illustration of the approach, Table 7.4 provides details of the annual phone bill costs for a couple with one child, on the basis of alternative assumptions regarding their housing situation.

Table 7.4: Annual Telephone Charges for a Couple with a 14-Year-Old Boy

	Total Cost (\$)	Annual Cost Private renter (\$)	Annual Cost Purchaser (\$)
Purchase of the telephone	50.00	3.30 ^(a)	3.30 ^(a)
Installation charge	50.00	25.00 ^(b)	na ^(c)
Monthly line rental charge	11.65	139.80	139.80
Weekly local call charges (3x2x0.25x7 = \$10.50)	10.50	465.35 ^(d)	465.35 ^(d)
Total	633.45		608.45

- Notes: (a) Based on an assumed lifetime of 15 years.
 (b) Assumes a tenure of two years.
 (c) No installation charge is allocated to owners and purchasers.
 (d) Assuming that a 15 per cent discount applies to call charges.

Postage

As with the cost of telephone accounts, there is no information available from Australia Post on the average amounts spent by individuals or households on postage. Despite electronic alternatives such as telephone, facsimiles, electronic mail and the Internet, hard copy mail is still a vital aspect of the communication industry, with the postal service delivering over four billion items nationally in 1995-96 (Australia Post, 1997).

Based on postal charges applicable in February 1997, all BSU households at both standards have been allocated a budget to cover a small amount of postal charges.

All Australians are currently provided with a universal letter service for domestic standard letters at a uniform price of 45 cents each. As the standard, or small letter, is the most common mail article handled by Australia Post, all BSU households at both standards have been allocated four books of 10 45 cent stamps to cover their annual postal requirements for personal and business correspondence, including greeting cards other than at Christmas.

During the Christmas period 40 cent stamps are available for greeting card mail and each household has been allocated a total of 18 40 cent stamps to cover Christmas mail within

Australia.²⁸ No allowance has been made for the costs of overseas mail, at Christmas or other times during the year.

Delivering small parcels is a large component of the Parcel Post service and Australia Post is the market leader for household and small-parcel delivery. To cover the postage costs of a small number of items (within Australia), households at both standards have been allocated a number of parcels for posting depending on household size.²⁹

Table 7.5 indicates the annual allocation for households at the modest but adequate standard. Households at the low cost standard have a similar allocation spread over a two-year period.

Table 7.5: Allocation of Annual Parcel Postage Cost by Household Type

Household type	Type of parcel	Number of parcels	Cost of parcels (\$)
One adult	small	2	5.60
Two adult	small	3	8.40
Single parent with one child	small	3	8.40
Couples with one or two children	small	2	
	large	1	10.60
Single parent with two children	small	2	
	large	1	10.60
Couples with two or more children	small	2	
	large	2	15.60

Charitable Donations

Australian households donate various amounts of monies and goods in a variety of ways to charitable bodies (both national and international), to relief funds, churches and school building funds, including through regular contributions, donations, raffle tickets, and so on. Data from the latest *Household Expenditure Survey* indicates that the average figure for all Australian households in 1993-94 was \$3.90 per week.

Despite this, no allowance has been made for charitable donations in the budgets, in part because of lack of information on how the pattern of donation varies with household circumstances and standard of living, but also to maintain broad consistency with the 'gifts in equals gifts out' assumption explained in Chapter 2.

Union Membership Fees

Union membership is currently quite low in Australia, at around 31 per cent of the work force (ABS, 1996a) and no amount has thus been allocated in the budgets to represent union fees.

²⁸ Forty cent stamps can be used for posting seasonal greeting cards to any destination in Australia between 1 November and 31 December. The cards must be enclosed in envelopes of standard article size, sealed and marked 'Card Only'.

²⁹ Small parcels are assumed to weigh between 250 and 500 grams, costing \$2.80 per parcel, with larger parcels weighing between 500 grams and one kilogram, at a cost of \$5 each.

7.6 School Expenses

Information on the range of school expenses for children of various ages attending government schools in Australian States and Territories has, until recent times, been unavailable. State education in Australia is supposed to be free, but surveys conducted by the Brotherhood of St. Laurence (BSL, 1996) and the Smith Family (Taylor, 1997) as well as the information contained in a Parliamentary Committee Report (Australian Senate, 1997) indicate that school levies and charges and other additional school costs are becoming an increasing financial burden on families.

In the case of General Fees which are generally described as 'voluntary contributions' and are not legally compulsory, the evidence from the above research is that strong pressures are nevertheless brought to bear on households to pay them.

For estimating the costs of government schooling for budget standards purposes, use has been made of the study conducted by the Smith Family.³⁰ In December 1996 the Smith Family conducted a survey of schooling costs among 640 families involved in the Smith Family's EDU-CATE program (Taylor, 1997).³¹ Information was obtained on the costs associated with a wide range of school items for both primary and secondary school students of families living in relatively low income areas.

Because the cost of school uniforms is covered in the clothing and footwear budget (see Chapter 6) it is not included again as part of the estimated cost of schooling. The following additional items were included as part of schooling costs for inclusion in the household goods and services budget:

- general fees;
- contributions to P&C associations;
- text books;
- paper and photocopying;
- computer disks;
- materials for assignments;
- elective subjects;
- purchase of fundraising items;
- school photos;
- school camps;
- school excursions;
- school sports (summer);
- school sports (winter); and
- school entertainment.

The information provided for the cost of each of the above items in New South Wales has been used for estimating the costs of school expenses for both secondary and primary school students at the modest but adequate level. In the case of households at a low cost standard, there is a case to be made for these families to receive some financial relief from school expenses through the various State Government schemes established to provide assistance.

³⁰ This survey is referred to in the clothing and footwear budget as the companion study on schooling costs conducted by the Smith Family (see Chapter 6).

³¹ The survey covered New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory.

These schemes include, for example, the NSW *Student Assistance Scheme* which operates to provide extra money to schools for disadvantaged families who cannot meet the costs of schooling. There is, however, strong evidence from the Smith Family survey (Taylor, 1997) and from the Senate Report (Australian Senate, 1997) that the assistance schemes provided by the various States are 'not always sufficient to cover the amount of school charges let alone any additional expenses such as the costs of excursions, camps, etc' (Australian Senate, 1997, p. 50).

Despite this, and in recognition of the partial financial assistance provided by the State schemes for disadvantaged families, the general fee, as well as the amounts covering P&C Club contributions and fundraising items have been omitted from the low cost budget of households with children of secondary school age. All other items have been included as essential for allowing children from these households to participate in the full range of opportunities offered within the state school system.

Tables 7.6 and 7.7 provide details of the costs for all States in the Smith Family survey for primary and secondary schools, respectively.³² The figures for NSW shown in these tables have been used in constructing the budgets.

Information relating specifically to the costs of schooling for *infants* (including the six-year-old girl) was obtained from a number of primary school principals in the Hurstville Local Government Area. The average annual costs for children aged five to six years consists of \$30 for fees and \$15 for entertainment/excursions.

The cost of school photos and material for assignments has been assumed to be the same as for a primary school student, i.e. \$19 and \$27, respectively (see Table 7.6). Following the guidelines outlined above for low cost households with primary and secondary students, households with a six-year-old girl at the low cost standard are assumed not to have to meet the cost of general fees.

On this basis, a sum of \$789 per year has been allocated for the school costs of a 14-year-old child at the low cost level and \$906 a year at the modest but adequate level. Similarly, the primary school costs for the 10-year-old at the low cost standard have been set at \$629, with the amount for the modest but adequate standard set at \$745.³³

7.7 Child Care Costs

Long Day Care

The costs of long day care for households with a three-year-old child have been estimated on the basis that these households where both parents are in full-time employment require 241 days of care a year. This number has been arrived at by deducting from the 365 days in a year 124 days comprising: 104 weekend days and 20 working days (four weeks) when the child care centre is assumed to close down.⁽³⁴⁾

³² These costs are only relevant to households with boys of 10 and 14 years of age, respectively.

³³ Although some schools charge less for second and subsequent children from the same family, and others have a set fee per family (Howard and Coulter, 1995, p. 24), these modifications have not been allowed for in the BSU budgets because of the wide variations involved.

³⁴ This four-week period is assumed to include Christmas Day, Boxing Day and New Years Day.

Table 7.6: Average Yearly Costs for Primary School Students (Aged 8-11 Years) Attending State Schools

	NSW (\$)	VIC (\$)	QLD (\$)	SA (\$)	ACT (\$)
General fees	73	160		93	120
P&C Club Contribution	16	90	-	27	27
Text books	43	92	93	12	64
Paper/photocopying	8	17	14	13	33
Computer disks	15	12	3	5	30
Material for assignments	27	34	21	19	51
Elective Subject(1)	59	52	-	72	61
Elective subject (2)	31	32	-	13	108
Fundraising items	27	11	-	27	50
School photos	19	19	8	18	22
School camps	75	100	180	58	132
School excursions	46	40	43	28	42
Sport (summer)	40	47	53	26	145
Sport(winter)	50	54	85	47	26
Schoolentertainment	31	74	48	16	30
Total	745	834	548	474	941
Total minus General Fees, P&C Club Contribution and Fundraising	629	573	548	327	744

Source: Taylor, 1997, Appendix B.

Table 7.7: Average Yearly Costs for Secondary School Students (Aged 12-18 Years) Attending State Schools

	NSW (\$)	VIC (\$)	QLD (\$)	SA (\$)	ACT (\$)
General fees	77	112	124	136	102
P&C Club Contribution	21	22	27	18	10
Text books	51	165	96	56	54
Paper/photocopying	15	22	16	13	14
Computer disks	19	13	10	10	17
Material for assignments	27	35	32	29	38
Elective Subject(1)	44	70	68	110	41
Elective subject (2)	42	63	46	55	54
Fundraising	19	27	28	13	24
School photos	21	19	13	20	17
School camps	116	199	120	130	160
School excursions	49	48	46	47	63
Sport (summer)	39	49	40	61	32
Sport(winter)	41	48	54	70	25
Schoolentertainment	33	34	40	20	39
Total	906	926	760	788	690
Total minus General Fees, P&C Club Contribution and Fundraising	789	765	581	621	554

Source: Taylor, 1997, Appendix A.

The cost of \$33 per day is the average daily cost of long day care centres in the Hurstville Local Government Area. The budgets where long day care is costed take account of the concessions in respect of Childcare Assistance in existence in February 1997.³⁵

Occasional Care

For households with a pre-school child where there is one adult not in the labour force, an allocation of up to eight hours per month for occasional child care has been allowed. This allocation of occasional care is intended to allow the parent to have a limited amount of respite, to allow them to shop, attend medical and other appointment, or to engage in job search activity.

The cost of occasional care has been based on the hourly rate charged by the Hurstville City Council Occasional Care Centre of \$4 per hour (\$32 per month), or \$3.50 per hour (\$28 per month) to those holding a concession or pension card. As neither of the parents in the relevant BSU households are in paid employment, it has been assumed that they are entitled to the lower rate of \$28 a month.

Before and After School Care

There are a number of centres which provide both vacation and out-of-school-hours care for children whose mothers (and fathers) are in paid employment. Most of these centres provide care both before and after school, with a small number offering only after-school care. Some centres provide a cooked breakfast for a small fee (generally \$1 per day) and a number also provide free transport where required between the centre and the school.

The costs vary from centre to centre, with some centres charging different amounts for morning care and afternoon care (see Table 7.8). Most centres charge a flat fee per child, with a small number of centres offering reductions for second and third children. There is generally an extra fee if children are picked up late. Centres also charge an annual equipment fee of around \$20 per family.

Costs of before- and after-school care have been allocated to the BSU households where both adult members of the household are in full-time employment (i.e. at the modest but adequate standard only) on the basis that 203 days of care a year are required for each child. This number has been arrived at by deducting from the 365 days in the year: 104 weekend days and 58 days of public and school holidays (taking account of overlaps). Parents are assumed to take their annual holidays during the school holiday periods so that they can go away on vacation as a family.³⁶

The cost of such care per child has been assessed at \$8.90, which is equal to the average of the charges listed in Table 7.8 (which range between \$4 and \$12 an hour). An annual equipment fee of \$20 per family has also been included. No discounts for second and subsequent children have been allowed for, since the number of centres which offer these concessions is small. No costs have been allocated for out-of-school-hours care for the 14-year-old boy, who is assumed to be old enough to look after himself until his parents get home from work.

³⁵ Details of the Childcare Assistance formula (and examples) are provided in Appendix 7.F.

³⁶ The assumption that families have a holiday together is consistent with the approach used to develop the BSU leisure budget (see Chapter 10).

Table 7.8: Before and After School Care by Hours of Operation and Costs Per Child

Centres for Children Aged 5 to 12	Hours am	Hours pm	Cost am (\$)	Cost pm (\$)	Cost per day (\$)
YMCA, B&ASC	7-9	3-6	-	-	-
Bexley North Public School	7-9	3-6	5.00	6.50	11.50
Hurstville Boys HS After School Care	7-9	3-6	6.00	6.00	12.00
Hurstville Family Day Care	7-9	3-6	3.00	3.80	6.80
Kingsgrove/Bexley North Community Centre	n/a	3-6	n/a	6.00	6.00
Peakhurst South Primary School	7-9	3-6	4.00	4.50	9.50
Penshurst Pole Depot Neighbourhood Centre	6.30-9	3-6	4.50	5.50	10.00
Playhours Kindergarten	7-9	3-6	6.00	6.00	12.00
Georges River Community Service	7-9	3-6	2.00	2.25	4.25
Riverwood	7.30-9.30	2.30-6.00	3.00	4.50	7.50
Lugarno Care Centre	7-9	3-6	4.00	4.50	9.50
Average					8.90

Source: Information obtained from Centres in September 1996.

Concessions are available to working parents on low incomes and/or those receiving maximum rate Family Payment or a part-rate pension. These concessions are of two kinds, full and partial. For example, if the daily fee is \$5.50, parents on full fee relief pay \$3.50, while those on partial fee relief pay \$4.50. These concessions have not been included in the low-cost budgets because the mothers in these households are not in paid employment and thus are not assumed to require before- and after-school care.

In the modest but adequate budgets, the concession for before- and after-school care available to households where both parents are in full-time work which is not income-related is the Childcare Cash Rebate (CCR).³⁷ The rebate has been applied to determine the child care costs incurred by this type of care for households with six-year-old and 10-year-old children where both parents are in full-time employment

Vacation Care

If the parents are not themselves on holiday during school vacation time, then alternative child care arrangements must be made if parents are unable (by virtue of their employment) to provide it themselves. Vacation care centres are provided for school-aged children of working and non-working parents at various community centres and schools. Full and partial fee relief is available to working parents who are on low income and receiving maximum rate Family Payment or part-rate pension.³⁸

³⁷ Details of the Childcare Cash Rebate Assistance formula (and examples) for before- and after school care are provided in Appendix 7.F.

³⁸ An application from the centre/school is sent to the Department of Social Security who after assessment, can approve either full or partial relief to be made available.

The structure of fees varies from centre to centre, with daily fees ranging from \$5.50 to \$10 per child per day. Some centres charge a daily, flat fee per child, while others vary the fee depending on the number of children in the family attending the centre. Each vacation period, the centres charge a registration or booking fee of approximately \$5 per family to cover the cost of materials used at the centre. Some centres are privately run and funded by the Department of Family Services, while others are funded by local Councils. Full fee relief, as of August 1996, is 71 cents per hour.

An average cost for vacation care per child per day is \$9.00 and for a child attending from say 8.30 am to 5.30 pm (nine hours) the fee paid by the parent (net of fee relief) would be \$2.61. Children are required to bring their own lunch. Most centres have at least one excursion a week and the cost ranges from \$6.00 to \$12.00 depending on the destination and whether or not transport is required to get there and back.³⁹

Households with children aged either six or 10 years are assumed to require vacation care. The child care requirements of the three-year-old child are not affected by school vacations while the 14-year-old child is assumed to be sufficiently mature to make vacation care unnecessary. The cost of this care is based on the total of all school vacation time minus the time spent on the family holiday away from home, with the children assumed to spend the remaining time in the direct care of their parents.

All parents are assumed to spend Easter with their children. Among two-parent households, where both parents work full-time, it is assumed that parents will take two weeks annual leave at the same time (including the annual family holiday away, Christmas and New Year), and that they take the remainder of their annual leave at different times of school vacations so as to reduce the time spent by their children in vacation care.

In two-parent households where the father works full-time and the mother is employed part time, it is assumed that the mother works three days a week for five hours a day during school hours. This implies that vacation care will have to be provided for three days a week for every week the mother is working during school vacations and the costs associated with this care have been factored into the budgets.

Employed sole parents are assumed to take all of their annual leave during school vacation and to pay for vacation care at other times. Parents who are not in the labour force or unemployed are assumed to care for their own children during school vacations.

7.8 Summary Household Goods and Services Budgets

Household goods and services budgets at both the low cost and modest but adequate standards have been derived for each of the 12 basic household types on the basis of the methods described above. These summary budgets are presented (for non-purchaser households) in Table 7.9

One of the striking features of the summary household goods and services budgets for households at the modest but adequate standard with children is the very high level of child care and school costs. Where applicable, the Childcare Cash Rebate (CCR) and Childcare

³⁹ As with the concessions available for before- and after-school care, these concessions have not been included in the low cost budgets because the mothers in these households are not in paid employment and thus are assumed not to require vacation care for their children.

Table 7.9: Summary Household Goods and Services Budgets

	Low Cost	Employment status ^(a)	Housing	Type of tenure	Weekly (\$)	Annual (\$)
H _{1c}	Single female—35	Un	1 -bedroom unit	private renter	24.62	1,284
H _{2c}	Couple—male 40, female 35	Un Un	1 -bedroom unit	private renter	30.60	1,596
H _{3c}	Couple—male 40, female, 35. girl 6, boy 14	male Un. female NILF	3-bedroom unit	private renter	58.92	3,072
H _{4c}	Single female—35, girl 6	NILF	2-bedroom unit	private renter	32.31	1,685
H _{5d}	(as above)	(as above)	2-bedroom walk-up	public renter	39.55	2,062
	Aged female—70	Rtd	pensioner unit	public renter	23.96	1,249
H _{6b}	Aged couple—both 70	Rtd Rtd	3-bedroom house	home owner	37.08	1,934
H _{6e}	(as above)	(as above)	pensioner unit	public renter	30.34	1,582
H _{7c}	Couple — male 40, female 35, girl 6	male Un. female NILF	2-bedroom unit	private renter	38.69	2,017
H _{7e}	(as above)	Un Un	2-bedroom walk-up	public renter	47.08	2,455
H _{8c}	Couple — male 40, female 35, boy 14	male Un. female NILF	2-bedroom unit	private renter	51.32	2,676
H _{9c}	Couple — male 40, female 35. girl 3	male Un. female NILF	2-bedroom unit	private renter	43.73	2,280
H _{10c}	Couple — male 40, female 35. girls 3 and 6. boy 14	male Un. female NILF	3-bedroom unit	private renter	70.81	3,692
H _{11c}	Couple — male 40, female 35. girls 3 and 6, boys 10 and 14	male Un. female NILFf	3-bedroom unit	private renter	82.82	4,318
H _{12c}	Single female—35. girl 6, boy 10	female NILFf	3-bedroom unit	private renter	48.40	2,524
H _{12d}	(as above)	(as above)	3-bedroom walk-up	public renter	58.00	3,024
Modest but Adequate						
H _{1a}	Single female — 35	FT	1 -bedroom unit	private renter	30.00	1,564
H _{2b}	Couple — male 40, female 35	FT FT	1-bedroom unit	private renter	37.05	1,932
H _{3b}	Couple — male 40, female 35. girl 6 and boy 14	FT FT	3-bedroom unit	private renter	109.83	5,726
H _{3b}	excludes CCR ^(b)				116.85	6,093
H _{4b}	Single female — 35, girl 6	FT	2-bedroom unit	private renter	75.69	3,946
H _{4b}	excludes CCR				83.05	4,330
H _{5a}	Aged female — 70	Rtd	3-bedroom house	owner	45.07	2,350
H _{6a}	Aged couple — both 70	Rtd	3-bedroom house	owner	47.72	2,488
H _{7b}	Couple — male 40, female 35. girl 6	FT FT	2-bedroom unit	private renter	83.17	4,337
H _{7b}	excludes CCR				90.47	4,717
H _{8b}	Couple—male 40, female 35. boy 14	FT FT	2-bedroom unit	private renter	64.00	3,337
H _{9b}	Couple — male 40, female 35. girl 3	FT FT	2-bedroom unit	private renter	125.01	6,518
H _{9b}	excludes CA & CCR				200.25	10,441
H _{10b}	Couple—male 40, female 35. girls 3 and 6. boy 14	FT FT	3-bedroom unit	private renter	217.43	11,337
H _{10b}	excludes CCR				275.75	14,378
H _{1b}	Couple — male 40, female 35. girls 3 and 6, boys 10 and 14	FT FT	3-bedroom unit	private renter	230.20	12,003
H _{11b}	excludes CCR				292.84	15,269
H _{12b}	Single female — 35, girl 6. boy 10	FT	3-bedroom unit	private renter	130.16	6,787
H _{12b}	excludes CCR				148.52	7,744

Note: (a) Un=unemployed; FT=employed full-time; NILF=not in the labour force; Rtd=retired
(b) CA=Childcare Assistance; CCR=Childcare Cash Rebate. CA and CCR are calculated on weekly childcare costs (and weekly income for CA only) using the CA percentage formula (see Appendix 7.F)

Assistance (CCA) have been calculated for the budgets of households where long day care, before and after school care and vacation care is costed. CCR, the non-means-tested concession for vacation and before- and after-school care, has been applied to determine the net cost incurred for those households where these costs of care apply.

Incorporating the effects of CCA into the budgets creates some difficulty because of its income-tested nature. This problem arises because of the fact that the level of income required to purchase a budget standard cannot be known until the standard has been fully developed and costed, yet the standard itself cannot be completed until income (and hence the level of assistance provided in the form of CCA or other income-tested concessions) is known. A further complication arises in relation to CCA, entitlement for which is determined on the basis of taxable income.

These problems were addressed by applying the following income levels to each relevant household type with children in order to derive an estimate of their CCA entitlement:⁴⁰

couple with three-year-old daughter (H_9)

purchaser - \$1,000

private renter - \$850

couple with three children (H_{10})

purchaser - \$1,300

private renter - \$1,200

couple with four children (H_{11})

purchaser - \$1,500

private renter - \$1,400⁴¹

These income levels are in each case approximately 20 to 25 per cent above the total budget standard for that household, excluding the CCA entitlement. These percentages represent an estimate of the impact of income taxation and other factors that will cause total household expenditure (as estimated as the sum of the budget standard for that household) to diverge from taxable income, which is the basis on which CCA entitlement is calculated.¹⁰

The estimates in Table 7.9 are shown both inclusive and exclusive of estimated (gross) long day care costs. It is clear that the impact of CCA on those households who receive it is substantial, particularly where pre-school age children are present.

⁴⁰ The relevant households are those with a pre-school age child with parents in employment (i.e. at the modest but adequate standard).

⁴¹ Income levels for purchaser couples with three children (H_{10}) and both purchaser and private renter couples with four children (H_{11}) push them above the family income cut-off of \$1,228.00 for CCA. Only the CCR is allocated to these households in respect of assistance for child care costs.

⁴² It could be argued that the 20 to 25 per cent adjustment is an over-simplification, given the complexities of the tax system. However, although it is probably true that a more sophisticated adjustment could be used to account for these, complications would still arise from the need to take account of such factors as household saving. The simple adjustment that has been used has the advantage of simplicity and transparency.

Not surprisingly, the household goods and services budgets also reveal the existence of substantial economies of scale. Thus, for example, the low cost budget for a six-member household (H_{11}) at around \$83 a week, is only just over three times larger than that of a single person (H_1) at around \$25 a week. This reflects the sharing of many of the items that appear in this budget, although there is also a range of specific costs relating to the presence of children of varying ages.

APPENDIX 7.A: Costs of Cleaning Carpets and Lounge Furniture

Costs of Cleaning Lounge Room Furniture (Commercial Cleaning)

(Modest but Adequate and Low Cost)

	\$
Two-seater lounge	42.00
<u>Three-seater lounge</u>	50.00

Costs of Carpet Cleaning

Carpet Area (sq. mtrs)	Modest but Adequate Commercial Cost (\$)	Low Cost Do-it-yourself ^(b) Cost (\$)
1 -bedroom unit	9.7	55
2-bedroom unit	15.3	75
2-bedroom house	17.2	85
3 -bedroom house	26.9	100
3- bedroom unit	26.9	100

- Notes:**
- (a) The older couple and older female are assumed to have the same service as at the modest but adequate standard for the appropriately sized dwelling.
 - (b) One litre of detergent is assumed to last for two cleans in smaller dwellings and the usage is calculated on one container (1 litre) per three-bedroom house and half a container for other dwellings (enough for two cleans).

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
FURNITURE-						
Lounge/Dining						
TV/video/stereo trolley (LC)	Freedom—'Ark'-3-tier-w74xd37xh71	80.00				
TV/video/stereo trolley	Freedom—'Aspen' TV stand w71xd45xh53	110.00	1	15	7.33	0.14
storage/display unit-1 (LC)	Ikea—'Ivar' w80xd30xh179 (x2) wood	500.00				
storage/display unit-1	Ikea—'Akrobat'-w128xd39xh85-lacq. beech veneer	725.00	1	15	48.33	0.93
storage/display unit-2 (LC)	Ikea—'Niklas' wl64xd39xh100/200-steel/wood	738.00				
storage/display unit-2	Ikea—'Kavaljer' w194xd35xh202-lacq. part/brd.					
bookcase (LC)	Freedom—'Alpine' w75xd24xh177-wood	110.00				
bookcase	Freedom—'Strata' w91xd27xh202-wood	200.00	1	15	13.33	0.26
2-seater settee (LC)	Ikea—'Nicolina'-wl63xh83	449.00				
2-seater settee	Ikea—'Pauli'-wl63xh75	899.00	1	17	52.88	1.01
3-seater settee (LC)	Freedom—'Torina' w224	759.00				
3-seater settee	Ikea—'Knutsberg'-w210xh85	1,099.00				
lounge chair (LC)	Freedom—'Bahama' Tub chair, cane	66.00				
lounge chair	Ikea—'Kimsta'-lacq. wood, foam cush. tub. stl. Frame					
		99.00	2	17	11.65	0.22
3 coffee/end tables (LC)	Freedom—'Clair'-timber veneer	200.00				
3 coffee/end tables	Freedom—'Flinders'-wood	299.00	1	15	19.93	0.38
5-pc dining suite	Ikea—'Hepola'-table l07cm/dia.-lacq. wood	399.00	1	15	26.60	0.51
dining table (LC)	Freedom—'Milan' ext. table 160/198x90-oak	339.00				
dining table	Ikea—'Obo'-ext. table- 160/208x 105-lacq. wood	595.00				
dining chair (LC)	Ikea—'Hepola' lacq. Wood	59.00				
dining chair	Ikea—'Obo'-patinised wood	129.00				
Bedroom furniture						
single bed (standard)	Capt'n Snooze—'Sleepmaker'	399.00				
single bed (king)	Capt'n Snooze—'Sleepmaker'	499.00				
double bed (LC)	Capt'n Snooze — 'Ezy Sleep'	599.00				
double bed	Capt'n Snooze — 'Orthopaedic Slumber'	699.00				
queen size (LC)	Capt'n Snooze — 'Sleepmaker'	699.00				
queen size	Capt'n Snooze—'Orthopaedic Slumber'	799.00	1.00	10	79.90	1.53
bunk bed (LC)	Ikea—'Bialitt', wood-2 Sencello mattr.	357.00				
bunk bed	Capt'Snooze — tubular steel +2 Premier mattr.	717.00				
wardrobe (LC)-adult	Ikea—'Axel' 150-wl50xd52xh202. melamine	249.00				
wardrobe-adult	Ikea—'Pax'-white lamin.-w120xd58xh201	635.00				
wardrobe (LC)-child	Ikea—'Axel' 100-wl00xd52xh202, melamine	199.00				
wardrobe-child	Ikea—'Pax'-white lamin.-w80xd58xh201	430.00				
chest of drawers (lg.) (LC)	Ikea—'Kurs'-white lamin.-w81xd39xh123-6-draw.	299.00				
chest of drawers (lg.)	Ikea—'Kurs'-pine veneered-w81xd39xh123-6-draw.	339.00	2.00	15	45.20	0.87
chest of drawers (sm.) (LC)	Ikea—'Kurs'-white lamin.-w81xd39xh78-3-draw.	199.00				
chest of drawers (sm.)	Ikea—'Bialitt' wood -w90xd53cmxh84-3 draw.	249.00				
bedside table (LC)	Ikea—'Bialitt' wood-w43xd38xh48	49.00				
bedside table	Ikea—'Reine'-lacq. wood-with drawer-w50d35h45					
		99.00	2.00	15	13.20	0.25
bedside table-child (LC)	Ikea—'Bialitt'. wood-w43xd38xh48	49.00				
bedside table-child	Ikea—'Reine'-lacq. wood-with drawer- w50d35h45	99.00				
Guest						
foam mattress (single)	Kmart	55.95				
sleeping bag	Kmart — Jackeroo Swagman 215x80cm	69.95				
cotton blanket (sing.)	Target	30.00				

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
flat sheet (single)	Kmart—'Dreamtex'	18.45				
pillow	Kmart — 'The Price Brand'-polyester fill	4.75				
Outdoor/Garden						
garden table	BBC—'Nevada'-resin	49.95				
garden chair	BBC—'Venice'-resin	10.95				
patio umbrella	Target—'Shoreline'	39.95				
OtherFurn.(n.e.c.)						
folding table	Kmart—trestle- 180cm x 75-PVC/steel frame	98.00	1	15	6.53	0.13
folding chair	Kmart—'PVC'/steel frame	19.95	2	15	2.66	0.05
desk (child)	Ikea—'Erik/Einar'-lamin.-L118xW58xH72	69.00				
desk chair	Freed.Furn.—'Pymont'	130.00				
table/chairs (sm.child)	Ikea — 'Arta' lacq. pine-table + 2 chairs	49.00				
bookcase (sm.)	Ikea—'Billy'-w80xd28xh 106	99.00				
bathroom mirror	Kmart—'Garmond'-vanity mirror-plastic frame	19.98	1	15	1.33	0.03
Maintenance						
carpet cleaning (MBA)	1 bed unit/public housing (H ₅)	55.00	1	4	13.75	0.26
(MBA)	2 bed unit/public housing (H ₆)	75.00				
(MBA)	2 bed house	85.00				
(MBA)	3 bed house/3 bed unit	100.00				
furnishings cleaning (MBA)	two seater lounge	20.00	1	6	3.33	0.06
(MBA)	three seater lounge	50.00				
carpet cleaning (LC)	1 bed unit	35.00				
(LC)	2 & 3 bed unit/public housing (H _{7e})	35.00				
(LC)	two bed house	35.00				
(LC)	three bed house/public housing	40.00				
furnishings cleaning (LC)	two seater lounge	20.00				
(LC)	three seater lounge	50.00				
HOUSEHOLD LINEN & SOFT FURNISH.						
Table, Kitch., Laund.						
tablecloth (sm.)	Kmart—cotton/poly./flannel- 178cm dia.	7.10	1	4	1.78	0.03
tablecloth (lg.)	Kmart—Table Manners'- 150x270cm	28.00	1	4	7.00	0.13
tea towels-set of 4	Kmart — The Price Brand'	3.30	2	4	1.65	0.03
hand towel	Kmart—'Cottage Kitchen'	2.45	4	4	2.45	0.05
apron	Kmart — 'popover'-cotton/polyester	9.35	1	5	1.87	0.04
oven mitt	Kmart—'Cottage Kitchen'-double mitt	4.75	1	3	1.58	0.03
ironing board cover (MBA)	Kmart—cotton/foam underlay	7.95	1	1	1.00	
ironing board cover (LC)	Woolworths — 46cm wide	2.12				
peg bag	Kmart—fabric	2.98	1	5	0.60	0.01
laundry bag	Kmart—(for washing delicates)	2.95	1	2	1.48	0.03
Bedroom Linen, etc.						
pillow	Kmart— 'The Price Brand'-polyester fill	4.75	4	5	3.80 '	0.07
doona (single)	Kmart—'Dreamtex'-polyester fill	29.95				
doona (double)	Kmart — 'Dreamtex'-polyester fill	37.95				
doona (queen)	Kmart—'Dreamtex'-polyester fill	42.00	1	10	4.20	0.08
doona cover (single)	Kmart — 'Country Living'+pillow case	49.00				
doona cover (double)	Kmart — 'Country Living'+2 pillow cases	59.00				
doona cover (queen)	Kmart—'Country Living'+2 pillow cases	69.00	2	9	15.33	0.29
pair sheets (king single)	Target — flat/fitted + 1 pillow case	45.00				
pair sheets (single)	Kmart — 'Dreamtex'-flat/fitted+1 pillow case	24.95				
pair sheets (double)	Kmart-'Dreamtex'-flat/fitted+2 pillow cases	39.95				

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
pair sheets (queen)	Kmart—'Dreamtex'-flat/fitted+2 pillow cases	40.95	2	9	9.10	0.17
thermal blanket	Target — cotton-double bed	40.00	i	15	2.67	0.05
thermal blanket	Target — cotton-single bed	30.00				
cushion	Kmart — 'Good Living'-41cmx41cm	11.25	2	5	4.50	0.09
Towels, etc.						
bath towel	Kmart — 'Dickies Gold'	15.95	4	4	15.95	0.31
hand towel	Kmart — 'Dickies Gold'	7.45	4	4	7.45	0.14
beach towel	Kmart—'Waves'	19.95	2	6	6.65	0.13
bath mat	Kmart—'Dreamtex'-rubber-backed	24.95	2	4	12.48	0.24
washer	Kmart—'Dickies Gold'	3.95	4	1	15.80	0.30
shower curtain	Target—nylon	17.50	1	5	3.50	0.07
Other Furnishings & Ornaments						
waste paper basket	Woolworths — plastic	1.59	1	3	0.53	0.01
lamp base	Kmart — 'Silkhands'-ceramic	19.95	3	15	3.99	0.08
lamp shade (table)	Kmart—'Silkhands'	7.95	3	10	2.39	0.05
lamp shade (overhead).	Kmart—'Silkhands'	7.95				
standard lamp	Target—'Mood'-metal	59.00	1	15	3.93	0.08
desk lamp	Kmart — 'Horizon'-flexible neck-plast. shade	21.98				
overhead light fitting	Kmart — kitchen/bathroom- 15cm round-glass	5.95				
overhead light fitting	Kmart—living/hall-20cm-glass	12.95				
mirror (wall)	Kmart — 'Garmond'-36cmx46cm	19.98	1	15	1.33	0.03
mirror (wardrobe)	Target—timber frame, 60cmx 1.5m (tape included)	44.45				
vase	Kmart—'Vinciana'-glass-23cm	9.98	2	6	3.33	0.06
floor mat	Kmart — 151x95 cm, nylon pile	23.95				
door mat	Kmart—coir	5.99	1	10	0.60	0.01
Sub-total					482.89	9.24
TABLEWARE						
dinner service	Kmart — 20pc-setting for 4	23.95	1	10	2.40	0.05
mug	Kmart—stoneware	2.98	6	3	5.96	0.11
mug	Woolworths	0.99				
egg cups (4)	Kmart—plastic-set	1.98	I	5	0.40	0.01
large glasses (4)	Kmart—'Metro Tavern'-set	5.98	1	6	1.00	0.02
small glasses (6)	Kmart—'Metro'-tumblers-set	4.98	1	4	1.25	0.02
wine glasses (6)	Kmart — 'Crown Classic'-set	14.95	1	6	2.49	0.05
glass water jug	Kmart	4.95	1	10	0.50	0.01
milk jug (sm)	Target—earthenware	4.95	1	10	0.50	0.01
sugar bowl	Target—earthenware	4.95	1	10	0.50	0.01
dessert/cereal bowl	Target—earthenware	4.95	4	10	1.98	0.04
dessert/cereal bowl	Woolworths — ceramic	1.99				
set of cutlery	Kmart — 'BIPA'-24pc+stand-setting for 6	14.98	1	17	0.88	0.02
salad bowl	Kmart — wooden-30cm	3.95	1	3	1.32	0.03
salad servers	Kmart—plastic	3.25	1	15	0.22	0.00
teapot (sm.)	Kmart — ceramic-460ml	4.98	1	8	0.62	0.01
teapot (lg.)	Kmart — ceramic- 1,050ml	7.98		8	0.00	-
coffee plunger (sm.)	Kmart — 'Metro' -glass/chrome-3-cup	14.95	1	6	2.49	0.05
coffee plunger (sm.)	Woolworths—6cup	8.99				
coffee plunger (lg.)	Kmart — 'Metro'-glass/chrome-6-cup	29.95				
table mat	Kmart — 'Cottage Kitchen'-oval-fabric	3.75	4	4	3.75	0.07
table mat (child)	Kmart—pvc	1.15				

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
cork mats	Kmart—set of 3-round	8.98	1	5	1.80	0.03
meat serving dish	Kmart — ceramic-oval platter-44cm	16.95	1	10	1.70	0.03
serving dish	Kmart—ceramic	18.00	1	10	1.80	0.03
COOKWARE						
saucepans: -	Kmart — 6 pc. cookware set-'Chef-st. steel: - 1x14cm saucepan-lit 1x16cm saucepan- 1.3lt 1x18cm saucepan-21t 1x24cm stockpot-4.5lt 1x24cm frypan 1 x 18cm steamer insert	129.00	1	15	8.60	0.16
frying pan	Kmart—30cm-non-stick	26.95	1	8	3.37	0.06
large stockpot	Kmart—7.6lt-aluminium	17.98	1	15	1.20	0.02
small saucepan	Kmart—st.steel	11.98	1	15	0.80	0.02
baking dish	Kmart—'Country Bake'-non-stick	7.48	2	12	1.25	0.02
baking tray	Kmart — 'Country Bake'-non-stick	5.48	1	12	0.46	0.01
casserole (oval)	Kmart—with lid-2.9lt-glass	12.78	1	15	0.85	0.02
" (round)	Kmart—withlid-1.91t-glass	7.75	1	15	0.52	0.01
cake pan (round)	Kmart—non-stick-20cm	4.68	1	12	0.39	0.01
" " (square)	Kmart—non-stick	2.48	1	12	0.21	0.00
" (loaf)	Kmart—non-stick-22cmx11cm	2.48	1	12	0.21	0.00
spring-form cake pans	Kmart—set of 3	7.98	1	12	0.67	0.01
quiche dish	Kmart—ceramic	8.78	1	15	0.59	0.01
cooling rack	Kmart—st.steel	2.95	1	12	0.25	0.00
egg rings	Kmart—set of 3	2.45	1	15	0.16	0.00
KITCHENWARE-n.e.c.						
cake decorating set	Kmart—6pc-plastic	2.35	1	15	0.16	0.00
pastry brush	Kmart	1.98	1	2	0.99	0.02
pastry/cookie cutters	Kmart—3 shapes-st.steel-plastic handles	3.25	1	15	0.22	0.00
rolling pin	Kmart—wooden	5.28	1	12	0.44	0.01
egg beater	Kmart—st. steel	7.45	1	15	0.50	0.01
flour sifter	Kmart—st. steel	5.95	1	15	0.40	0.01
scrapers	Kmart — set of 2-plastic	1.98	1	10	0.20	0.00
egg slice	Kmart — 'Metalex'-st. steel-plastic handle	4.95	1	15	0.33	0.01
draining spoon	Kmart — 'Metalex'-st. steel-plastic handle	4.95	1	15	0.33	0.01
soup ladle	Kmart—'Metalex'-st. steel-plastic handle	4.95	1	15	0.33	0.01
potato masher	Kmart—'Metalex'-st. steel-plastic handle	5.95	1	15	0.40	0.01
serving spoon	Kmart—'Metalex'-st. steel-plastic handle	4.95	1	15	0.33	0.01
wooden spoons	Kmart — set of 3 - 2 spoons, 1 spatula	5.28	1	5	1.06	0.02
egg slice	Woolworths — Chef Craft-st steel/plastic	0.99			-	
draining spoon	Woolworths—Chef Craft-st steel/plastic	0.99			-	
soup ladle	Woolworths—Chef Craft-st steel/plastic	0.99			-	
potato masher	Woolworths — Chef Craft-st steel/plastic	0.99			-	
serving spoon	Woolworths — Chef Craft-st steel/plastic	0.99			-	
wooden spoons	Woolworths—pkt3	0.79			-	
mixing bowls	Kmart — set of 3-plastic	2.45	1	5	0.49	0.01
chopping board (sm.)	Kmart—polythene	4.98	1	5	1.00	0.02
" (lg.)	Kmart—polythene	5.98	1	5	1.20	0.02
measuring set	Kmart—plastic-9pc:- 4 spoons. 4 cups. 1ltjug	7.95	1	10	0.80	0.02
tray	Kmart—wooden-rectangular	4.95	2	10	0.99	0.02

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
knives & knife block	Kmart—set of 6	29.98	1	25	1.20	0.02
carving knife	Messermeister5025-8-(Dec96)	38.00	1	25	1.52	0.03
carving fork	Kmart—'Metalex'-st.steel-plastic handle	3.95	1	15	0.26	0.01
can opener	Kmart—metal	1.28	1	5	0.26	0.00
garlic crusher	Kmart—st.steel	2.95	1	15	0.20	0.00
potato peelers	Kmart—set of 3	1.45	1	5	0.29	0.01
corkscrew	Kmart	6.95	1	12	0.58	0.01
tea strainer	Kmart—sm.sieve-metal mesh	1.35	1	5	0.27	0.01
tongs	Kmart—metal	1.28	2	5	0.51	0.01
kitchen scissors	Kmart—plastic handles	2.95	1	12	0.25	0.00
lemon squeezer	Kmart—plastic+jug	3.45	1	5	0.69	0.01
pepper & salt	Kmart—pepper mill/salt shaker set-plastic	7.95	1	10	0.80	0.02
grater	Kmart—metal-conical-non-stick	3.68	1	7	0.53	0.01
sieve (lg.)	Kmart—metal mesh	4.65	1	7	0.66	0.01
" (sm.)	Kmart—metal mesh	3.98	1	7	0.57	0.01
colander/strainer	Kmart—metal mesh	6.98	1	7	1.00	0.02
plate drainer	Kmart—plastic-coated wire	3.98	1	5	0.80	0.02
cutlery drainer	Kmart—plastic	1.78	1	5	0.36	0.01
cutlery tray	Kmart—plastic	4.85	1	10	0.49	0.01
kitchen scales	Kmart—lg.-10kg	19.98	1	15	1.33	0.03
thermos flask	Kmart—1lt	19.98	1	10	2.00	0.04
Esky	Hard warehouse—27 lt	49.95	1	15	3.33	0.06
storage set	Kmart—'Willow'-plastic- 10pc:- 2x200ml-round 3x700ml-rectangular 2x1.5lt-rectangular 2x1.91t-rectangular 1x10lt-rectangular	24.95	1	12	2.08	0.04
lunch box	Kmart— 1.25lt-plastic-rectangular	3.98	2	10	0.80	0.02
vegetable rack	Kmart—plastic-stackable	2.95	2	10	0.59	0.01
plastic tumbler	Coles—Lion King	3.49			-	
Sub total					82.49	1.58
CLEANING UTENSILS						
squeegee mop	Kmart—'Sabco'	14.95	1	5	2.99	0.06
mop refill	Kmart—'Oates' 2 & 4 hole multi-fit	5.75	4	1	23.00	0.44
soft broom head	Kmart—'The Price Brand'-vinyl	4.95	1	3	1.65	0.03
broom handle	Kmart—'Sabco'	3.95	1	12	0.33	0.01
hard broom	Kmart—'Queen'-5-tie	9.95	1	8	1.24	0.02
dust pan & brush	Kmart—'Oates'	4.75	1	4	1.19	0.02
squeegee glass cleaner	Kmart—rubber,nylon.net	4.95				
lambswool duster	Kmart—'Oates'	6.99	1	4	1.75	0.03
lambswool duster	Woolworths	2.51	0	4	0.00	0.00
1g.scrubbing brush	Kmart—'Oates'	2.75	1	4	0.69	0.01
shoe brush	Kmart—'Oates'	1.40	2	7	0.40	0.01
bottle brush	Kmart—'Sabco'	2.15	1	7	0.31	0.01
washing-up brush	Kmart—'Sabco'	2.75	3	1	8.25	0.16
toilet brush & holder	Kmart—'Oates'	4.25	1	7	0.61	0.01
plastic sponges	Coles—'Savings'-pkt 5	1.39	3	1	4.17	0.08
Chux wipers	ASI/Coles—'Chux Superwipes'-reg.-pkt 10	4.35	3	1	13.05	0.25
scourers	ASI/Coles—'Scotchbrite'-pkt4	1.88	2	1	3.76	0.07
steel wool	Coles—'Scotchbrite'-pkt 8	2.29	1	1	2.29	0.04

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
L. C.		0	-	-	-	-
plastic sponges	Coles— 'Savings'-pkt 5	1.39	0	1	-	-
Chux wipers	Coles— 'Savings'-pkt 10	0.93	0	1	-	-
pot scourers	Coles— 'Savings'-pkt 5	0.35	0	1	-	-
steel wool	Coles— 'Savings'-pkt 10	0.60	0	1	-	-
H. H. DURABLES-n.e. c.		0	-	-	-	-
kitchen tidy bin	Kmart— 'Nylex'-33lt-plastic-flaptop	13.98	1	4	3.50	0.07
garbage bin	Kmart— 'Willow'-75lt-plastic	14.98	1	2	7.49	0.14
bucket	Kmart— 10lt-plastic	0.98	1	2	0.49	0.01
laundry basket	Kmart— 'Sabco'-linentidy-plastic	19.98	1	10	2.00	0.04
wash basket	Kmart—cane-oval	6.98	1	4	1.75	0.03
clothes horse	Kmart— 'Greer' airer-20 rails-plastic-coated	25.75	1	10	2.58	0.05
coat hangers (10)	Kmart— 'The Price Brand'-plastic-coated	2.98	4	10	1.19	0.02
pegs (48)	Kmart— 'Reva'-spring-plastic	3.95	2	2	3.95	0.08
sink plug	Kmart— 'Chefmulti-fit-rubber	2.25	2	20	0.23	0.00
bath plug	Kmart— 'Chefmulti-fit-rubber	2.25	1	20	0.11	0.00
light bulb	Kmart—allwattage	0.89	8	1	7.12	0.14
ironing board	Kmart— 'The Price Brand'- 122cmx37cm	33.95	1	20	1.70	0.03
bathroom scales	Kmart— 'Soehnle'	46.95	1	12	3.91	0.08
toothbrush holder	Kmart—ceramic(4holes)	6.95	0	6	-	-
BBQ (portable)	Kmart— 'Jackeroo', M2, 2 burner gas	198.00	0	15	-	-
BBQ gas bottle	Kmart— 'Jackeroo'-9kg	54.95	0	15	-	-
gas bottle refill	local garage	17.80	0	1	-	-
extension lead	Kmart—7m	5.98	1	10	0.60	0.01
double adaptor	Kmart	2.88	3	10	0.86	0.02
power board	Kmart—4-outlet- 1.8m	10.18	1	10	1.02	0.02
torch	Woolworths—+2Eveready batteries	5.88	1	5	1.18	0.02
Miscellaneous Commodities		0	0	-	-	-
hot water bottle	Kmart— 'Astra'	2.95	1	5	0.59	0.01
suitcase	Kmart— 'Viscount'. 'Astra', 60 cm. PVC viny/poly	29.95	1	10	3.00	0.06
duffle bag	Kmart— 'Tosca', large, crinkle nylon	34.95	1	10	3.50	0.07
H. H. NON-DURABLES		0	0	-	-	-
dishwashing detergent	Coles— 'Down to Earth'-500ml	1.99	9	1	17.91	0.34
washing powder	ASI— 'Surf'-lkg	0	1	0.00	0.00	0.00
washing powder	Coles— 'Saving' 4 kgs	4.60	4	1	18.40	0.35
laundry soap	Coles — 'Preservene'-500g	1.42	1	1	1.42	0.03
liquid soap	Coles— 'Soft Wash'-250ml (refill-S2. 01)	2.95	2	1	5.90	0.11
powder cleanser	Coles— 'Bon Ami'-500g	1.74	4	1	6.96	0.13
cream cleanser	Coles— 'Ajax'-creme cleanser-750ml	2.41	3	1	7.23	0.14
floor cleaner	Coles— 'Selleys'	2.69	2	1	5.38	0.10
oven cleaner	ASI/Coles— 'Big Boy'-400g	2.71	1	1	2.71	0.05
disinfectant	ASI/Coles— 'Pine O'Clean'-500ml	1.99	4	1	7.96	0.15
glass cleaner	ASI/Coles— 'Windex'-500ml (refill)	2.39	1	1	2.39	0.05
bleach	Coles— 'Farmland'- 1.25 lt	1.55	1.5	1	2.33	0.04
wool wash	Woolworths— 'Country Homestead'- 1.25kg	4.83	4	1	19.32	0.37
fabric softener	Coles— 'Comfort'-1lt	2.91	8	1	23.28	0.45
soaker	Coles— 'Preen'-750g	4.24	4	1	16.96	0.33
spray-on stain remover	Coles— 'Sard Wonder Spray'-500ml	3.50	8	1	28.00,	0.54
lavatory cleaner	Coles— 'Harpic'-500ml	2.67	4	1	10.68	0.20
carpet shampoo	ASI/Coles— 'Karpet' carpet powder-500g	6.75	1	1	6.75	0.13
furniture polish	ASI/Coles— 'Mr Sheen'-200g	3.34	2	1	6.68	0.13

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
shoe polish	Coles—'Kiwi'-50g	1.53	4	1	6.12	0.12
greaseproof paper	Coles—'Farmland'-30m	1.69	14	1	23.66	0.45
paper towels	Coles—'Savings'-pkt2	1.50	5	1	7.50	0.14
paper napkins	Coles—'Deeko' pkt50	3.71	1	1	3.71	0.07
toilet paper	ASI/Coles—'Kleenex'-pkt6	4.88	13	i	63.44	1.22
clingwrap	ASI/Coles—'Gladwrap'-60m	3.08	2	1	6.16	0.12
foil	Coles—'Savings'-10m	1.20	3	1	3.60	0.07
plastic sandwich bags	Coles— 'Oso'-pkt 200	2.79	1	1	1.00	0.02
freezer bags	Coles—'Savings'-pkt80	0.49	1	1	1.00	0.02
garbage bags	ASI/Coles— 'Glad Tuff Stuff -pkt 20	3.99	3	1	11.97	0.23
kitchen tidy bin liners	Coles— 'Farmland'-pkt 20	1.89	5	1	9.45	0.18
matches	Woolworths—'Redheads'	0.85	1	1	0.85	0.02
candles	Woolworths—pkt6-plainwhite	0.74	1	1	0.74	0.01
batteries—D	Woolworths—'Eveready'-pkt2	2.68	1	1	2.68	0.05
batteries—AA	Woolworths—'Duracell'-pkt10	10.96	0	1	0.00	0.00
rubber gloves	Coles—'Savings'- 1 pair	0.38	12	1	4.56	0.09
insecticide	Coles—'Mortein'-250g	3.79	2	1	7.58	0.15
insect repellent	ASI/Coles— 'Aerogard'-150g	4.09	1	1	4.09	0.08
cockroach baits	Coles — 'Mortein Superbaits'-pkt 12	6.88	1	1	6.88	0.13
turps	Coles—'Glendale'-1lt	1.96	1	1	1.96	0.04
methylated spirit	Coles—'Glendale'-1lt	2.45	1	1	2.45	0.05
ball of string	Woolworths— 'Tapex'. 60 metres	0.99	1	1	0.99	0.02
children's party		0	0			
patty pans (paper)	Coles—'Deeko'-pkt 100 (patterned)	2.45	0	1	0.00	0.00
paper napkins	Coles—'Deeko'-pkt50(coloured)	3.71	0	1	0.00	0.00
paper plates (lg.)	Coles—'Deeko'-pkt8(patterned)	2.36	0	1	0.00	0.00
paper plates (sm.)	Coles—'Deeko'-pkt 20 (patterned)	2.52	0	1	0.00	0.00
paper bowls	Coles—'Deeko'-pkt 10 (patterned)	1.88	0	1	0.00	0.00
plastic glasses	Coles—'Lily'-pkt 20 (clear)	1.75	0	1	0.00	0.00
plastic tablecloth	Coles—'Starlight' 150cmx230cm	23.95	0	4	0.00	0.00
plastic forks	Woolworths—pkt 24	0.78	0	1	0.00	0.00
plastic spoons	Woolworths — 'Home Brand'-pkt 10	0.29	0	1	0.00	0.00
birthday candles	Coles—'Unique'-pkt12	0.59	0	1	0.00	0.00
balloons	Coles—'Alpen'-pkt 100	4.10	0	1	0.00	0.00
greeting cards	Coles — pack 10 (no message)	4.50	1	1	4.50	0.09
greeting paper	Coles — pack 2x5 metre roll	4.95	1	1	4.95	0.09
Christmas decorations					0.00	
tree and stand	Coles\—182 cm artificial	20.00	1	8	2.50	0.05
tree decorations	Coles— bells, garlands, tinsel	14.00	1	8	1.75	0.03
bon-bons	Coles — pack of 12	9.99	1	1	9.99	0.19
Christmas cards	Coles — pack of 10	3.95	2	1	7.90	0.15
Christmas tags	Coles — pack of 20	3.00	1	1	3.00	0.06
Christmas paper	Coles — pack (4 rolls x 5 metres)	3.50	1	i	3.50	0.07
balloons	Coles — pack of 25	3.40	1	1	3.40	0.07
Sub-total					514.54	9.87
H. H. NON-DURABLES						
dishwashing detergent	Coles—'Savings'-500ml	0.80				
washing powder	Coles—'Savings'-4kg	4.60				
laundry soap	Coles—'Savings'-500g	0.86				
powder cleanser	Coles—'Savings'-500g	0.99				
cream cleanser	Coles—'Savings'-500ml	0.83				

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
floorcleaner	Coles— 'Selleys'	2.69				
oven cleaner	Coles— 'Savings'-300g	1.83				
disinfectant	ASI/Coles—'Pine O'Clean'-500ml (sale price)	1.79				
glass cleaner	ASI/Coles—'Windex'-500ml (refill-sale price)	2.34				
bleach	Coles—'Savings'-2lt	1.19				
wool wash	Woolworths—'HomeBrand'- 1.25lt	1.79				
fabric softener	Woolworths—'HomeBrand'-2lt	0.76				
soaker	Coles — 'Preen'-750g	4.24				
spray -on stain remover	Coles — 'Savings' - 350 gms	2.10				
lavatory cleaner	Coles—'Harpic'-500ml	2.67				
carpet shampoo	ASI/Coles — 'Karpet' carpet powder-500g	6.75				
furniture polish	Coles—'Savings'-400g	1.60				
shoe polish	Coles— 'Kiwi'-50g	1.53				
greaseproof paper	Coles—'Farm land'-30m	1.69				
paper towels	Coles—'Savings'-pkt2	1.50				
paper napkins	Coles — 'Savings'-pkt 100 (white, plain)	0.96				
toiletpaper	Coles— 'Safe'-pkt 6	2.97				
clingwrap	ASI/Coles—'Gladwrap'-60m	3.08				
foil	Coles—'Savings'- 10m	1.20				
garbage bags	ASI/Coles—'Glad Tuff Stuff'-pkt20	3.99				
kitchen tidy bin liners	Coles — 'Farmland'-pkt 20	1.89				
matches	Woolworths—'Redheads'	0.85				
candles	Woolworths—pkt 6 plain white	0.74				
batteries—DD	Woolworths—'Eveready', pkt2	2.68				
batteries—AA	Woolworths—'Duracell' pkt 4	6.14				
rubber gloves	Coles—'Savings'- 1 pair	0.38				
insecticide	Coles— 'Savings'-300g	1.76				
insect repellent	ASI/Coles— 'Aerogard'- 150g	4.09				
cockroach baits	Coles— 'Mortein Superbaits'-pkt12	6.88				
turps	Coles—'Glendale'-1lt	1.96				
methylated spirit	Coles— 'Glendale'- 1lt	2.45				
ball of string	Woolworths— 'Tapex', 60 metres	0.99				
APPLIANCES	<i>Retravision (RT)</i>					
stove—gas	RT/'Westinghouse'— GUF502R	699.00				
stove—electric	RT/'Westinghouse'— PAF501R	629.00				
fridge—520L	RT/'Sharp'— SJ51GWH	1,429.00				
fridge—400L	Hi/'Samsung'— SRG-V43	1,149.00	1	15	76.60	1.47
fridge—220L	RT/'Westinghouse'— RE221G-2	599.00				
hot water system (HWS)	BBC— 'Rheem'. model 101/250, electric	594.00				
(only home owners/purch.)	BBC— 'Rheem'. model 'Optima' 401/250. electric	809.00				
	BBC— 'Rheem'. model 'Optima' 401/315. electric	817.00				
HWS	installation	120.00				
food processor	RT/'Philips'— HR2830-P	89.00	1	15	5.93	0.11
blender	RT/'Breville'— BLR3G	59.00	1	15	3.93	0.08
microwaveoven—28L	RT/'Sharp'— R3C59	269.00	1	15	17.93	0.34
electric kettle	Kmart— 'Tiffany'- 1. 7lt	24.99	1	5	5.00	0.10
toaster	RT/'Black & Decker'— ET50	39.00	1	10	3.90	0.07
kitchen clock (electric)	Kmart— 'The Price Brand'	12.95	1	15	0.86	0.02
bedroom clock/alarm	Kmart — 'The Price Brand'	16.95	1	15	1.13	0.02

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
washing machine—5 kg	RT/'Simpson'—'Esprit'	589.00	1	15	39.27	0.75
washing machine—7.5 kg	RT/Hoover—'Comander'	829.00				
clothes dryer—4.5kg	RT/Simpson—'Maxidry' 39547.E	329.00	1	15	21.93	0.42
elec. blanket— single	Kmart—'Sleepwarm'	39.00				
elec. blanket— double	Kmart—'Sleepwarm'	69.00				
elec. blanket— queen	Kmart—'Sleepwarm'	79.00	1	10	7.90	0.15
heater—elec.convec.-lg.	RT/Vulcan—'Diablo' 486001	279.00	1	15	18.60	0.36
heater—elec.convec.-sm.	RT/Goldair—'TurboConvector' 571	149.00	1	15	9.93	0.19
stream/dry iron	RT/Philips—'Comfort Plus' 210HD 1512	65.00	1	10	6.50	0.12
vacuum cleaner	RT/Panasonic—MC-4500	148.00	1	15	9.87	0.19
pedestal fan	RT/40cm—'Airmaster' TPA-4093-	69.00	1	15	4.60	0.09
sewing machine	Hurstville Sewing Centre Janome—'Mystyle' 20					
sewing 'box'	Woolworths—'Decor' Oblong 1.5 litre container	449.00				
cotton	Woolworths — 'Coates' polyester - 500 mtrs	2.20	1	10	0.22	0.00
sewing needles	Woolworths — 'Newey Craft' - 16	0.98	1	10	0.10	0.00
sewing machine needles	Woolworths—'Stich & Sew' - 10	0.98	1	3	0.33	0.01
scissors	Woolworths—'Stich & Sew' - 10	1.58				
pins	Woolworths—'Stich & Sew' - 10	1.89	1	5	0.38	0.01
buttons	Woolworths—'Stich & Sew' - 90	2.57	1	5	0.51	0.01
electric drill	Woolworths — 'Beutron' 30 (shirt/blouse buttons)	1.25	1	3	0.42	0.01
set of drill bits	Mitre 10—'Ryobi'	79.95	1	20	4.00	0.08
lawn mowing service	Thrifty-Link—'Sutton'- 21pc	32.95	1	20	1.65	0.03
lawn mower (petrol)	average price in HLGA	35.00				
fuel container	BBC — 'Victa' 160cc 2 stroke engine	488.00				
2 stroke fuel	BBC — 5 litre container for 2 stroke fuel	7.55				
mower parts	local garage - 5 litres	4.80				
mower service	BBC — spark plug, spare blade set	10.75				
GARDENING TOOLS (Gardening Tools not for households in units)	average price of service in HLGA	60.00				
garden spade - large	BBC—'Cyclone' 642807-wood. handle-D grip	36.00				
garden fork - large	BBC—'Cyclone' 630415-heavy duty	53.00				
hedge shears	BBC—N. B. L.-wavy blade-C6567W	39.00				
pruning shears	BBC—'Secateur-Gardena' G803-by-pass type	34.00				
hose-fittings	BBC—'Banksia'-30metre-premium	38.00				
hose reel trolley	Mitre 10—'Yates'	39.95				
sprinkler	BBC—'Gardena Waterwave' G965	60.00				
garden rake	BBC—'Banksia' metal fan	8.00				
watering can	BBC—'Yates' 9lt 26209	12.00				
small trowel	BBC—'Cyclone' 350mm 654589-wood. handle	10.00				
small fork	BBC—'Cyclone' 350mm 630071 -wood, handle	14.00				
gardening gloves	BBC—'Protector'-leather palm, cotton back	4.00				
Other Tools						
retractable knife	BBC—'Stanley' trim 99E	12.00	1	25	0.48	0.01
hacksaw	BBC—'Sandvik' 225S	38.00	1	25	1.52	0.03
pliers	BBC—'Orbi' 150mm-long nose	31.00	1	25	1.24	0.02
adjustable wrench	BBC—'Toledo' 150mm	29.00	1	25	1.16	0.02
hammer	BBC—'Plumb' 20oz-fibreglass handle	76.00	I	25	3.04	0.06
screwdriver set	Mitre 10—'Stanley'- 13pc	39.95	I	25	1.60	0.03

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
tape measure	Thrifty-Link—retractable-8m	7.95	1	15	0.53	0.01
step ladder	Mitre 10—'Bailey'-steel-1.8m	69.95				
step ladder (small)	Thrifty-Link—aluminium-2-step household	15.95	1	25	0.64	0.01
Sub-total					251.70	4.83
FLOOR COVERINGS						
carpet						
one-bed unit	9.7m @ \$89/m				863.30	
2-bed unit	15.3m @ \$89/m				1,361.70	
2-bed house	17.2m @ \$89/m				1,530.80	
3-bed house	26.9m @ \$89/m				2,394.10	
vinyl						
one-bed unit	4.3m @ \$35/m (3m wide)				150.50	
2-bed unit	3.45m @ \$35/m (3m wide)				120.75	
2-bed house	6.9m @ \$55/m (4m wide)				379.50	
3-bed house	4m @ \$35/m (3m wide)				140.00	
BLINDS, CURTAINS						
window—w1.85mxh1.5m	Freed.Furn.—'Calcutta'-rollup blind- 180x180				59.95	
window—w1.85mxh1.5m	Spotlight-continuous curtaining @ 7.95m(160cm drop)				29.42	
window—w0.91mxh1.5m	Freed.Furn.—'Calcutta'-rollup blind-90x 180				29.95	
window—w2. 1mxh 1.5m	holland blind (made-to-measure)				94.00	
window—w2mxh1.5m	holland blind (made-to-measure)				94.00	
window—w1.4mxh1.5m	holland blind (made-to-measure)				76.00	
window—w2.lmxh2.5m	Spotlight—continuous curtaining @ 8.95m(244cm drop)				37.60	
window—w2.1mxh1.5m	Spotlight—continuous curtaining @ 7.95m(160cm drop)				33.4	
window—w2.85xh2.5m	Spotlight—continuous curtaining @ 8.95m(244cm drop)				51.00	
window—w1.7xh1.4(bay)	Spotlight—'Caprice'-crossover@32.95 ea. x 3				98.85	
curtain rod	Spotlight — lacquered steel @ 2. 50 per metre				2.50	
curtain rod brackets	Freed.Furn.—metal- @ 8.50 per pair				8.50	
PETS						
dog						
tinned food	Wool worths— 'Chum'- 1.200g				1.67	
dry food	Woolworths—'Friskies'- 1. 5kg				2.53	
raw bones	butcher —1 pkt-4-5kg				8.00	
collar	Kmart—'Friskie' leather				13.95	
lead	Kmart— 'Valuepet',nylon				8.00	
water bowl	Coles—'Friskies'-plastic				4.75	
food bowl	Coles—'Friskies'-plastic				4.75	
insecticidal shampoo	Coles— 'Friskies'-375ml				5.71	
worming tablets	Coles—'Excelpet'- all wormer one dose				5.89	
heartworm capsules	Coles — 'St. Bernard' - 100 tabsx half tab daily				2.74	
council reg. fee	Hurstville Council—annual				4.00	
vet fees						
immun. booster shot	annual—AVA recommended				62.00	
neutering - male					170.00	
vet consult. fee					34.00	
kennel fees	average for Sydney Metropolitan area (daily)				13.00	

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
cat						
tinned food	Woolworths— 'Whiskas'-400g	0.97				
dry food	Woolworths—'Friskies Go-Cat'- 1kg	3.12				
raw chicken wings	butcher—1kg	3.50				
water/food bowl	Coles— 'Friskies'-plastic, double	2.68				
cat tray	Coles— 'Friskies'-plastic	7.24				
cat litter	Coles— 'Savings'-8kg	3.39				
flea collar	Coles— 'Excelpet'-8month	5.94				
insecticidal shampoo	Coles — 'St. Bernard flea powder, 250 gms	3.32				
worming tablets	Coles—'Excelpet', paste	4.97				
vet fees						
immun. booster shot	annual-AVA recommended	50.00				
neutering - male		75.00				
vet consult. fee		34.00				
School - fees/charges						
general fees	secondary schools (not for low cost)	77.00				
P&C contributions	secondary schools	21.00				
text books	secondary schools	51.00				
paper/photocopying	secondary schools	15.00				
computer disks	secondary schools	19.00				
assignment material	secondary schools	27.00				
elective subjects	secondary schools	44.00				
elective subjects	secondary schools	42.00				
fundraising	secondary schools	19.00				
school photos	secondary schools	21.00				
school camps	secondary schools	116.00				
school excursions	secondary schools	49.00				
sport (summer)	secondary schools	39.00				
sport (summer)	secondary schools	41.00				
school entertainment	secondary schools	33.00				
Primary schools	<i>for all 10 year olds</i>					
general fees	primary school (not for low cost)	73.00				
P&C contributions	primary school	16.00				
text books	primary school	43.00				
paper/photocopying	primary school	8.00				
computer disks	primary school	15.00				
assignment material	primary school	27.00				
elective subjects	primary school	59.00				
elective subjects	primary school	31.00				
fundraising	primary school	27.00				
school photos	primary school	19.00				
school camps	secondary schools	116.00				
school excursions	secondary schools	49.00				
sport (summer)	secondary schools	39.00				
sport (summer)	secondary schools	41.00				
school entertainment	secondary schools	33.00				
Infants school fees	<i>for all 6 year olds</i>					
entertainment/excursions	infants school	30.00				
		15.00				

APPENDIX 7.B: Detailed Household Goods and Services Budget for a Couple with No Children at the Modest but Adequate (MBA) Level, Private Renter, One Bed Unit (Continued)

Item	Description	Unit Price \$	Q'ty	Life time	Yearly Cost (\$)	Weekly Cost (\$)
school stationery						
ruler	Woolworths—plastic	0.28				
pencil case	Woolworths—plastic-31cm	1.87				
lead pencil	Woolworths—'Staedtler'-pkt3	0.75				
sharpener	Woolworths—'Staedtler'-metal	1.08				
rubber	Woolworths—pkt5	0.49				
biros	Woolworths — pkt 6-blue, black, red	0.99				
exercise book	Woolworths—96pp	0.42				
ring-binder folder	Woolworths	1.82				
hole-punched paper	Woolworths—foolscap-70pp	1.39				
home stationery						
writing pad	Woolworths — 'Homebrand' 100 leaf	1.45	3	1	4.35	0.08
envelopes	Woolworths — 'Cameron' 190x45 box of 100	2.18	2	1	4.36	0.08
biros	Woolworths — pkt 6-blue, black, red	0.99	2	1	1.98	0.04
ruler	Woolworths—plastic	0.28	1	4	0.07	0.00
lead pencils	Woolworths—'Staedtler'-pkt 3	0.75	4	1	3.00	0.06
computer paper	Woolworths — Reflex A4 500 sheets	5.79				
Telephone						
telephone (set)	Retravision—'Slim Line 15'	50.00	1	15	3.33	0.06
installation cost	Telstra—privaterenter	50.00	1	2	25.00	0.48
	public renter/owners/purchasers	50.00				
line rental	Telstra — 11.65 per month	139.18	1	1	139.18	2.67
<i>calls • weekly</i>	Telstra — 25 cent each local call					
1 adult households	HH1, HH4, HH5, HH12 (no discount)	182.49		1	-	-
2 adult households	HH2, HH6, H7, HH9 (15% discount applied)	310.24	1	1	310.24	5.95
2 adults + 14 yo boy	HH3, HH8, HH10, HH11 (15% discount applied)	465.35				
Telstra discount	for pensioner households	12.00				
Postage	all households-stamps	25.20	1	1	25.20	0.48
	parcels (250gms to 500gms)	2.80	3	1	8.40	0.16
	parcels (501gms to 1kg)	5.00				
Subscriptions/Fees	none					
Repair & maintenance of household appliances	1993 HES figures for repair and maintenance of household appliances (updated by the CPI to February 1997)		1	1	76.12	1.46
Sub-total					601.24	11.53
Household goods and services budget						
Total					1,931.9	37.05

APPENDIX 7.C: Costs of Hot Water Systems

Household Type	RHEEM Hot Water Systems ^(a)			
	Indoor model	Model No. ^(b)	Indoor model	Model No.
	Electric	Gas		
H ₁ Single female—35	2-bedroom unit	250 litre	101/250	135 30/135
H ₂ Two adults	2-bedroom house	250 litre	101/250	135 30/135
H ₃ Two adults — two children girl 6, boy 14	3 -bedroom house	315 litre	401/315	170 30/170
H ₄ Single parent — child 6	2-bedroom house	250 litre	401/250	170 30/135
H ₅ Aged female, 70	3-bedroom house	315 litre	401/315	170 30/170
H ₆ Aged couple — both 70	3-bedroom house	315 litre	401/315	170 30/170
H ₇ Two adults — one child, age 6	3-bedroom house	315 litre	401/315	170 30/170
H ₈ Two adults — one child, age 14	3-bedroom house	315 litre	401/315	170 30/170
H ₉ Two adults — one child, age 3	3-bedroom house	315 litre	401/315	170 30/170
H ₁₀ Two adults — three children, ages 3, 6 and 14	3-bedroom house	315 litre	401/315	170 30/170
H ₁₁ Two adults — four children, ages 3, 6, 10 and 14	3-bedroom house	315 litre	401/315	170 30/170
H ₁₂ Single parent — 2 children, ages 6 and 10	3-bedroom house	315 litre	401/315	170 30/170

- Notes:** (a) Advice from RHEEM is to install a hot water system to suit the 'size' of the dwelling (i.e. the number of bedrooms).
(b) For reasons of safety and economy the more expensive Optima model electric HWS (with an adjustable thermostat control) was allocated to households with young children or older people.

Costs of Hot Water Systems from BBC Hardware Store, February 1997

RHEEM Hot Water System	Electric (\$)	Gas (\$)	Installation (\$)	charge ^(a)	Total (\$)
Model					
101/250	594	-	120		714
401/250	809	-	120		929
401/315	817	-	120		937
300/135	-	638	120		758
300/170	-	742	120		862

- Note:** (a) Installation costs of a replacement HWS using both a plumber and an electrician is estimated to be, on average, \$60 per tradesman.

APPENDIX 7.D: Assumed Sizes of Windows by Dwelling Type, Number of Windows, Type of Covering, Room Types and Costs

Dwelling	Size/metres (Width Height)	Number of windows	Type of covering	Type of room	Cost per item \$	Total Cost \$
1-bedroom unit	1.85 x 1.5	2	holland blind	bedroom	59.95	119.90
	1.85x 1.5	2	holland blind	kitchen	59.95	119.90
	2.1 x2.5	1	continuous curtaining 244cm drop	living room	8.95/mtr x 4. 2 ^(a)	37.60
2-bedroom unit	1.85 x 1.5	1	holland blind	bedroom x 2	59.95	119.90
	1.85x 1.5	1	holland blind	kitchen	59.95	59.95
	2.1 x2.5	1	continuous curtaining 244cm drop	living room	8.95/mtr x 4. 2 ^(a)	37.60
3-bedroom unit	1.85 x 1.5	1	holland blind	bedroom x 2	59.95	179.85
	2.1 x 1.5		holland blind	bedroom	94.00	94.00
	1.85x 1.5	1	holland blind	kitchen	59.95	59.95
	2.1 x2.5	1	continuous curtaining 244cm drop	living room	8.95/mtr x 4. 2 ^(a)	37.60
2-bedroom house	4.0 x 1.5	1	Continuous curtaining 160cm drop	living room	\$7.95/mtr x 8 ^(a)	63.60
	1.85x 1.5	2	holland blind	bedroom	59.95	59.95
	0.9 x 1.5		hollandblind	bedroom	29.95	29.95
	1.85 x 1.5	1	holland blind	kitchen	59.95	59.95
	1.85x 1.5	1	holland blind	sleep out	59.95	59.95
	1.85x 1.5	1	holland blind	breakfast room	59.95	59.95
3-bedroom house	1.85x 1.5	1	continuous curtaining 160cm drop	living	7.95/mtr x 3.700	29.42
	1.85x 1.5	1	holland blind	bedroom	59.95	59.95
	1.85x 1.5	1	holland blind	kitchen	59.95	59.95
	0.9 x 1.5	1	holland blind	bedroom x 2	29.95	59.90
2-bedroom unit	2. x 1.5	1	holland blind	bedroom x 2	94.00	188.00
	0.9 x 1.5	1	holland blind	kitchen	29.95	29.95
	2.85x2.5	1	continuous curtaining 244cm drop	living room	8.95/mtr x 5. 7 ^(a)	51.00
3-bedroom unit	2x1.5	1	holland blind	bedroom x 2	94.00	188.00
	0.9 x 1.5		holland blind	bedroom	29.95	29.95
	0.9 x 1.5		holland blind	kitchen	29.95	29.95
	2.85x2.5	1	continuous curtaining 244cm drop	living room	8.95/mtr x 5. 7 ^(a)	51.00
pensioner bedsit (single person)	1.4 x 1.5	1	holland blind	bedroom	76.00	76.00
	2.1 x 1.5	1	continuous curtaining 160cm drop	living room	7.95/mtr x 4. 2 ^(a)	33.40
pensioner accommodation (couple)	1.4 x 1.5	2	holland blind	bedroom	76.00	152.00
	1.4 x 1.5	1	continuous curtaining 160cm drop	living room	7.95/mtr x 2. 8 ^(a)	22.26

Note: (a) Curtain quantity has been calculated as equal to twice the width of the window.

APPENDIX 7.E: Complete Listing of Household and Cleaning Products Included in the Households Goods and Services Budgets

tea towels, kitchen hand towels	1 set per person
dinner service, glassware	2 in households of 3 or more persons, as provision for guests—halve lifetime for households with children
glassware (3 kinds), dessert/cereal bowls	double the quantity and halve the lifetime for households with children
mugs	add 2 for each person and halve the lifetime for households with children
mop refills	4 a year for every household
plastic sponges (3), Chux wipers (3), scourers (2), steel wool (1)	quantity as stated for 1 and 2 persons; plus 50 per cent for 3 and 4 persons; double for 5 and 6 persons
laundry basket	1 for each occupied bedroom—reduced lifetimes according to the number of children
coat hangers	2 pkts of 10 per person
Pegs	one pkt of 48 for every two people
light bulbs	one for each lamp, one for each overhead light - a year's lifetime
double adaptors	2 for each person
power board	2 for households with 14-year-old
detergent	9 x 500ml/year for 1 & 2 persons; 13.5 (i.e. 50 per cent higher) x 500ml for 3 and 4 persons; 18 (i.e. double) x 500ml for 5 and 6 persons
laundry powder	8kg per person per year; single person, 1kg pkt; everyone else, 4kg pkt (Coles-'Savings'-\$4.60) the same for all households
laundry soap, matches, powder cleanser, cream cleanser, floor cleaner, oven cleaner, disinfectant, bleach, lavatory cleaner, furniture polish, cockroach baits	used in kitchen—add one for 1 and 2 children; add two for 3 and 4 children
liquid soap	more for houses because house windows are more accessible than the windows of home units—1 for one-bed unit; 1.5 for 2-bedroom unit; 2 for 3-bedroom unit; 3 for 2-bedroom house; 4 for 3-bedroom house
glass cleaner	2 per person per year 4lt per person per year
wool wash	multiply single person allocation (2) by number of persons
fabric softener	multiply single person allocation by number of persons
soaker	double for children
spray-on stain remover	multiply by number of persons (except 3-year-old, and unemployed and retired)
carpet shampoo	
shoe polish	

APPENDIX 7.E (Continued): Complete Listing of Household and Cleaning Products Included in the Households Goods and Services Budgets (continued)

toilet paper	1.5 rolls per person per fortnight, i.e. 6.5 pkts (of six) per person per year—the 'MBA' single woman and working couple have Kleenex, others have the cheaper brand (Coles, 'Safe', pkt 6 - \$2.97)
greaseproof paper	(rather than Gladwrap for lunches) assume everyone takes lunch to work, school or day care (except the unemployed and retired)—7 rolls per adult and child, since children go to vacation care and 14-year-old would have lunch prepared—for unemployed and retired, 2 per person per year
paper towels	5 pkts per year, plus one extra for each child
Gladwrap	2 pkts for 1 person—add 0.5 for each extra person
foil	3 pkts for 1 and 2 persons—add 0.5 for each extra person
garbage bags	2 pkts for single person working full-time; 3 pkts for 2-person households; 6 pkts for 3 to 6 person households
kitchen tidy bin liners	1 and 2-person households, 5 pkts; 3 to 6-person households, 7.5 pkts
batteries	1 pkt 'D' for every household; 1 pkt 'AA' for each 10- and 14-year-old
rubber gloves	12 pairs for all households
insecticide	2 per household
insectrepellent	1 per person
children's party	not for the 14-year-old boy (the latter only for purchasers)
light globes and light fittings	overhead: 4 (bedroom, living/dining room, bathroom, kitchen); bedroom lamps: 1 (single adult), 2 (couple); 1 table lamp, 1 standard lamp (living/dining room);
one-bedroom unit	overhead: 7 (2 bedrooms, bathroom, living room, dining room, kitchen, entry); bedroom lamps: 1 (single woman), 2 (couple/woman and 1 child), 3 (couple and 1 child); desk lamp: 1 (1 child—not 3-year-old); 1 table lamp, 1 standard lamp (living room);
two-bedroom unit	overhead: 9 (3 bedrooms, living/dining room, bathroom, toilet, laundry, kitchen, hallway); bedroom lamps: 3 (woman and 2 children), 4 (couple and 2 children), 5 (couple and 3 children), 6 (couple and 4 children); desk lamps: 2 (2 and 3 children—not 3-year-old), 3 (3 and 4 children—not 3-year-old); <u>1 table lamp, 1 standard lamp (living room);</u>
three-bedroom unit	

APPENDIX 7.E (Continued): Complete Listing of Household and Cleaning Products Included in the Households Goods and Services Budgets (continued)

two-bedroom house	overhead: 11 (2 bedrooms, living room, 2 hallways, breakfast room, bathroom, kitchen, sleep-out, laundry, porch); bedroom lamps: 2 (couple/woman and 1 child); desk lamp: 1 (1 child); 1 table lamp, 1 standard lamp (living room),
three-bedroom house	overhead: 12 (3 bedrooms, living room, 2 hallways, bathroom, kitchen, laundry, pantry, verandah, sleep-out); bedroom lamps: 1 (70-year-old woman), 2 (70-year-old couple), 3 (couple and 1 child/woman and 2 children), 4 (couple and 2 children), 5 (couple and 3 children), 6 (couple and 4 children); desk lamps: 1 (1 child), 2 (2 children), 3 (3 and 4 children—not 3-year-old); 1 table lamp, 1 standard lamp (living room);
two-bedroom walk-up	overhead: 5 (2 bedrooms, living/dining room, kitchen, bathroom); bedroom lamps: 2 (single woman and child), 3 (couple and child); desk lamp: 1 (1 child); <u>1 table lamp, 1 standard lamp (living room).</u>

APPENDIX 7.F: Application of Childcare Assistance for Couple and Sole Parent Families with Varying Numbers of Dependent Children (Regime Applying from 1 April 1996 to 30 March 1997)

Example Family 1:

Couple, both full-time workers with one three-year-old child in care, with a combined weekly income of \$1,000 per week. Weekly child care costs are \$165 a week.

Using the CA percentage formula below, this family has a *CA percentage* of 26.35 per cent, derived as follows:

$$1 - \frac{[(\text{Weekly Income} - \text{Child Disregard - Threshold}) \times \text{Withdrawal Rate} + \text{Minimum Fee}]}{\text{Ceiling}}$$

$$= 1 - \frac{[(1,000 - 30 - 476) \times 0.133 + 19]}{115} = 0.2653$$

Rebateable fee = Hours of care x rebateable fee per hour x CA percentage
 $= 50 \times \$2.30 \times 0.2653 = \30.30 a week

Child care expenditure less CA = \$165 - \$30.30 = \$134.70 a week

Childcare Cash Rebate (CCR) = $0.3 \times (\text{weekly childcare expenditure} - \text{minimum fee})$. As of February 1997 CCR was not means-tested, but is paid up to a maximum of \$28.80 a week for one child in care and up to \$63.60 for two or more children in care.

$$\text{CCR} - 0.3 \times (134.70 - 19) = \$34.71 \text{ a week. Hence, only } \$28.80 \text{ a week is payable.}$$

Out-of-pocket costs = \$134.70 - \$28.80 = \$105.90 a week

Example Family 2:

Couple, both in full-time work (combined weekly income = \$1,000) with three dependent children aged three, six and 14. The three-year-old is in Long Day Care and weekly child care costs are \$165. The six-year-old is in before-and after-school care for school terms (203 days or 41 weeks) at an annual cost of \$1,806.70 (average cost \$44.50 per week). The six-year-old also requires vacation care during most of the school holiday periods (30 days or six weeks) at a cost of \$290 (includes an annual one-off equipment fee of \$20 per family) (average cost: \$48.33 per week).

Application of the CA formula for the three year old:

$$\text{CA percentage} = 1 - \frac{[(1,000 - 90 - 476) \times 0.133 + 19]}{115} = 0.3329$$

Rebateable fee = $50 \times \$2.30 \times 0.3329 = \38.30 a week

Having other dependent children in other forms of care affects the calculation of the CA percentage as the amount of child disregard is larger.

Child care expenditure less CA = \$165 - \$38.30 = \$126.70 a week

$CCR = 0.3 \times (126.70 - 19) = \32.31 a week. Since there is more than one child in care, an amount of \$32.31 a week is payable.

$$\text{Out-of-pocket costs} = \$126.70 - \$32.31 = \$94.39 \text{ a week}$$

In this example, the application of the CCR formula is complicated by the fact that the varying costs of care are not incurred uniformly over the year. Before-and-after school care and vacation care costs are 'lumpy', occurring only at certain periods.

To find the average weekly amount of CCR received by a household in a year, the number of weeks of before-and-after school care are multiplied by the weekly amount of CCR received for this type of care and this is added to the multiplication of weeks of vacation care by the weekly amount of CCR received for vacation care, with the resulting total expressed as a weighted average by dividing by the total number of weeks (52.14).

These calculations are based on the amount of child care expenditure (\$126.70) required to be paid after CA is determined. How the CCR is applied is shown below:

$$\begin{aligned} \text{Before and after school care: } & \$1,806.70 \text{ for 203 days, or } \$44.50 \text{ for five days.} \\ \text{Vacation care} & = \$290 \text{ for 30 days, or } \$48.33 \text{ for five days} \\ \text{Long day care expenditure (net of CA)} & = \$126.70 \text{ pw} \end{aligned}$$

In the weeks when before and after school care is used:

$$\begin{aligned} CCR &= 0.3 \times (126.70 + 44.50 - 19) = \$45.66 \text{ pw} \\ \text{Out of pocket costs} &- \$171.20 - \$45.66 = \$125.54 \end{aligned}$$

In the weeks when vacation care is used:

$$\begin{aligned} CCR &= 0.3 \times (126.70 + 48.33 - 19) = \$46.81 \text{ pw} \\ \text{Out of pocket costs} &- \$175.03 - \$46.81 = \$128.22 \text{ pw} \end{aligned}$$

Example Family 3:

Couple (combined weekly income of \$1,000) with four dependent children aged three, six, 10 and 14. The three-year-old is in long day care and two children aged six and 10 are in before-and after-school care. The six- and 10-year-olds are in before-and after-school care for school terms (203 days each) at an annual cost of \$3,613.40 (average cost: \$69.30 a week).

Both six- and 10-year-olds require vacation care during most of the school holiday periods (30 days each) at a cost of \$560 (includes an annual one-off \$20 equipment fee per family) (average cost: \$10.74 a week). Total weekly care costs for the six- and 10-year olds is thus \$69.30 plus \$10.74 = \$80.04 (rounded to \$80).

$$\text{CA percentage} = 1 - [(1,000 - 120 - 476) \times 0.133 + 19] = 0.3675$$

115

$$\text{Rebateable fee} = 50 \times \$2.30 \times 0.3675 = \$42.30 \text{ a week}$$

$$\text{Child care expenditure less CA} = \$165 - \$42.30 = \$122.70 \text{ a week}$$

Application of the CCR formula for the six- and 10- (and three-) year-old for before- and after school and vacation care, as well as the three-year-old for long day care:

Before and after school care: \$3,613 for 203 days, or \$89 for five days.
 Vacation care = \$560 for 30 days, or \$93.33 for five days
 Long Day Care expenditure (net of CA) = \$122.70 pw

In the weeks when before and after school care is used:
 $CCR = 0.3 \times (122.70 + 89 - 19) = \57.81 pw
 Out of pocket costs - \$211.70 - \$57.81 = \$153.89

In the weeks when vacation care is used:
 $CCR = 0.3 \times (122.70 + 93.33 - 19) = \59.11 pw
 Out of pocket costs - \$216.03 - \$59.11 = \$156.92 pw

Example Family 4:

Sole parent in full-time work with two children aged six and 10. The six- and 10-year-olds are in before-and after-school care for school terms (203 days each) at an annual cost of \$3,613.40 (average cost: \$69.30 a week).

Both six- and 10-year-olds require vacation care during most of the school holiday periods (40 days each) at a cost of \$740 (includes an annual one-off \$20 equipment fee per family) (average cost: \$14.19 a week). Total weekly care costs for the six- and 10-year-olds is thus equal to \$69.30 plus \$14.19 = \$83.50.

$CCR = 0.3 \times (\$83.50 - \$19) = \$19.35$ a week.

Out-of-pocket costs = \$83.50 - \$19.35 = \$64.15 a week.

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CHAPTER 8: THE HEALTH BUDGET*

8.1 Introduction

In developing a set of indicative budget standards for Australia, the Budget Standards Unit (BSU) has attempted to identify which specific goods and services are needed to attain a given standard of living and then to price them. Budgets have been developed at two distinct standards of living, a low cost standard and a modest but adequate standard. This chapter presents the health goods and services components for the project.

As with the other component budgets that comprise the overall budget standards, those described below have been revised in light of comments received on an initial draft of the paper (primarily by the members of the BSU Steering Committee) as well as in response to the feedback from a series of focus group discussions designed to provide input into the final budget standards. The health budgets have been priced at February 1997 which is the agreed pricing date for all of the component budgets.

According to the Australian Institute of Health and Welfare, it is now acknowledged that a wide variety of individual and social factors contribute to the determination of health, including the knowledge, attitudes and behaviour of individuals and the socio-economic context within which these evolve and exist. Where these factors cause ill-health, health costs can have a major impact on family budgets (AIHW, 1996).

In recognition of the fact that good health is one of the most fundamental aspects of overall well-being, Australia, like most other industrialised countries, has chosen to finance a comprehensive health care system through the public sector. As Palmer and Short (1994) note:

The most distinctive aspect of any country's health care system is the set of arrangements in operation that reduce or eliminate the financial burden of illness experienced by individuals.' (Palmer and Short, 1994, p. 58.)

In Australia, the Medicare system is designed to ensure that health resources are allocated according to the need for health care rather than ability to pay. This has had the effect of making many health care services free at the point of service including treatment in public

This budget was prepared by Colette Murray and Peter Saunders with assistance from Sally Doran. They would like to thank a range of people who helped with the development of the health budget. Kevin Forde and Stephanie Short, both members of the BSU Steering Committee, provided generous support and advice on a number of occasions. Ross Saunders, Akbar Hossain and their colleagues from the Commonwealth Department of Health and Family Services assisted with invaluable analysis of Medicare data. Daryl Harding of the Pharmaceutical Benefits Scheme provided information on prescription prices. Fearnley Szuster from the Dental Statistics Research Unit at the Australian Institute of Health and Welfare provided an analysis of a number of dental surveys. Thanks are also due to the Liaison Officer of the Dental Association who provided data on dental service prices. Staff at the United Dental Hospital generously provided advice on the construction of the health budget. The Librarian at Family Planning NSW, staff at the Sydney Sexual Health Centre and Mark Anns (Consultant Psychologist) assisted with the information on sexual activity. Anthony Smith, Senior Research Fellow at La Trobe University and Michael Flood from the Centre for Women's Studies at the Australian National University both provided useful data on contraceptive practices, and staff from the School of Optometry at the University of New South Wales provided advice on the types of spectacles to include in the budgets. Finally, the BSU would like to thank Top Campus Pharmacy for their generous provision of retail prices.

hospitals and where bulk-billing of certain medical services to the public health insurance system, Medicare operates.

The existence of Medicare has very important consequences for the development and interpretation of the BSU health care budget because many health care costs do not influence the budgets of households who utilise Medicare-funded health services that are free at the point of use.

It is, however, important to recognise that the financing of Medicare (and hence of the services provided under it) affects the income side of the household ledger through deductions in the form of the Medicare levy and those taxes which contribute to the financing of the health care system. This means that the fact that household budgets may contain low health costs does not imply that health costs are low in total, only that the financing of health costs operates collectively under the Medicare system.

Medicare provides 100 per cent cover for treatment for public patients in public hospitals, not only for medical treatment, but also for hospital accommodation, anaesthesia, nursing care, medicines and the food served. For private patients in either public or private hospitals, Medicare refunds 75 per cent of the scheduled fee for medical services (Health Insurance Commission, 1997). Medicare also subsidises the fees of GPs, specialists and optometrists, and there is a pharmaceutical benefit scheme which provides subsidies for most prescription medicines available from pharmacies.

The existence of Medicare does not, however, mean that health care is entirely free at the point of use to users. Medicare itself does not cover the total cost of all services and there are many treatments that are not covered at all. This has meant that a substantial (though declining) proportion of Australian households take out private health insurance to cover the cost of those services not met by Medicare. Others have chosen to take out private health insurance because of their concerns over public hospital waiting lists and desire to have the choice of doctors and a range of hospitals (Wilcox, 1991), as well as to cover costs not included under Medicare.

For those without such private health insurance cover (and even for some of those with it) there are also many out-of-pocket health care expenses, including the cost of pharmaceuticals for many people and the cost of ancillary health services not covered under Medicare (e.g. dental services). In addition, many people incur costs associated with various forms of self-care, including everything from buying aspirins and cough syrups through to the costs of preventative practices such as attending keep-fit classes and so on.

It follows that although Medicare is the single most important component of the Australian health care system, not all health costs are covered by Medicare, or even by government generally. In 1993-94, for example, when total expenditure on health amounted to \$36,663 million or 8.6 per cent of gross domestic product (GDP), total health expenditure by Commonwealth, State and local governments was \$24,684 million, with the remaining \$11,979 million expended by the private sector (AIHW, 1996, p. 122).

Although health care costs are significant *on average*, that figure conceals an enormous degree of variability within the population as a whole. This means that because people have varying needs depending on their state of health, decisions have to be made about what to include in a health care budget and what to exclude. The state of people's health (or morbidity) can be

related to their age and sex, as well as to a wide range of variations in their life experiences and genetic make-up, including their attitudes to health services and the cost of accessing them.

This cost will in turn depend upon a number of factors other than the direct medical costs, including the cost of transport to and from medical services and any loss in earnings contingent upon having to take time off work for those without access to paid sick leave. Not all of these costs can be easily identified and many of them cannot therefore be factored into a health budget. In order to decide which costs should be included, it is useful to begin by considering the basic purpose of the health cost component of household budgets and what methodology is best suited to its development.

8.2 Methodology and Data

Methods

Given the wide range of variations in health care needs, it is not possible to reflect the needs of all individuals within a single budget. The starting point in developing the indicative health budgets is that they apply to the cost of meeting a representative range of health care needs by those who are *generally in good health*. In practical terms, this implies that the budgets only apply to those who are not suffering from any major forms of illness, disability or handicap and do not include the costs associated with meeting these permanent chronic conditions.¹

However, it is desirable for the health budgets to include the cost of those services which are designed to meet the temporary health needs that even healthy people have reason to use from time-to-time. The main issue here is how to determine the scope of services to include without contradicting the basic postulate that the budgets apply to those who are in a normal state of good health.

Before considering that, it is important to define what good health is in order to determine what health care needs are experienced by people who are 'generally in good health'. The World Health Organisation (WHO) has defined health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 1946). Those who are 'generally in good health' are thus considered to be people who maintain an overall state of health as defined by WHO. The basic purpose of the health care budget is thus to identify the health care needs of those who are generally in good health and to cost them.²

In the light of this focus on those who are 'generally in good health' it should be emphasised that the health budgets presented below may be considered to provide a conservative estimate of health care costs. This view is reinforced by the fact that the methodology applied has the effect of excluding many of those health services which even 'healthy' people might be expected to use in any given period.

One of the rationales for adopting this approach is that it serves as a benchmark against which the costs associated with deviating from the assumption of 'good health' can be determined. It

¹ As a separate aspect of the research, an attempt has been made through the use of a special focus group discussion to explore how relevant the household budgets are to the circumstances of families containing a person with a disability (see Chapter 13).

² The assumption that the individuals in the BSU households are 'in good health' is implicitly also adopted in several other component budgets. Thus the leisure budget (Chapter 10) assumes that people exercise regularly to maintain their health, while the transport budget (Chapter 9) assumes that people are physically able to use public transport.

also provides a basis for the customisation of the health budgets for those who have greater health needs.

In general], the determination of which health needs to include in health budgets has been informed by both normative and behavioural considerations. The former is generally provided as input from the relevant experts, either as already articulated norms or norms developed specifically in the development of the budget standards.

The behavioural data serve two distinct purposes: first, as a 'reality check' on expert judgements, to ensure that they are consistent with prevailing community attitudes and behavioural patterns; second, where there are no norms available, to allow the cost of attaining a given standard of health to reflect the actual behaviour of the majority of the Australian population.

The health care budgets include, where appropriate, expenditures incurred in using services and products such as prescription medication, pathology, radiology, physiotherapy, podiatry and GP and specialist consultations. Although many of these services would not be used by the individuals in 'good health' for whom the health budgets have been developed, some services will be utilised even by those who are generally in good health as a consequence of applying a utilisation rule.

Adoption of the concept of individuals who are 'in good health' as the normative basis on which the health budgets have been constructed thus needs to be modified in the light of behavioural data on actual health service utilisation, on the grounds that even healthy people occasionally have recourse to consult health professionals and use health services.

It follows from this that an essential ingredient in the development of the health care budget is data on the actual utilisation of a range of health care services classified by the age and gender of users. Such data enable the identification of those services that are used by a majority of the population of a given age and gender in a given period of time. The approach is designed to ensure that health service usage, and hence health care costs, follow the pattern of need for health care as individuals in 'good health' move through the different stages of their life course.

In the development of other budget components, as explained in Chapter 2, a series of 'rules of thumb' have been used to establish whether or not to include an item in the budget on the basis of observed behaviour. In relation to the ownership of household items, for example, the rule implies that only those items owned by 50 per cent or more of the population are included in the modest but adequate budgets, and only those items owned by 75 per cent or more are included in the low cost budgets. Should the same rules also apply in developing the health budgets or should they be either varied or discarded entirely because of the special circumstances that apply to health care?

An important consideration in this context is that morbidity varies systematically with age, even for those considered generally to be 'in good health'. This means that the actual utilisation of health services by someone aged over 65 will differ from that of someone aged 35, even when both individuals are regarded as of comparable good health given their age.

To ignore the impact of age on morbidity would thus have the effect of attributing too much health usage to the young and too little to the aged if the same utilisation rule was adhered to, on average for the population as a whole. At the very least, this suggests that age must enter

explicitly into the rules used to determine health service usage by those considered to be 'in good health'.

The first step in developing the health budget involves checking whether or not the utilisation of each service satisfies the 50 per cent rule for a given age/gender group in the population. The same benchmark has been used in developing both the low cost and modest but adequate health care budgets, because the use of health care services is considered too important, both to the individual and to society at large, to be allowed to vary with the level of economic resources.

However, this assumption does not imply that the health budgets will be identical at the two standards, because scope remains for differences in the costs that individuals have to bear when using the health care system. Two versions of the low cost health budgets have been derived, the first without allowance for dental and eye care benefits, the second with it. Similarly, the modest but adequate budgets have been derived both with and without private health insurance cover. This has been done to highlight the impact of such coverage on the health cost facing households at the two standards.³

In deriving the health budgets, the cost of health care has mainly been calculated separately for each individual in the household. Even items such as pain relievers and cough mixtures, which are commonly purchased for use by the whole household have been allocated as a set amount for each individual. The only costs which have been allocated to the household, as opposed to specific individuals within it, are the costs of private health insurance and a first aid kit.

Development of the BSU health budget from the perspective of the individuals has the effect of including only those health care services used by 50 (or 75) per cent of *individuals* of their age and gender. An alternative approach would be to apply the rule to the household as a whole, in which case a service would be included if the health service usage data indicate that the probability of *at least one household member* using a specific service exceeds 50 (or 75) per cent.

The latter method would result in a higher proportion of services being included in the health budgets, as can be seen by considering a service that is used by (say) 40 per cent of the population, regardless of age and gender. This would not satisfy the 50 per cent rule, but would be included for all households of two or more, because the probability of *at least one individual in that household* using the service would exceed 50 per cent.

The former method is, however, more consistent with the approach that has been used to develop many of the other BSU budgets, where needs are fundamentally individual in their nature (e.g. the food and clothing and footwear budgets). Application of the utilisation rule at the individual level is also easier to apply in practice given that much of the existing data on service usage do not identify the household circumstances of individual health service users.

Another difficulty that arises relates to whether or not the allocation method for health service utilisation should be applied to each service (aside from GP consultations and dental treatment which are considered separately below) or in a combined way to all of them.

³ For consistency with other budgets, pharmaceutical concessions have also been assigned to the 70-year-olds at the modest but adequate standard so that they are assumed to pay 'pensioner prices' for vaccines and other pharmaceuticals (see below).

The first method would only include those *individual* services used by more than 50 per cent of the population with a given age/gender profile by assigning a cost to the average number of consultations of each service type that satisfied the rule. The second method would consider whether or not the probability of using *at least one* among a list of services exceeds the 50 per cent rule, and then assigning to each relevant individual the appropriate number of visits to the service which is used most frequently on average.

Again, the second approach will in principle lead to a greater number of health care services included in the health budgets than the first, although in practice it is possible that neither method will find any services where usage exceeds the 50 per cent rule. However, the second method would involve grouping together health services which serve different purposes. The price charged for each service would also differ and the actual amounts that were allocated would thus not be representative of the expenditure of the majority of people.

Finally, in the case of the usage of dental services, a more explicitly normative approach has been used, reflecting the emphasis given in the dental profession to the importance of preventative treatment. Within this broad approach, behavioural data have again been used for benchmarking purposes, but the frequency of visits to the dentist and the kind of treatments received are specified according to expert advice on appropriate norms.

In summary, the BSU health budgets are based on the assumption that they apply to individuals in 'good health' and they are also heavily influenced by normative decisions relating to the need for health services by healthy individuals. It is at this second stage where recourse has been made to behavioural data on actual service utilisation patterns so that those services which are incorporated into the health budget correspond to those most commonly accessed by actual Australians of different ages and genders.

In this way, the basic normative framework that provides the foundation on which the health budgets have been constructed has been moulded to conform with the behavioural data on service utilisation patterns.

Data

As explained above, health care needs have been identified by analysing behavioural data on the usage of health services by people of differing ages and gender. In practice, this involved analysing the data gathered in several large-scale social surveys of health service use among different groups in the population. By measuring what people actually do to look after their health needs, these surveys reveal community norms of behaviour relating to the use of health care services, on which the health budgets are based.

The following surveys and reports have been used to provide the data from which the health care budgets have been derived:

- 1989-90 *National Health Survey*⁴ (ABS, 1992c);
- *National Dental Telephone Interview Survey 1994* (Carter *et al*, 1995);
- 1987-88 *National Oral Health Survey* (Barnard, 1993);

⁴ Results from the *1995 National Health Survey* were not available when the health budget was being developed and have thus not been used to inform its development. The one exception relates to the incidence on the use of spectacles, where a special data run was purchased from ABS and incorporated into decisions relating to the usage of spectacles (see below).

- *Morbidity and Treatment in General Practice in Australia 1990-1991* (Bridges-Webb, 1992);
- 1992 *Health Insurance Survey Australia* (ABS, 1993); and
- *Australia's Health, 1996* (AIHW, 1996).

In addition, data on the use of medical services in 1995-96 provided on request by the Medicare Statistics Unit within the Commonwealth Department of Health and Family Services have been a valuable source of supplementary information.

As with all other budget components, the opinions of relevant professionals have been taken into account in developing the health care budget. These normative judgments from the health experts have at times been combined with behavioural data derived from the surveys described above in order to arrive at the final budget entries. As always, one advantage of the budget standards method is that it provides a framework for making these judgements explicit and transparent and thus more easily identified and debated.

Pricing

There is a great deal of variation in the prices of health care services and products because health professionals do not always charge the same fee for the same service. In addition, out-of-pocket health care expenses differ depending on whether or not the individual has private health insurance cover. Health care costs also vary because of the existence of some concessions available to low income households, such as pharmaceutical benefits, discounts on disability aids, free dental care, and so on.

As noted earlier, the impact of the Medicare system in reducing out-of-pocket health costs has been factored into the health budget calculations because of its importance as a universal scheme of health insurance which provides substantial assistance to all who use medical services, regardless of income level.

In addition to the services covered under Medicare, there are a range of other health care services which are funded, directly or indirectly, by government, both Commonwealth and State. Many clients of the Department of Social Security (DSS) are entitled to a Health Care Card which reduces their medical expenses such as the cost of prescription pharmaceuticals substantially, sometimes to zero.

In addition, Community Health Centres provide a wide range of health care services free of charge to the general community. Some of these services focus on particular groups with special needs, such as women or indigenous Australians. Many of the services provided by such health professionals as social workers, psychologists, speech pathologists and podiatrists are provided without charge to users, once their health needs have been determined.

A number of sources of information have been used to determine what fees are charged by the various health service professionals. Bulk-billing has been taken into account in estimating costs for these services. Those services that are predominantly provided on a bulk-billing basis are considered to be free of charge at the point of use in the health budgets. In the case of service providers who appear not to bulk-bill very often, information on the average patient contribution per service has been supplied by the Medicare Benefits Branch in the Commonwealth Department of Health and Family Services.

⁵ In practice, doctors often charge different fees for the same service, and although the AMA publishes recommended fees, these are intended as a guide and are not obligatory.

8.3 The Components of the Health Budget

Health Insurance

Health insurance in Australia is of both public and private forms. As explained earlier, membership of the public health insurance system, Medicare, is compulsory and is funded through the taxation system and by way of the Medicare levy, although as noted earlier, no account is taken of the payment of the Medicare levy in developing the health care budget.⁶

Medicare entitles all Australians to the following services:

- free treatment as a public patient in a public hospital;
- free or subsidised treatment by a General Practitioner, a medical specialist or an optometrist; and
- subsidised prescription medicines provided through the Pharmaceutical Benefits Scheme (PBS).

Further information about the nature of these entitlements is provided in material released by the Health Insurance Commission (HIC) (e.g. HIC, 1997).

In addition to Medicare, there are also a number of private health insurance funds which provide cover for private treatment in both public and private hospitals, as well as to cover some of the cost associated with the use of ancillary services such as dental care, optometric procedures and spectacles, chiropractic, physiotherapy and pharmacy which are not covered by Medicare. Further, private funds are able to cover the difference between doctors' fees and the Medicare rebate.

The cost of private health insurance varies among providers and according to the type and extent of cover chosen. The majority of people who have private health insurance (around 75 per cent of contributors) have hospital and ancillary cover (Private Health Insurance Administration Council, 1995, p. 24).

However, the majority of Australians do not belong to a private health insurance fund and the percentage that do is declining. The *Health Insurance Survey* conducted in 1992 by the Australian Bureau of Statistics (ABS, 1993) indicated that less than 50 per cent of the population had private health insurance cover, although this percentage varied according to demographic characteristics such as age, marital status and parenthood (Tables 8.1 and 8.2).

The extent of the decline in private health insurance membership is documented in the Annual Reports of the Private Health Insurance Administration Council (e.g. PHIAC, 1996). Coverage of hospital insurance, for example, has declined from 50 per cent in 1984 to 33.6 per cent in 1996, with an acceleration in the rate of decline after 1990 (PHIAC, 1996,

⁶ The Medicare levy (in 1996-97) cuts in once taxable income exceeds \$13,127. If taxable income is between \$13,127 and \$14,346, the levy is shaded-in at the rate of 20 per cent of the excess of income over \$13,127. The levy is then applied at a flat rate to all taxable income above \$14,346 (for an individual), or \$22,152 (for a couple), with a further allowance of non-levied income of \$2,100 for each dependent child. The levy rate in 1996-97 was 1.7 per cent (CCH Australia, 1997), compared to the normal rate of 1.5 per cent. An additional 0.2 per cent was temporarily added in 1996-97 to fund the gun buy-back scheme.

Table 8.1: Coverage of Private Health Insurance by Type and Age (Percentages)

Coverage/ Age (years)	15-24	25-34	35-54	55-64	65-74	75+	Total
Hospital only	4.6	6.5	7.9	11.9	14.0	14.5	8.5
Ancillary only	3.6	4.6	4.6	2.7	1.3	0.8	3.6
Hospital and Ancillary	23.5	28.5	39.1	38.4	24.5	20.9	31.2
Insurance type not known	1.2	0.7	0.7	0.6	0.5	1.2	0.8
Total	32.9	40.4	52.4	53.5	40.3	37.5	44.1
Without private health insurance	67.1	59.6	47.6	46.5	59.7	62.5	55.9

Source: ABS, 1993, *Health Insurance Survey, 1992*, Table 11.

Table 8.2: Form of Private Health Insurance Coverage by Family Status

	Type of Insurance Coverage:			
	Contributor only	Contributor and children only	Contributor and partner only	Contributor, partner and children
Percentage with insurance	37.9	23.3	51.6	55.7

Source: ABS, 1993, *Health Insurance Survey, 1992*, Table 10.

Table 9). By June 1996, the percentage of the population covered by Hospital Insurance plus Ancillary Cover was 26 per cent, while coverage of Ancillary Cover Only was only seven per cent (PHIAC, 1996, Table 8).

In light of this, it was decided that no allowance would be made for private health insurance coverage in the low cost BSU health budgets, on the grounds that such coverage is not essential given the existence of Medicare.

In the case of the modest but adequate budgets, however, these have been derived using two alternative assumptions, firstly that the household has private health insurance cover and secondly that it does not. (Only the budgets which *exclude* private health insurance are used later in this Report when the overall low cost and modest but adequate and the derivative budgets are derived and analysed.)

This approach makes the cost of health insurance coverage in the budgets explicit, without prejudging the issue of whether or not such coverage should be incorporated into the budgets. The inclusion of health insurance in modest but adequate budgets also means that it is possible to adjust the budgets in future years to reflect any changes in the cost to consumers of private health insurance.⁷

⁷

An important change of this nature was announced in the 1997-98 Federal budget, with the introduction of the Private Health Insurance Rebate from 1 July 1997. This change is not reflected in the health budget, which has been priced and costed in February 1997.

Where the household is assumed to have private health insurance coverage, this is assumed to apply to the whole family. The type of cover selected was Supplementary Hospital Table with Ancillary Insurance.⁸ The insurance provider chosen for this purpose was Medibank Private, as it is available throughout Australia and is one of the country's major health insurance providers. Following the advice provided by Medibank Private, the type of cover assumed was the 'Blue Ribbon Saver' as this is the most common form of hospital cover for young people and young families—supplemented by the 'Super Extras' option which covers a broad range of services.

The 'Blue Ribbon Saver' package provides 100 per cent cover for most services but excludes services which are unlikely to be needed by fit and healthy people and those who are not planning pregnancy. Events such as hip and knee joint replacements, open heart surgery and pregnancy and birth related services are excluded. The policy also requires an excess to be paid if hospitalisation is required.

Medibank Private's 'Super Extras' policy provides cover for services not covered by Medicare or Basic Hospital Cover. The Super Extras cover provides financial support for an extensive range of services including pharmaceutical prescriptions, ambulance transport, physiotherapy, chiropractic, podiatry, dietitian, occupational therapy, speech therapy, orthoptics, clinical psychology as well as the provision of hearing aids, prostheses, and a number of other appliances and services (Medibank Private, 1995). Level 2 Blue Ribbon Saver insurance requires members to pay an extra amount per year if hospitalisation occurs (\$500 for those in the couple or family insurance package and \$250 for those in the singles insurance package).

On the basis of these assumptions about scheme membership, the cost of private health insurance per year for a family is as indicated in Table 8.3.

Table 8.3: Annual Cost of Private Health Insurance in NSW/ACT

Insurance Type	Single	Couple	Sole Parent with Children	Family (Couple with Children)
Blue Ribbon Saver (Level 2)	\$413.95	\$771.70	\$735.20	\$828.00
Super Extras	\$344.45	\$688.90	\$688.90	\$688.90
Total Insurance	\$758.40	\$1,460.60	\$1,424.10	\$1,516.90

Source: Medibank Private Brochures (1996a and 1996b)

It is necessary to take account of the fact that the actual cost of private health insurance varies with the method used to pay the premiums. The health insurance costs in Table 8.3 reflect a payment method which requires members to pay their premiums 12 months in advance; this

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Supplementary Hospital Table provides additional hospital accommodation benefits to those provided by the Basic Hospital Table, which provides cover for in-patients of recognised public and private hospital as well as day hospital facilities. Benefits are usually less than the actual charges incurred, except for shared ward patients in recognised public hospitals. Ancillary cover provides benefits for services outside of hospital such as dental services and other allied health services (PHIAC, 1995; 1996).

method of payment reduces the annual cost by eight per cent compared with paying personally on a weekly basis direct to the insurer.⁹

In those instances where private health insurance coverage has been incorporated into the development of the health budgets, the costs of health care have been adjusted to include the price of private health insurance, as well as the support it offers (in terms of lower out-of-pocket expenses) for a number of services that have been allocated to households at the modest but adequate level.

Hospital Costs

As has already been noted, the cost of hospitalisation has not been included in the health budgets, on the assumption that Medicare provides free treatment and accommodation in public hospitals for all public patients. There are some out-of-pocket expenses for private patients in public and private hospitals, depending on whether they have private health insurance cover or not and the type of insurance cover taken, although these too are excluded from the budgets because they do not assume any periods of hospitalisation (see details below).

In relation to the cost of services provided by specialists, radiologists and other health professionals which are generally provided outside of the public hospital system and for which fees are directly charged to the patient, an estimated cost per individual has been determined and allocated to those individuals where the service usage data shows them to satisfy the 50 per cent utilisation rule. Further details of how this was done are also provided below.

Medical Costs

Medicare underwrites the cost to the patient of medical consultations, allowing medical providers to bulk-bill by sending the bill directly to Medicare with no charge to the patient. The health budgets have been designed to take account of this by defining a medical service as free if over 50 per cent of health care providers in any particular category actually do bulk-bill their patients.

For services where the provider does not bulk-bill, such as the majority of specialist consultations, patients have to pay part of the cost themselves, since Medicare covers only 85 per cent of the approved schedule fee. As Table 8.4 shows, there are some medical services, notably specialist consultations, where less than 50 percent of practitioners bulk-bill.

Table 8.4 indicates that it is possible, indeed common, to find doctors who bulk-bill and whose services do not therefore cost the patient anything, although this is much less common in the case of specialist attendances. Since the services provided by GPs, as well as pathology services and optometry are commonly bulk-billed, they have been regarded as free for the purposes of constructing the health budgets.

In contrast, because the Medicare data indicate that specialists, obstetric and anaesthetic services are not often directly billed, the cost of the services provided by these practitioners enter into the health budgets where these services are accessed.

⁹ Alternatively, it is possible to save four per cent on the basic cost of insurance by paying automatically through a bank account or arranging payment through an employer direct to Medibank Private (Medibank Private, 1996a), although this has not been factored into the health budgets. The maximum total discount obtainable is the eight per cent included in the BSU health budgets.

Table 8.4: Percentage of Services by Broad Service Type that Bulk-billed in 1995-96

Service Type	Percentage who bulk-bill
GP	80.1
Specialist attendances	32.5
Pathology	76.1
Obstetrics	26.3
Anaesthetics	9.3
Diagnostic imaging	61.1
Operations	43.8
Assistance in operations	2.1
Optometry	94.5

Source: Medicare statistics provided by the Commonwealth Department of Health and Family Services.

However, before the costs associated with the use of any of these medical services can be included in the health care budget, they must first satisfy the 50 per cent utilisation rule described earlier. Identification of the services which satisfy this rule, and for which groups in the population, requires the analysis of health service usage data.

Table 8.5 uses data provided by the Medicare Benefits Branch of the Commonwealth Department of Health and Family Services (DHFS) to estimate the average rate of use of different medical services by age and gender in 1995-96 using a 10 per cent random sample from the Medicare records. The Medicare records provide information on the number of people of different ages and gender who used each service over the course of the year and the number of attendances. The first piece of information has been converted to an annual utilisation rate¹⁰ by dividing by estimates of the population in each category and these are shown in Table 8.5.

The Medicare information has then been used to determine which of the various medical services listed in Table 8.5 exceed the 50 per cent utilisation rule for individuals of differing ages. Those services which exceed the 50 per cent benchmark are shown in bold type in the Table. All other services for which the estimated utilisation rate is less than 50 per cent are automatically excluded from further consideration.

Once the services to be included have been identified, the average number of uses of each service within the year must be calculated. This again involved using the Medicare statistics data base by dividing the total number of separate provisions of each service over the course of the year by the number of service visits (and then rounding to the nearest whole number). The resulting estimates are shown in Table 8.6.

It should be noted that it is not possible to ascertain from the data file used to derive the estimates shown in Table 8.6 how many of each of the services were provided in a hospital setting as opposed to an out-of-hospital setting. For the purposes of the study, it has been

¹⁰

Population estimates for 1995-96 have been derived by taking the average of the published ABS estimates for June 1995 and June 1996.

Table 8. 5: Percentage of Patients Attending Medical Services by Age in 1995-96

Type of Service	Age (Years)											
	Less than 5 years		5 to 19 years		20 to 44 years		45 to 59 years		60 to 74 years		Over 75 years	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Unreferred (GP)												
attendances	93.0	91.9	•80.7	83.1	77.9	91.9	83.6	91.5	87.3	91.9	86.2	98.2
Specialist attendances	25.8	22.1	17.5	16.6	17.0	32.7	31.0	41.7	46.5	49.7	49.5	54.4
Obstetrics	-	0.0	-	0.2	-	7.0	-	0.0	-	missing	-	0.0
Pathology	19.9	20.2	13.6	22.1	24.8	-60.7	42.3	60.6	57.7	62.3	58.3	65.3
Anaesthetist etc.	2.8	1.7	2.2	2.9	2.9	7.8	5.7	8.2	9.0	9.3	9.6	10.3
Diagnostic imaging	11.4	11.1	18.3	18.7	20.2	33.5	26.7	41.0	39.0	44.8	39.8	45.5
Operations	8.8	4.4	9.9	7.3	13.2	16.1	21.2	22.8	30.5	28.3	31.3	31.5
Assistance in operations	0.2	•0.1	0.3	0.3	0.7	1.5	1.5	2.3	2.9	3.1	3.5	4.5
Optometry	1.5	1.4	10.2	14.0	10.5	16.7	24.9	29.5	23.8	25.7	21.6	23.7

Sources: A 10 per cent sample of Medicare records supplied by the Commonwealth Department of Health and Family Services for the financial year 1995-96.

ABS, *Estimated Resident Population by Sex and Age, States and Territories of Australia, June 1995 and Preliminary, 1996*,

Table 8.6: Estimates of the Average Annual Usage of Medical Services by Age

Age	Sex	GP	Specialist	Pathologist
3	F	7	0	0
6	F	5	0	0
10	M	4	0	0
14	M	4	0	0
35	F	7	0	6
40	M	5	0	0
70	F	10	4	9
70	M	8	0	9

Source: See Table 8.5.

assumed that use of the GP, specialist and pathology services are for people not in hospital and that the cost of these services has therefore been priced as if they were provided outside of a hospital setting."

The estimated pattern of health service utilisation shown in Table 8.6 reveals that the individuals in each of the BSU household type are assumed to use very few medical services other than visiting the GP during the course of the year. Aside from these GP visits, the only other contact with medical services reflected in the health budgets are the four visits each year to a specialist by the 70-year-old woman, the six pathology services used each year by the 35-year-old woman, and the nine pathology services used each year by each of the 70-year-old man and 70-year-old woman.

These figures highlight the fact that the health budgets have been derived on the assumption that individuals are 'healthy' even though in practice some healthy individuals will need to use a wider range of medical services than is implied by Table 8.6, though not necessarily in any single year. In other words, the health budgets make no allowance for any unanticipated use of medical services and to this extent, as noted earlier, might be regarded as somewhat on the conservative side.

Data on the costs of specialist services for those individuals assumed to use them were based on the average patient contribution per specialist service (patient-billed and direct-billed services) for the December quarter 1996. The average price to the user of the service (\$9.34) was then multiplied by the number of assumed visits (four visits to a specialist for the 70-year-old female, for example) in order to arrive at the total annual costs.

The costs associated with using health services other than those shown in Tables 8.4 to 8.6 should also be considered for inclusion in the health budget. In determining which of these services satisfied the 50 per cent utilisation benchmark, information on health service consultation rates derived from the 1989-90 *National Health Survey* (NHS) was employed.¹²

Other services such as anaesthetics, operations and assistance in operations, had they reached the 50 per cent cut-off would have been priced according to private hospital fees for service.

¹² As noted earlier, data from the 1995 NHS were not available at the time the analysis was conducted and so could not be used to inform the health budgets.

The NHS records the number of people who reported visits to a wide range of health professionals, including conventional services like dietetics and physiotherapy, but also those reporting having visited alternative therapies, like naturopathy, during the fortnight prior to the conduct of the survey interview. These statistics were converted to an estimated yearly consultation rate by multiplying the number of reported (fortnightly) visits by 26 and dividing by the size of the relevant population.¹³ The resulting annual usage rate estimates thus derived were then compared with the 50 per cent utilisation benchmark.

Tables 8.A.1 and 8.A.2 in Appendix 8.A show the estimated annual utilisation rates which are derived from the NHS data using the above methods, for males and females, respectively. The figures shown in bold type in these two Tables are those for which the estimated annual consultation rate of individuals in the BSU households exceeds the 50 per cent benchmark.

Of the seven consultation/gender/age combinations that exceed the cut-off, four (corresponding to visits to an optician/optometrist and, in the case of children under five, visits to a baby health nurse) are assumed to involve no cost to users and thus do not affect the health budgets.¹⁴ This leaves three cases where the 50 per cent utilisation rule is exceeded; chiropractor consultations by females aged 25 to 44, and physiotherapy and podiatry consultations by females aged 65 to 74.

Even in relation to these cases, however, it needs to be emphasised that the data in Appendix 8.A refer to the *incidence* of consultations and do not take into account the *number* of visits made by those who consult the various types of professionals in any single year. The estimates have been derived on the implicit assumption that those who do visit these professionals, do so only once within the year. Where there are multiple visits within the year, the estimates need to be revised accordingly, remembering that the 50 per cent rule applies to the proportion of the *population* who use each service in a given year.

This means, for example, that if those who consult a podiatrist do so on average twice a year, then the consultation rates in Tables 8.A.1 and 8.A.2 must be halved in order to derive the proportions of *people* of a given age and gender who consult a podiatrist in a 12 month period. Since details of how many visits to each service were undertaken in a year are not provided on the NHS data file, an estimate of this figure was obtained by consulting the professionals themselves.

This revealed that in each of the three cases where the 50 per cent rule is exceeded on the basis of the above estimates (physiotherapy; chiropractic; and podiatry services), the average number of visits by users exceeded one a year. This in turn implies that none of these three services for which the utilisation rates are shown in bold in the Appendix tables were likely in fact to have been consulted by more than 50 per cent of the *population* in a year. For this reason, given the basic methodology used to construct the health budgets, these too were excluded from further consideration.

Although the cost of optometry visits is not included in the health budgets (because of the high incidence of bulk billing for these services), they were assessed to see if more than 50 per cent of the *older* population visited an optometrist in the course of a year. Optometrists reported

¹³ This method was identical to that used by the Australian Institute of Health and Welfare in developing the service usage component of its analysis of health differentials among the Australian population (Mathers. 1995).

¹⁴ Although visits to the optometrist are generally free, the purchase of spectacles or contact lenses is not, and the cost of these items is thus included separately in the health budget (see below).

that follow-up appointments would not usually be required, and information from the Medicare Benefits Branch of DHFS revealed that the average number of visits to an optometrist in 1995-96 was one. It follows that optometry services also meet the 50 per cent rule for the older female and male.

The costs of alternative health care treatments have not been included in the BSU health budgets, because data from the *National Health Survey* shows that the number of people who visited an alternative health care practitioner in 1989-90 was less than 50 per cent (ABS, 1992a). Another study, conducted in South Australia, revealed that 20 per cent of respondents had visited at least one alternative practitioner in the past year and that there were no significant differences in attendances by males and females (MacLennan, Wilson and Taylor, 1996).

These studies indicate that the majority of the population do not consult alternative therapists and thus a cost for these services has not therefore been included in the health budgets.¹⁵

Dental Costs

Development of the costs relating to the dental care needs of household members was based on information collected in a dental survey undertaken by telephone interview in 1995 (Carter, 1995), supplemented by data generated by the 1987-88 *National Oral Health Survey* conducted by the (then) Department of Health, Housing, Local Government and Community Services (Barnard, 1993). Advice was also provided by dental health professionals, who reported that the need for dental care is closely tied to individual requirements, but also recommended that everyone over the age of two years should visit a dentist for a check-up at least once a year.

The 1995 telephone survey provided information on the average number of annual visits, examinations, extractions, fillings and scaling by patients classified by age and sex. The previous such survey, undertaken in 1987-88, reported the percentage of people who had visited a dentist in the previous 12 months, with similar results. The earlier survey also demonstrated that most people visited the dentist once a year, and that general examinations (or check-ups), fillings and cleaning were the most commonly used procedures on those occasions.

Table 8.7 contains information from the 1995 survey on the percentages of respondents in each age group who had visited the dentist during the previous 12 months, along with the most common services provided.

Estimates of the average number of visits made by those who had been to the dentist in the previous 12 months are summarised in Table 8.8. This shows that those who had visited the dentist tended to do so twice a year on average. In round terms, therefore, the survey data reveal that although only just over half of the adult population visit the dentist each year, those that do visit a dentist tend to go on two separate occasions.

The survey data reviewed above have been useful in deciding how many dental visits to incorporate into the determination of the health budget. Of course, this kind of behavioural

¹⁵ The study by MacLennan and colleagues revealed that, in 1993, respondents who had visited one or more alternative therapists in the past year estimated their yearly costs to vary between \$1 and \$3,000, with a median cost of \$120.

Table 8.7: Percentage of People Who Visited the Dentist in the Past 12 Months and the Services Provided

Age (years)	Per cent who visited a dentist (%)	Services provided to those who visited a dentist (%)		
		Filling	Clean/scale	Extraction
5 to 11	93.1	34.5	52.5	5.4
12 to 17	72.2	23.7	69.3	13.4
18 to 24	57.7	40.7	71.4	14.2
25 to 44	54.0	49.8	78.1	14.1
45 to 64	61.0	56.4	77.7	14.9
65 plus	59.9	58.9	65.5	13.6

Source: *National Dental Telephone Interview Survey*, Dental Statistics and Research Unit, AIHW (Carter, 1995).

Table 8.8: Persons who Visited the Dentist in Previous 12 Months: Mean Number of Visits

Age group	Males	Females
10 to 14	2.0	2.1
35 to 44	1.9	2.0
65 plus	2.0	2.0

Source: Barnard, 1993, p. 14.

information can only provide guidance as to what to include in budget standards that also embody normative considerations. The dental component of the health budget has thus been formulated on the explicitly normative basis that each person (children and adults) should make one visit to the dentist each year.

The next issue relates to which specific dental services are assumed to be utilised during the course of those visits. This determination has been based upon the service utilisation patterns shown in Table 8.7.

In particular, it has been assumed that where the utilisation rate lies between 50 per cent and 100 per cent, an annual figure of 50 per cent (corresponding to one utilisation every two years) is used, and where the usage rate falls below 50 per cent, a zero usage is assumed. This pattern of assumptions, combined with the behavioural data in Table 8.7, results in the dental need estimates shown in Table 8.9.

Finally, to cost the health budgets, the average pattern of assumed service usage shown in Table 8.9 has been multiplied by the average cost charged for consulting each service. These costings have been based on information provided by the Dental Health Foundation of Australia, which indicates that the average cost of a simple one surface amalgam filling is \$52.50. Thus, on the basis that Table 8.9 indicates that adults over the age of 35 require one filling every two years, the health budgets include an amount of \$26.25 per year to cover the cost of fillings for those who fall within this age range (see Table 8.11).

Table 8.9: Estimates of the Annual Number and Type of Dental Care Service Utilisations

Age (years)	Sex	Visits	Fillings	Scaling
3	Female	1	0	0
6	Female	1	0	1 *0.5
10	Male	1	0	1 *0.5
14	Male	1	0	1 *0.5
35	Female	1	1 *0.5	1 *0.5
40	Male	1	1 *0.5	1 *0.5
70	Female	1	1 *0.5	1 *0.5
70	Male	1	1 *0.5	1 *0.5

Public dental care is provided free of charge or at a subsidised cost to those who are in receipt of a Commonwealth Government benefit from DSS and who hold either a Health Care Card, a Health Benefits Card, a Pensioner Concession Card or a Commonwealth Seniors Health Card. The benefits to these card holders differ from State to State, but for the purpose of the BSU health budget the benefits for residents in NSW have been used.¹⁶ Public dental care in NSW provides holders of any of the above cards and their dependants with free dental care at dental clinics in a number of public hospitals and Community Dental Clinics.

In practice, however, many people who are in receipt of a health card do not access public dental care. The 1994 *National Dental Telephone Interview Survey* (Carter *et al.*, 1995) found that over 50 per cent of health card holders who visited the dentist visited a private dentist in the 12 months prior to the survey. Additionally, there are waiting lists (currently of up to 18 months) at some public dental hospitals for those wanting a check-up or clean and scale.

For these reasons, it was decided to derive health budgets at the low-cost standard both with and without the inclusion of dental costs. This allows the value of the dental concessions and their impact on the household budget to be identified.¹⁷

Dentures

The data in Table 8.10 summarise the usage and types of dentures among older Australians. It is apparent that more than half of all 70-year-olds have some dentures, and that a full set of dentures is more common than a partial set (upper or lower jaw). The health budgets for the households containing older males and older females thus include a full set of dentures for each.

Information on the lifetime of dentures, provided by the Director of the Dental Health Foundation, indicated that dentures last for approximately 10 years on average, so the total

¹⁶ The 'Save Our Kids Smiles' (SOKS) program in NSW provides a risk assessment at school to all children in kindergarten, grades 2, 4, 6 and 8 and provides free care for those children who are assessed as being in need of dental treatment (NSW Health, 1996). In addition, any child up to year 8 at high school can access free treatment at a public dental clinic if they have a toothache, although it has not been accounted for in the costing of the health care budget.

¹⁷ Discussion and analysis of the low cost budgets in later chapters of this Report exclude the impact of these dental benefit concessions.

Table 8.10: Usage and Type of Denture

	Male	Female
Percentage of persons wearing a denture (age 65+) (DS)	64.8	64.6
Percentage of population who have dentures or false teeth (age 65-74) (NHS)	74.0	84.0
Percentage of 65-74 year old denture wearers with		
- full set in upper jaw (NHS)	19.0	15.0
- partial set in upper jaw (NHS)	17.0	11.0
- full set in lower jaw (NHS)	**	0.0 ^(a)
- partial set in lower jaw (NHS)	1.0	2.0
- full sets in both jaws (NHS)	44.0	57.0
- partial sets in both jaws (NHS)	8.0	6.0

Notes: (a) indicates that the estimate is subject to a relative error of between 25 and 50 per cent.

** indicates nil or subject to sampling error too high for most practical uses.

Source: (DS)—Carter (1995, p. 25).

(NHS)—Derived from ABS, *1989-90 National Health Survey: Health Related Actions*, Tables 24 and 25, pp. 31-32.

cost of dentures was spread over 10 years as is the case with other items whose lifetime exceeds one year. Once again, two versions of the low-cost budget have been derived, as the NSW Pensioner Benefits Scheme enables pensioners access to free dentures and repairs, although it should be noted that the scheme is subject to the availability of funding.¹⁸

Dental Costs

The costs relevant to the dental care budget were derived from information provided by an Education Officer at the Dental Health Foundation of Australia. The prices of dental services in the Hurstville Local Government Area were also collected and were found to be comparable. These costs are summarised in Table 8.11.

Table 8.11: Costs of Dental Care

Service or procedure	Quoted price range	Actually allocated prices
Initial examination	\$50	\$50.00
Filling, simple amalgam, one surface	\$50-\$55	\$52.50
Clean/scale	\$50-\$55	\$52.50
Full dentures (full upper and full lower)	\$650-\$1,000	\$800.00
A course of fixed appliance treatment (braces)	\$3,000-\$3,500	\$3,250.00

¹⁸

This scheme does not exist in all States. For example, in Victoria, there currently exists a co-payment which partly subsidises the cost of dentures, while the Northern Territory does not have a State denture scheme.

Orthodontics

The cost of orthodontic treatment for teenagers was considered for inclusion as a part of the health budget, on the grounds that such treatment is common amongst this group of the population. For example, within the 10-14 year old age group, estimates suggest that approximately 40 per cent of the population have a need for some form of orthodontic treatment, although in practice only around 15 per cent of people of this age actually do have any orthodontic treatment.¹⁹

In light of these figures, it was decided not to include the costs of orthodontic treatment in the health care budget.²⁰

Optical Costs

The health budget includes items for eye care that are based on data derived from the 1995 *National Health Survey*.²¹ The survey identified the percentage of people in Australia wearing glasses or contact lenses by age and sex and it forms the basis for the allocations which underlie this component of the health care budget.

Data from the survey show that the need for spectacles increases with age (Table 8.12). In the light of the 50 per cent utilisation benchmark, spectacles were allocated only to the 40-year-old male and 70-year-old male and female household members. Spectacles rather than contact lenses were chosen because, according to both survey data and information provided by eyewear manufacturers, this is the most common form of prescription eyewear.

Table 8.12: Percentage of People who Wear Contact Lenses or Glasses, by Sex and Age, 1995

Age in years	1_9(a)		10-19		30-39		40-49		70-79	
Sex %	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	3.0	3.8	13.0	22.8	25.8	35.0	53.6	63.2	94.2	96.4

Note: (a) Persons less than one-year-old are excluded from these data.

Source: ABS 1995 *National Health Survey*; special tabulations provided by ABS.

Information provided by optometrists indicated that bi-focal lenses were the most common form of lens for older people, while the 40-year-old would more commonly wear single lens glasses. The budgets therefore reflect this.

¹⁹ The source for these estimates of need and use was personal communication with Associate Professor Barnard.

²⁰ The cost of orthodontic treatment (braces) has been included in Table 8.11 even though these costs are not included in the health budgets. It is worth noting that some of the participants in the focus group discussions, particularly those who were parents, felt that orthodontic treatment is a necessity for many teenagers.

²¹ A special table showing the usage of spectacles by age based on data from the 1995 NHS was provided to the BSU research team by ABS.

The structure of benefits for optometry services provided under Medicare is similar to that for benefits provided for GP and specialist out-of-hospital services, in which Medicare refunds 85 per cent of the schedule fee (Department of Human Services and Health, 1995).

The majority (around 90 per cent) of eye-testing services are bulk-billed (Department of Health, Housing, Local Government and Community Services, 1993). For this reason, the health budgets do not include any costs for optometry services, because Medicare benefits for the costs of lenses and frames are not available, therefore these costs do enter into the budgets.

At the low cost level, the budgets include the cost of a cheaper set of spectacle frames, equal to approximately \$50, while the modest but adequate budgets include an allowance for a set of frames costing the average amount (\$200).²² (See Table 8.13 and the material presented in Appendix 8.B.)

Table 8.13: Costs of Prescription Eyewear

Type of visual aid	Cost of lens		Cost of frames		
	Vision Care	Low cost and modest but adequate	Vision Care	Low cost	Modest but adequate
Bifocals, flat top 28mm CR39	Free	\$120.00	Free	\$50.00	\$200.00
Single vision CR39	Free	\$78.00	Free	\$50.00	\$200.00

Source: Marketing Department at OPSM.

In NSW, an organisation called Vision Care, which is government-funded, provides people who are receiving the pension or unemployment allowances with free prescription eyewear every two years. However, there is an assets test which excludes anybody with more than \$500 (single person) or \$1,000 (married/defacto persons or sole parent) worth of assets (excluding the family home and car). There are similar schemes in other States, although they vary, with some States providing free eyewear and others providing low cost frames.

To reflect these kinds of schemes, two versions of the low cost budget have been derived, one without eye care benefits and the other with the NSW scheme which provides free eyewear every two years.²³ The prices used to derive the eye care component of the health budget were obtained from OPSM in Sydney, although the prices of lenses can vary according to location.²⁴

²² The \$50 cost of spectacle frames for inclusion in the low cost budgets is conservative. Although it is possible to purchase a pair of frames for this amount, retailers indicated that they tend to have very short lifetimes.

²³ Analysis of the total budgets in later chapters of the Report excludes eye care benefits from the low cost health budgets.

²⁴ All Sydney prices for OPSM are standardised, but outside of the Sydney Metropolitan Area the prices differ according to location and the presence of competitors.

According to the optometrists consulted, spectacles typically have a lifetime of around two years. On the basis of this and the Vision Care practice of replacing eyewear every two years, a lifetime of this length was assigned to spectacles.

Pharmaceutical Costs

Not surprisingly, the number of prescription medicines prescribed each year varies according to age and gender, as does the number of visits to the doctor. The data used to quantify this aspect of the budget were derived from the survey undertaken by Bridges-Webb *et al.* (1992) which estimates the prescription rate per 100 encounters with a GP.

These estimates are summarised in Table 8.14 although they may be slightly overstated, because prescriptions given out by doctors are not always filled. However, the prescription rate is still a measure of need, based on the medical profession's opinion of which prescriptions each individual actually requires.

Table 8.14: Rate of Pharmaceutical Prescriptions

Age (years)	Prescription rate per 100 encounters	
	Male	Female
1 to 4	90	92
5 to 14	86	86
25 to 44	83	80
65 to 74	125	130

Source: Bridges-Webb *et al.* (1992).

The morbidity study conducted by Bridges-Webb *et al.* found that prescription rates ranged from 83 to 130 prescriptions per 100 encounters, with the rates varying by age and gender (Table 8.14). Given that these estimates suggest that pharmaceuticals are prescribed in over half of all encounters with a GP, the health budget allows for a number of prescriptions per GP visit derived from behavioural data (see below for details).

Accepting the prescription encounters data as the best that are available,²⁵ these were used to derive an estimate of the actual number of prescriptions included in the health budget by dividing the estimates in Table 8.14 by 100 and multiplying the result by the assumed numbers of GP visits given in Table 8.6 for each age/gender combination.

Having estimated the number of prescriptions required for each individual, the next step involves deciding which drugs are prescribed and how much they cost. It is worth noting here that, in some instances, the type of drug needed also influences the number of prescriptions and hence their cost. Drugs that are part of the treatment for an on-going condition (such as high blood pressure) require the patient to have a continual supply.

²⁵ Even so, it is important to emphasise that the estimates in Table 8.14 are probably biased downwards because they incorporate repeat prescriptions.

²⁶ The budgets thus make no allowance for more than one prescription per visit for younger children, although an allowance is made to cover more of their medical needs in the non-prescription medication component of the budget.

The morbidity study undertaken by Bridges-Webb *et al.* (1992) found that the two most commonly prescribed medications were antibiotics (the most common type being Amoxycillin) and cardiovascular drugs (the most common type being Verapamil). Antibiotics were most commonly prescribed amongst the younger age groups, while cardiovascular drugs were more common among those aged over 65 years (Bridges-Webb *et al.*, 1992).

These findings, summarised in Table 8.15, influenced the prescriptions assigned to each individual in each household, with the lower-priced alternatives being included wherever possible.

Table 8.15: Most Commonly Prescribed Drugs, Percentage of Encounters Where at Least One Drug was Prescribed

Drug type	Percentage of encounters	Drug type	Percentage of encounters
Antibiotic	19.8	Urogenital	2.4
Cardiovascular	11.1	Alimentary	2.9
Central nervous system	10.5	Hormones	2.6
Respiratory	8.4	Ear nose throat	1.3
Musculoskeletal	4.8	Vitamins/tonics	1.1
Psychological	4.1	Eye medication	1.4
Skin preparations	4.4	Contraceptive	1.5
Allergy/immune	4.0		

Source: Bridges-Webb *et al.*, 1992, p. S26

Table 8.16 provides the detail on which types of prescription drugs were assigned to each individual on each of their assumed visits to the doctor, while the cost of the various prescription medications that enter into the budgets are shown in Table 8.17. The prices were taken from the *National Health Acts' Schedule of Pharmaceutical Benefits for Approved Pharmacists and Medical Practitioners* (Department of Health and Family Services, DHFS, 1997).²⁷

For older people for whom extra prescriptions have been allowed (as explained above) the cost has been moderated by the fact that pensioners have a considerable portion of their prescription costs met automatically through their entitlement to a Pensioner Concession Card. This is also the case for those on unemployment benefits who are eligible for a Health Care Concession Card which allows holders to purchase prescription drugs at a lower cost than general patients.

Non-prescription Medications

One further element of health costs is the cost of non-prescribed medications, the usage of which is widespread in Australia and the BSU health budgets thus incorporate this element of

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As announced in the 1997-98 budget, from 1 February 1998 the Commonwealth will only subsidise a set base price within certain therapeutic groups, with any price differential between that price and the price of higher priced drugs (if used) having to be met by the patient. No allowance has been made for this in developing the health budget, which applies to the situation (including prices and policies) prevailing in February 1997.

Table 8.16: Prescriptions Allocated to Each Individual

Individual	Drug type	Number of GP visits per year	Number of prescriptions per year
Female, aged 3	Antibiotic—Amoxycillin	7	6
Female, aged 6	Antibiotic—Amoxycillin	5	4
Male, aged 10	Antibiotic—Amoxycillin	4	3
Male, aged 14	Antibiotic—Amoxycillin	4	3
Female, aged 35	Antibiotic—Amoxycillin	7	6
Male, aged 40	Antibiotic—Amoxycillin	5	4
Female, aged 70	Cardiovascular—Verapamil	10	13
Male, aged 70	Cardiovascular—Verapamil	8	10

Table 8.17: Cost of Prescriptions

Drug type	Age	Cost per prescription (\$)	
		Total cost	Cost to health care card holders and pensioners
<i>Antibiotic—Amoxycillin</i>			
syrup 125mg/5ml	3 years	\$12.58	\$3.20
syrup 250mg/5ml	6 years	\$13.90	\$3.20
capsules 250mg	10 and 14 years	\$10.63	\$3.20
capsules 500mg	Adults	\$13.94	\$3.20
<i>Cardiovascular—Verapamil</i>			
Isoptin SR 240 mg chenner brand	70 years	\$17.40	\$3.20 ^(a)

Note: (a) These prices are slightly below those quoted in the source to this table, although they have been used in the budgets because they represent cheaper brand prices than those actually cited in the source document.

Source: DHFS (1997).

health care costs. Initial analysis of data from the 1989-90 *National Health Survey* revealed that the actual usage of most non-prescribed medications in the two weeks preceding the survey was less than 50 per cent for most age/gender combinations (ABS, 1992c).

Despite this, following the broadly normative approach that has characterised the construction of the health budget, it was decided to include a modest allowance for the use (and cost) of non-prescription medications.

Decisions had to be taken regarding which specific medications to allow for each household, and at what cost. This aspect of the research was guided by advice from pharmacists and GPs and were supported by information on the benefits of non-prescription medication. Vitamin supplements were not included in the health budget, as vitamins need only be taken if dietary intake is inadequate, an assumption that is inconsistent with the BSU food budget described in Chapter 5, which is assumed to provide an adequate diet.

The non-prescription medications that were considered for inclusion in the health budgets were those which assist in the relief of symptoms for the common cold, flu, upset stomach, headache and minor cuts. The final list of non-prescription medications assigned to each individual in each year and an estimate of their cost is shown in Table 8. 18.

Table 8.18: Cost of Non-prescription Medications

Medication	Type	Cost	Amount per person per year
Skin ointment	Child: Bepanthen (Baby care antiseptic cream)	\$8.95 per 100g	1 tube
	Adult: Savlon	\$3. 15per 30g	1 tube
Pain reliever	Child (under 12yrs):		
	Panadol syrup	\$5.95	1 bottle
	Adult: Panadol 24	\$3.95	1 packet
Cough medicine	Anticol—10medicated lozenges	\$1.00	3-year-old—none 6-, 10-year-old— 2 packets 14-year-old and adults — 3 packets
			adults 0.5 bottles
Indigestion powder	Mylanta—antacid original flavour, 500 mls	\$5.50	
Band aids	Johnson & Johnson	\$4.00	children 0.5 packets
	50 sheer		adults 0.25 packets

Each member of each household was assumed to require their own amount of each non-prescription medication, as shown in Table 8. 18. The health budgets for the older households also included the cost of flu vaccine, as health authorities advise older people to take these vaccines. Such vaccines generally cost \$20 each, or \$3.20 for pensioners.

First Aid Kit

Because household accidents are relatively common, a first aid kit is essential for emergencies such as burns, fractures or heavy bleeding. For this reason, all of the BSU health budgets include the cost of a basic first-aid kit as recommended in *Choice* magazine (ACA, 1996). The kits include wound dressing, bandages, scissors, forceps, cotton swabs, disposable hand towels, gloves and an information booklet.

The lifetime of a first aid kit depends on how often it is used, but it was decided that an average kit would have a lifetime of 10 years. The St. John personal/home first aid kit (priced at \$42) was selected for those households with only one or two members, with the St. John family kit (priced at \$82) assigned to households with more than two members.

On the basis of advice contained in *Choice* magazine, pre-packaged kits have been chosen in preference to buying first aid equipment separately, partly because *Choice* suggests the lower priced kits 'could represent better value', but also because although it may be cheaper to buy items for the higher priced kits separately, it would require some shopping around to find the cheapest prices, and, to quote *Choice* again, 'many items in the kit aren't easy to find in a pharmacy'.

Contraception

Survey data indicate that condoms and the contraceptive pill are the two most prevalent forms of contraception chosen by adults aged around 35 to 40 years. The *Contraceptive and Protective Practices Survey* (Reark Research, 1995) found that 30 per cent of females and 31 per cent of males aged between 35 and 44 years reported that condoms had been used by them or their partner in the past 12 months as a form of birth control. Similarly, 24 per cent of women and 32 per cent of men in the same age group reported that they or their partner had used the contraceptive pill as a form of contraception over the same period.

According to survey data, 88 per cent of 45- to 49-year-old females have at one time been on the contraceptive pill (The Research Institute for Gender and Health, 1996, p. 15). The available data also indicate that 47 per cent of 18- to 22-year-old females are currently using the pill as a form of contraception, and around 27 per cent are using condoms for STD/HIV prevention (The Research Institute for Gender and Health, 1996, p. 14).

Based on the available data, it thus appears that both condoms and the contraceptive pill are commonly used forms of contraception in Australia. However, it was decided to include only condoms in the health budgets, not only because of their contraceptive use, but also because they are an effective means of protection against sexually transmitted diseases, including reducing the risk of HIV (NSW Department of Health, 1985).²⁸

Determining the appropriate allocation of condoms per month was difficult due to the apparent dearth of available Australian research on the frequency of sexual activity.²⁹ Without going into questions of the comparability of the methods used in the available studies (briefly summarised in footnote 29), it was decided that condoms should be allocated assuming a usage frequency of eight times per month, with the 40-year-old male and 35-year-old female sharing equally the responsibility for providing the condoms.³⁰

²⁸ The contraceptive pill has been priced as an alternative, so that this form of contraception can also be included in any or all of the BSU health budgets. Triphasi/Triquilar costs \$23.45 for general patients, while those with concessions pay \$9.10. The generic brand (Trifene) is somewhat less expensive at \$17.35 for general patients and \$3.20 for concessional patients (Department of Health and Family Services, 1996).

²⁹ An early study of Australian women found that the 'average rate of sexual intercourse per month [for all married women surveyed] was a little under 10 times' (Bell, 1974, p. 117). However, women in their 30s averaged over eight times a month while women older than 50 averaged 'a little under four times a month'. Overseas studies on the topic vary in their findings. Consistent with the Australian findings for women, an American study reported averages of approximately eight times per month for married (sexually active) adults aged between 35 and 44 (Call, Sprecher and Schwartz, 1995, p.646). In contrast, a French study reports higher frequencies at ages 35-44 and 45-69 (ACSF Investigators, 1992) while British (Wellings et al., 1994) and Swedish (Herlitz, 1993) studies report somewhat lower frequencies.

³⁰ Despite some focus group feedback in which the single females reported that they relied on the male to provide condoms. Professor Doreen Rosenthal at the Centre for the Study of Sexually Transmissible Diseases at La Trobe University, indicated that information from young people suggests the majority of boys and girls consider condoms to be the responsibility of both the male and the female. There is very little research done with people of the ages of the BSU adults (35- and 40-year-olds) but the little research that has been done indicates that there are few differences between these older people and university students in terms of beliefs and behaviour regarding condoms. Professor Rosenthal suggests that it would not be unreasonable to infer that they would have similar views regarding condom responsibility (personal communication).

The 35-year-old female and 40-year-old male have been allocated four condoms per month each, regardless of marital status. This allocation could well be an over- or underestimation of the needs of sole parents, although there is no information to guide decisions in this area.³¹

8.4 Summary Health Budgets

The final low cost and modest but adequate health care budgets for each of the 12 basic household types are presented in Table 8.19. These costs represent the estimated total weekly expenses for each household. Details of each item and the costs of each service are provided in Appendix 8.B.

Since the BSU health budget is based on the assumption that both modest but adequate and low cost health needs are identical, the differences between the two budgets shown in Table 8.19 arise due to (i) the lower costs of medication for Health Care Card holders, and (ii) the costs of spectacles.

As noted earlier, the health budgets reflect the health costs of people who are 'in good health' and thus with minimal health care needs. However, as also explained earlier in this Chapter, there are times when even healthy people need to visit the GP for a simple check-up, or for minor health problems such as a throat infection, skin rash or food poisoning. They may also need short-term treatment, such as antibiotics, medicated cream or an injection.

These types of illnesses and the costs associated with consulting health professionals about them and treating them are reflected in the health budgets, as are those required to meet basic dental needs. The budgets also reflect the increased health care needs of older people, with costs included to cover dentures, spectacles and a somewhat higher number of prescription medications.

The costs associated with the diagnosis and treatment of specific health conditions have not been included in the BSU health budgets because of the assumption that the budgets apply to people in generally 'good health'. Obtaining an average cost of all illnesses would not accurately reflect either the costs of those who are ill or of those who are generally healthy.

The health costs of those who are suffering from an illness, such as multiple sclerosis, cancer or kidney disease vary depending on the stage of the disease as well as the further complications that may arise from the illness. To accurately assess these costs, it would be necessary to identify the expenses associated with each condition on an individual basis. Such calculation of the cost of specific illnesses is beyond the scope of the BSU research.

Regardless of whether people are members of a private health insurance fund, if they have a health problem it can be expected that their health costs will be higher than the health care costs for people who are generally in good health. Medicare assists substantially in regards to health care expenses, particularly for the treatment of acute conditions which require hospitalisation. However, for conditions which require ongoing treatment without the need for

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The available studies suggest that sexual activity can vary with sexual partnership. The English Study cited earlier found that 'those who were married or cohabiting reported much higher frequency of sex than respondents not currently living with a sexual partner' (Wellings et al.. 1994, p. 137). The Swedish study reported lowest median frequencies for single people, with no regular partner, followed by those who are married or cohabiting, while those who are single with a regular partner had the highest median frequencies (Herlitz. 1993. p. 1537).

Table 8.19: Weekly Health Budgets at the Modest but Adequate and Low Cost Standards(a)

Household Types	Modest but adequate standard		Low cost standard	
	With private health insurance	Without private health insurance	With dental and eye care benefits	Without dental and eye care benefits
H ₁ Single female—35 yrs	\$17.72	\$4.36	\$1.16	\$3.12
H ₂ Couple—Male (M) 40 yrs, Female (F) 35 yrs	\$35.26	\$10.77	\$2.11	\$7.27
H ₃ Couple — M 40 yrs, F 35 yrs, girl 6 and boy 14	\$39.99	\$16.23	\$3.21	\$11.30
H ₄ Single female — 35 yrs, girl 6 yrs	\$32.47	\$7.25	\$1.77	\$5.19
H ₅ Aged female — 70 yrs	\$19.53	\$8.49	\$1.92	\$7.05
H ₆ Couple—both 70 yrs	\$37.00	\$16.00	\$2.86	\$13.12
H ₇ Couple — M 40 yrs, F 35 yrs, girl 6 yrs	\$38.40	\$13.74	\$2.80	\$9.42
H ₈ Couple — M 40 yrs, F 35 yrs, boy 14 yrs	\$38.00	\$13.34	\$2.61	\$9.23
H ₉ Couple — M 40 yrs, F 35 yrs, girl 3	\$38.74	\$13.58	\$2.88	\$9.00
H ₁₀ Couple — M 40 yrs, F 35 yrs, girls 3 and 6 yrs, boy 14 yrs	\$42.31	\$18.96	\$3.91	\$12.95
H ₁₁ Couple — M 40 yrs, F 35 yrs, girls 3 and 6 yrs, boys 10 and 14 yrs	\$43.92	\$21.48	\$4.34	\$14.85
H ₁₂ Single female — 35 yrs, girl 6 and boy 10 yrs	\$34.16	\$9.84	\$2.28	\$7.17

Note: (a) The health budgets presented and analysed later in the Report (specifically in Chapters 12 and 14) exclude the cost of private health insurance (modest but adequate) and dental and eye care benefits (low cost).

hospitalisation, there may be substantial out-of-pocket expenses which also need to be considered when costing a budget for those who are ill.

The costs of a number of items that were included in the health budget, in particular those associated with GP visits, optometry visits and some of the cost of medical prescriptions are covered by Medicare. The out-of-pocket costs for those with serious health problems would be even higher without the support of Medicare, particularly for those without private health insurance.

The health care budgets thus highlight the benefits of Medicare in lowering health costs to families, as well as the effect of other public programs such as the publicly-funded eye care schemes, dental programs and access to low cost medications through the Pharmaceutical Benefits Scheme.

The BSU health budgets summarised in Table 8.19 take into account the cost of private health insurance and present the costs of attaining the modest but adequate standard both with and without the costs of private health insurance. Private health insurance reduces the cost associated with a number of health services included in the budget, in particular, dental services

and eye wear, although the actual cost of the insurance premia increases the cost of the health care budget significantly.

Finally, it is important to emphasise that health cost are also influenced by a number of programs that operate at the State level. Because these tend to vary across Australia, it is not possible to include these in any simple representative fashion. Those that have been incorporated apply only in New South Wales, and they are identified as such throughout the text of this chapter in the appropriate places.

APPENDIX 8.A: Estimated Health Service Consultation Rates for Males and Females**Table 8.A.1: Estimated Yearly Consultation Rate with Health Professionals by Age Group, Males Only**

Health Service	Age (years)						
	under 5	5 to 14	15 to 24	25 to 44	45 to 64	65 to 74	75 and over
Chiropractor	0.13(3) **	0.14 **	0.23 **	0.48	0.35	0.22(3) **	0.23 ^(a) **
Osteopath				0.03(3)	0.02 ^(a)		
Naturopath	**	0.03 ^(a)	0.03(3)	0.10(3)	0.07(3)	**	**
Herbalist	**	0.03 ^(a)		0.02(3)	**	**	**
Acupuncturist	**	**	**	0.08 ^(a)	0.03(3)	0.07 ^(a)	*#
Dietitian	**	**	**	0.03	0.05(3)	**	**
Optician	0.07(3)	0.25	0.65	0.30	0.53	0.74	0.88
Physiotherapist	0.06 ^(a) **	0.13	0.33	0.33	0.40	0.47	0.43 ^(a) **
Psychologist		0.12	0.07(3)	0.07 ^(a)	0.05(3)		
Social worker	**	0.10 ^(a)	0.08 ^(a)	0.06 ^(a)	0.02(3)	**	**
Podiatrist	**	0.04(3)	0.03 ^(a)	0.03 ^(a)	0.09 ^(a)	0.45	0.65
School nurse	**	0.17		**	**	**	**
Baby hlth nurse	1.92	0.03 ^(a)		**	**	**	**
Other nurse	0.11 ^(a)	0.03 ^(a)	0.10 ^(a)	0.08(3)	0.11 ^(a)	0.24 ^(a)	0.55

Notes: (a) indicates that the estimate is subject to a relative standard error of between 25 and 50 per cent,
 ** indicates nil or subject to sampling error too high for most practical uses.

Source: Derived from the ABS, *1989-90 National Health Survey: Health Related Actions, Australia*.

Table 8.A.2: Estimated Yearly Consultation Rate with Health Professionals by Age Group, Females Only

Health Service	Age (years)						
	under 5	5 to 14	15 to 24	25 to 44	45 to 64	65 to 74	75 and over
Chiropractor	0.1 ^(a) **	0.06 ^(a) **	0.30 **	0.52	0.54 **	0.27 **	0.22 ^(a) **
Osteopath				0.04 ^(a)			
Naturopath	**	0.03 ^(a) **	0.11 **	0.11	0.14 ^(a)	0.10 ^(a) **	** **
Herbalist	**			0.04 ^(a)	0.03 ^(a)		
Acupuncturist	**	**	0.06(a)	0.08 ^(a)	0.08 ^(a)	0.06 ^(a)	0.11 ^(a)
Dietitian	**	**	0.03 ^(a)	0.07 ^(a)	0.16 ^(a)	0.07 ^(a)	**
Optician	0.09	0.23	0.52	0.37	0.7	0.91	0.81
Physiotherapist	0.12 **	0.15	0.27	0.45	0.52	0.61 **	0.67 **
Psychologist		0.03	0.08 ^(a)	0.12	0.04 ^(a)		
Social worker	0.06 ^(a) **	0.08 ^(a)	0.10 ^(a)	0.10	0.08 ^(a)		0.19 ^(a)
Podiatrist		0.03 ^(a)	0.03 ^(a)	0.06 ^(a)	0.25 ^(a)	0.65	1.25
School nurse	**	0.15	0.02 ^(a)	**	**	**	**
Baby hlth nurse	2.10	**	0.02 ^(a)	**	**	**	**
Other nurse	0.0 ^(a)	**	0.18	0.13	0.09 ^(a)	0.22	0.65

Notes and Sources: See Table 8.A.1.

APPENDIX 8.B: List of the Prices of Services and Products Incorporated into the BSU Health Budget

Service	Description	Additional Information	Costs Allocated in Health Budget	Private Health Insurance Rebates
Specialist	Average service per patient	December quarter 1996	\$9.34	
	Out of pocket costs (85% paid by Medicare)	<u>Scheduled Fee</u> <u>Out of Pocket Costs</u>		
	initial visit (104)	\$62.85 \$9.40		
	subsequent visit (105)	\$31.45 \$4.70		
Dental		<u>Dental Education Officer</u> <u>Hurstville LGA</u>		
	Examination simple filling	\$50 \$30 to \$50	\$50	\$21
	simple amalgam, 3 or more surfaces	\$50 to \$55 \$50	\$52.50	\$29
	clean/scale	\$80 to \$100 \$100		\$30
	upper dentures			\$23
	upper and lower full dentures	\$650 \$410 to \$440	\$800	\$260
				\$520 (\$260 for upper; \$260 for lower; maximum; \$550)
Medication	Amoxycillin—cheapest brands		<u>Health Card</u>	
	syrup 125 mg/5ml		\$12.58	\$3.20
	syrup 250 mg/5ml		\$13.90	\$3.20
	capsules 250 mg		\$10.63	\$3.20
	capsules 500 mg		\$13.94	\$3.20
	Verapamil		<u>Pensioner</u>	
	Isoptin SR 240 mg		\$21.00	\$4.20
	Cheaper brand		\$17.40	\$3.20
	Flu vaccine		\$20.00	\$3.20
Non-prescription	Skin ointment			
	Children—Bepanthen (100g)	Baby care antiseptic cream	\$8.95	
	adults—Savlon (30g)		\$3.15	
	Paracetamol			
	children (under 12 yrs)	Panadol syrup	\$5.95	
	adults	Panadol 24	\$3.95	
		Panadeine 50	\$8.50	
	Band-aids	50 sheer	\$4.00	
	Johnson & Johnson	100 sheer	\$6.90	
	Mylanta—antacid	Original flavour 500 mls	\$5.50	
	Cough Lollies	Anticol—10 medicated lozenges	\$1.00	
Contraception	Condoms Affinity regular	12 per pack	\$5.79	

APPENDIX 8.B: List of the Prices of Services and Products Incorporated into the BSU Health Budget (Continued)

Service	Description	Additional Information	Costs Allocated in Health Budget	Private Health Insurance Rebates
Glasses (life-time: 2 years)	<u>Lenses</u> grind Bifocals flat top 28 mm CR 39 <u>Reading</u> single vision CR 39	\$100 \$120 \$70 \$78	\$120 \$78	\$138 (Bifocal lens & frames) \$121 (Single vision lens & frames)
	<u>Frames</u>		Low Cost	Modest <u>but</u> <u>Adequate</u>
	Range	\$50 to \$400	\$50	\$200
First-aid kit	St. John's Personal/home K0453 Family K0441	(1 or 2 person household) (Households with 3 or more people)	\$42.00 \$82.00	
Insurance (source: Medibank Private NSW Brochures I996a: 1996b)	<u>Couple with children</u> <u>family cover</u> blue ribbon saver (level 2) Super extras TOTAL per year		\$828.00 \$688.90 \$1,516.90	
	<u>Single</u> blue ribbon saver (level 2) Super extras TOTAL per year		\$413. 95 \$344.45 \$758.40	
	<u>Couple</u> blue ribbon saver (level 2) Super extras TOTAL per year		\$771.70 \$688.90 \$1,460.60	
	<u>Single parent with</u> <u>children</u> blue ribbon saver (level 2) Super extras TOTAL per year		\$735.20 \$688.90 \$1,424.10	
Specialists		Scheduled	Out of	
Out of pocket costs	initial visit (104)	Fee \$62.85	Pocket Costs \$9.40	
Chiropractors	Chiropractors Association Initial consultation New patient: 20 min History & examination History & examination Standard consultation (15 minutes)	S56 S68 S34		S25 per treatment; maximum \$30(per year
Physiotherapy	APA Recom.	<u>Range</u>	<u>Average</u>	\$23 per treatment;
	Initial Follow up	\$45 - \$48 \$35 - \$38	\$46.50 \$36.50	maximum \$700 per year
Podiatry	Visit	\$30 to \$35	\$32.50	\$22 per treatment; maximum \$20(per year

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CHAPTER 9 : THE TRANSPORT BUDGET*

9.1 Introduction

The transport budget is based on a combination of normative judgements and behavioural data. It is applied to households living in Sydney, and where there is a need to be specific, living in the Hurstville Local Government Area (LGA).

The pattern of observed transport costs amongst Australian household is bimodal, depending on whether the household owns a car or not. The majority of Sydney households are car owners. Car-owning households spend substantially more on transport than households without, primarily due to the fixed costs of car ownership e.g. the purchase price of the car, and the costs of insurance, registration and appropriate servicing and repairs. Running costs, including road tolls, parking costs, fuel, oil and some repairs, do not differ substantially from public transport costs. If anything they are cheaper.

It follows that the transport budget is very sensitive to whether or not the household is assumed to own a car. For BSU purposes, it has been assumed that each household owns a car, an assumption which should not be lost sight of when interpreting the final results. (A transport budget has also been derived for the 70-year-old single woman on the assumption that she does not have a car, which is the more probable situation for women of this age, in order to assess what impact this has on her overall transport costs).

As with all other component budgets, transport budgets have been derived for the 12 basic BSU household types described earlier at both the modest but adequate and low cost standards.

9.2 Describing the Transport Needs of Households

In constructing the transport budget, a number of assumptions have been made about the travel-related aspects of the lives of each household member. The following paragraphs describe these assumptions and, where relevant, provide a justification for them.

* This budget was prepared by Jenny Chalmers. She would like to thank several individuals and agencies for providing advice and assistance during the development of the budgets described here. Special thanks are due to the Environment and Energy Statistics Area within the Australian Bureau of Statistics (ABS) for providing data on car ownership and usage. ABS staff Mark Nelson and Brian Murray were especially helpful. Thanks are also due to the Transport Research Centre at the Royal Melbourne Institute of Technology for preparing a quotation for travel data and analysis from their Victorian Activity and Travel Survey. Similarly, thanks are extended to the ABS for quoting on data from Transport Patterns and Preferences. Several staff from the NRMA and AAMI provided information on car insurance premiums, and staff at the Roads and Traffic Authority (RTA) provided advice on registration costs. Information on transfer of registration and advice on other information sources was provided by Frank Calabro from the RTA. Thanks are also due to Colin Dyer (NSW Department of Transport) and Allan Mohr and Graham Harper (State Rail Authority) for their description of NSW public transport concessions. Staff at Baby Things (Kensington) and RTA information lines were valuable sources of information on child restraints. Staff from Glass's Guide Pty Ltd and Red Breast Pty Ltd provided invaluable information on second-hand car prices and depreciation of cars. Finally, thanks are also due to Rodney Vaughan (Rodney Vaughan and Associates) for his advice on the ageing of cars and passenger safety in accidents.

Place of Residence

It has been assumed that the BSU households are based in suburbs similar to those in the Hurstville LGA, with the modest but adequate households situated closer to the main Hurstville shopping centre than the low cost households, and where the local shops and services are equidistant from the low cost and modest but adequate households.

It has also been assumed that the households are serviced by trains, private bus services and by a limited number of government bus services.¹ These assumptions, though realistic for households living in the Hurstville LGA are not always so relevant to many other Australian households, and this needs to be kept in mind.

Place of Work

Places of work of employed people are not in a specific area. However, it has been assumed that household members travel the same distance to work as the average Sydney worker. As a guide, that distance is roughly consistent with travelling from Hurstville to central Sydney by train.

Looking for Work and Meeting Department of Social Security (DSS) Requirements

Unemployed household members have been allocated trips to the local DSS office, to the Commonwealth Employment Service (CES) and to undertake job search activities such as attending a job interview.

Advice from the DSS, CES and various Job Clubs indicated that the number of trips made, and distances travelled on these trips, varies markedly for different unemployed persons. In light of this, it was assumed that the unemployed travel to the main Hurstville shopping centre to visit the DSS and CES, and travel the same distance to attend job interviews as does the worker when travelling to work.²

Shopping, Doing Business and Health Care Trips

Households are assumed to shop weekly for food and groceries etc. at the Hurstville shopping centre, regardless of the number of household members and regardless of whether they are at the low cost or modest but adequate standard.³ In addition, each household has been allowed one major shopping trip per year, warranting a larger amount of travel, in order to shop for a new washing machine, for example.

Households are assumed to regularly visit the local shopping centre to buy milk, newspapers, hire videos, pay bills, visit the doctors, and so on. The number of medical trips varies by household, since the number of trips required by each individual is determined in the health budget (see Chapter 8). The number of all other trips to the local shopping centre is fixed, regardless of household type or standard of living.

¹ In order to access the train service, it is assumed that individuals must drive or take a private bus to the train station. Private bus services in the Hurstville LGA operate infrequently at night and at the weekend.

² Following the formation of Centrelink in September 1997, there may be changes associated with job search travel, although these have not been factored into the BSU transport budget.

³ All households are assumed to shop at the same shopping centre because, according to other BSU budgets (e.g. the food and household goods and services budgets described in Chapters 5 and 7, respectively) they face the same prices.

Attending School

School age children attend schools situated where they can travel to school by bus free or can be taken to school by their parents.⁴ It is assumed that the 14-year-old boy travels to school by free bus. The girl aged six and the boy aged 10 are assumed to be driven to school by their parents and/or by family friends. If their parents work, it is assumed that school is en route to the parents' places of employment. Non-working parents must make a special trip to school.

Leisure

The BSU leisure budget (see Chapter 10) has been used to guide decisions concerning the number of spectator sport and cultural trips undertaken each year by each household member. Households are assumed to travel to central Sydney for such activities. The leisure budget also allocates an annual holiday (by car) for households at the modest but adequate standard, and a similar holiday for low cost households every three years. In addition, each household is assumed to make two one-day trips each year to places such as the Blue Mountains.

Regular trips to visit family and friends are also incorporated into the transport budget, as are trips to visit and assist elderly relatives. All households have been allocated the same number of journeys and distance travelled, regardless of the standard of living. However, the number of trips varies with the number of children in the household, since journeys specifically for the children (for example, trips to attend friends' birthday parties) are included. Adults are also allocated occasional trips for evenings out.⁵

Time constraints that arise from transport needs are introduced into the analysis via the leisure budget. Furthermore, since households are assumed to share a single car, the activities of the members in the household are constrained by access to the car. Hence, it has been assumed that couple households make the same number of leisure trips, including those to visit friends, as single person households.

9.3 Modes of Travel

Car Ownership

Data presented by the ABS (1997a) survey indicate that 81 per cent of Sydney households had a registered car garaged or parked at their household in April 1996.⁶ Furthermore, 38 per cent of Sydney households had at least two registered cars at that time.⁷ In the face of this evidence,

⁴ All children up to grade two can travel free regardless of how far they live from their school. Children in grades three to six must live outside of a circle of 1.6 km radius from the school, whilst children attending high school must live outside a circle of radius 2 km.

⁵ It should be noted that the transport budget assumes that single mothers make the same number of outings as married mothers, even though it is acknowledged that the single mothers do not have husbands/partners to baby-sit. No allowance has been made for baby-sitting fees in the household goods and services budget (see Chapter 7), so it is implicitly assumed that single mothers call on friends for baby-sitting and reciprocate by occasionally baby-sitting for their friends.

⁶ This figure includes cars owned by the business where adults work.

⁷ The Australian Institute of Family Studies (AIFS) Australian Living Standards Survey (ALSS) reported that 95 per cent of families with children living in Ryde (a similar Sydney suburb to Hurstville) had access to at least one car. The average age of that car was 10.4 years and its average value was \$13,753. Fifty one per cent of households included in the ALSS had a second vehicle.

one car was allocated to every BSU household, at both the modest but adequate and low cost standards.⁸

Croft (1996, p.4) notes that, 'high car dependency for both work and non-work purposes is prevalent throughout metropolitan Sydney, especially for people living in Sydney's middle and outer suburbs'. Approximately half the Sydney sole parent focus group participants (whose income source was predominantly pensions) reported that they were obliged to do without a car. This was felt to be a real burden, especially at weekends when public transport services tended to be less frequent (Griff, 1997).

Indeed, disaggregated data for different households indicate that motor vehicle ownership rates vary markedly with age, household size and possibly household income. As Table 9.1 shows, over 50 per cent of couples with two or more children have at least two cars garaged at their place of residence. However, subsequent analysis of the ALSS data, (AIFS, 1995) reveals that a significant proportion of the cars of households with dependent children living in Penrith, Campbelltown, Ryde and South Sydney are business vehicles.

Table 9.1: Number of Registered Vehicles Usually Garaged/Housed at Sydney Dwellings^(a)

Number of Cars	Percentage of households							
	Young Couple	Retired Couple	Couple with One Dependent Child	Couple with Two Dependent Children	Couple with Three Dependent Children	Young Single Female	Retired Single Female	
0	9.6	12.7	6.0	1.2	5.2	25.4	70.4	
1	41.9	71.0	49.6	38.0	42.3	71.4	29.6	
2+	48.4	16.3	44.1	60.8	52.5	3.2	0.0	

Notes: (a) There were insufficient numbers of sole parents surveyed to provide reliable figures. The young female is aged between 30 and 40 years. The retired female is aged between 65 and 75 years. The age of the respondent in the retired couple also falls in the 65 to 75 years range. The respondent in the childless couple is aged between 30 and 40 years. Dependent children are aged 15 or under.

Source: ABS. 1997a

It was thus assumed that less than 50 per cent of couples with two or more children have at least two *privately owned* cars. At the other extreme, only 30 per cent of retired single females had a car garaged at their house. In the light of the data on car ownership, it was assumed that all households have one car, but an alternative budget for the 70-year-old single female was calculated on the assumption that she does not have a car.⁹

⁸ The BSU low cost households are situated in public housing located in the Riverwood Estate in the Hurstville LGA (see Chapter 3). That area is serviced by a railway line, but the closest station is beyond walking distance for those with shopping to carry and/or small children to escort. One private bus stops nearby the estate, although that bus line has infrequent, if any, services at night and on the week ends.

⁹ Further analysis of the BSU budgets presented in later chapters assume that the 70-year-old female does own a car.

Age and Type of Car

The age of the car owned by households at the modest but adequate standard was assumed to be equal to the median age of cars garaged or parked at Sydney households in April 1996. The age of the car owned by the low cost household was assumed to be the age of the car at the 75th percentile of the age distribution of such Sydney cars.

Table 9.2 shows that the median age of the average Sydney car is seven to 10 years and that the car at the 75th percentile is aged 11 to 13 years. Calculations reveal that the exact ages are eight and 12 years, respectively. This means that the modest but adequate car was manufactured in 1989 and the low cost car was manufactured in 1985, given that the BSU budgets apply to February 1997.

Table 9.2: Proportion of Cars Garaged or Parked at Sydney Homes by Age of Car

<u>Age category</u>	Percentage	Cumulative percentage
0-6 years	41.8	41.8
7-10 years	20.5	62.3
11-13 years	16.9	79.2
14-16 years	13.3	92.5

Source: ABS, 1997a.

ABS survey data indicates that the majority of cars driven by Sydney-siders are four-cylinder cars (ABS, 1997a).¹⁰ This survey also shows that the most popular four-cylinder cars were the Ford Laser, Toyota Corolla, Mitsubishi Magna, and Toyota Camry. Three types of four cylinder car were allocated to the BSU households: a Toyota Corolla; a Toyota Camry; and a Mitsubishi Nimbus. The precise allocations to each of the 12 basic BSU household types are shown in Table 9.3.

As can be seen from Table 9.3, the type of car allocated was determined on the basis of household size. Thus, the childless households and households with one and two children were all allocated Toyota Corollas. The households with three children were allocated Toyota Camrys, while the household with four children was allocated a Mitsubishi Nimbus.

It is important to recognise that there are repercussions from assuming that the BSU households own relatively old cars. In general, the older and more solid the car, the worse the effect on passengers involved in a car accident. Newer cars are designed to crumple on impact, thus absorbing much of the force of the impact.¹¹

Car Sharing Within the Household

ABS data shows that the majority of Sydney workers travel to work by car (ABS, 1997b). Full-time workers in the BSU households have therefore been assigned priority over the use of

¹⁰ Overall, the most popular car driven by aged Sydney-siders and couples with children was the Holden Commodore/Calais. However, this car has eight cylinders.

¹¹ With regards to whether older cars are more likely to be involved in accidents, regardless of how often they are driven and who drives them, the NSW Roads and Traffic Authority report that such analysis has yet to be undertaken.

Table 9.3: Car Allocations by Household Type

		Modest but Adequate	Low Cost
H ₁ :	Single female—35 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
H ₂ :	Couple—male 40 years, female 35 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
H ₃ :	Couple—male 40 years, female 35 years, girl 6 years, boy 14 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
H ₄ :	Single female—35 years, girl 6 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
H ₅ :	Aged female—70 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
H ₆ :	Aged couple—both 70 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
H ₇ :	Couple—male 40 years, female 35 years, girl 6 years	Toyota Camry—8 years old	Toyota Camry—12 years old
H ₈ :	Couple—male 40 years, female 35 years, boy 14 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
H ₉ :	Couple—male 40 years, female 35 years, girl 3 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old
HIQ:	Couple—male 40 years, female 35 years, girls 3 and 6 years, boy 14 years.	Toyota Camry—8 years old	Toyota Camry—12 years old
H _M :	Couple—male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	Mitsubishi Nimbus—8 years old	Mitsubishi Nimbus—12 years old
H ₁₂ :	Single female—girl 6 years, boy 10 years	Toyota Corolla—8 years old	Toyota Corolla—12 years old

the car during the working week. Studies have shown that women in single car households are less likely than men to have use of the car during the day, with men taking the car for their, journey to work (Pickup, 1984; Rutherford and Wekerle, 1988).

In the majority of the modest but adequate couple households, where both adults work full-time, it has been assumed that couples travel to work in the same car. En route to work, the working couple and the working single females with children are also assumed to drive the six- and 10-year-old children to before-school care and drive the three-year-old child to the child care centre. After work they drive home via the after-school care and long-day care centre. As noted above, the 14-year-old boy is assumed to go to school by (free) bus.

The majority of the younger adults in the low cost households are either unemployed or not in the labour force. It is assumed that there are no conflicts between the child-related and job seeking activities of these adults. Even when unemployed, job seeking activities are not as time-consuming as maintaining full-time employment, hence those out of work are assumed to be freer to make trips for their children as the need arises.

However, there are three households in which conflicts over competing needs for the family car could arise. In household types H₇^{(f)(g)}- (at the modest but adequate standard) and H₇^{(c). (d). (e). (h). (i)} (at the low cost standard), the adult female is unemployed or not in the labour force whilst the male works.

The wife in these households is assumed to be based at home for four days per week, without access to the family car, totally reliant on public transport or taxis. However, one day each week the male is assumed to travel to work by public transport so that the wife has access to the car.

It is significant in this context that the present public transport systems in Australia tend to prioritise the peak journey to work (Little, 1994). Accordingly, 'Sydney's transport system is designed primarily to transport workers during peak hours between the suburbs and the city centre. Off-peak services, and intra- and inter-suburban travel is significantly less well catered for' (Croft, 1996, p. 16).

In household type H₇^{UM} ' (at the modest but adequate standard), the female works part-time (three days a week—between 9.00a.m. and 3.00p.m.), while the male works full-time. The female is assumed to travel to work by car with her husband, dropping her daughter at school on the way. She then returns home by car, picking the child up from school, while her husband returns from work by public transport. One day each week, the male travels to work by public transport so that the female has access to the car for shopping and other needs, and in order to make trips for her daughter.

Evidence of the impact of car ownership on the lives of women in Sydney is provided by the study by Dowling and Gollner (1997), who interviewed 30 women living in the Hills district of Sydney, the Central Coast and Sydney's inner south west between December 1996 and May 1997 to 'investigate how family and work activities impinge on travel needs'. They found that many of the interviewed women viewed access to a car as integral to their daily lives.

These women described the car as a management tool, being used strategically to manage daily routines. These routines were spatially complex and time was at a premium. The car also allowed women to accomplish other family and individual goals. It helped them to ensure the safety of their children, fulfil expectations of themselves as parents, and to overcome potential social isolation in dormitory suburbs.

One married woman (not in the labour force), with a young child described her day thus:

'I will take my husband to work in the mornings and pick him up in the afternoons,..then I come home and then I have swimming. And then we come home and then we go to a meeting and then we come home, and I might get something from the shops in the afternoon. I usually get that on the way to going and picking my husband up in the afternoon, and then we come home' (Dowling and Gollner, 1997, pp. 19-20).

Another woman with two small toddlers, explained her difficulty getting by with very limited access to the family car. Her husband used the family car to drive to work because his journey was not serviced by public transport. Because she did not see public transport as child-friendly, her strategy was to shop locally and make sure her children's pre-school was within walking distance of the home. One day a fortnight, she would drive her husband to work and use the car for major grocery shopping and business she could not do locally.¹²"

In assigning travel profiles to the various BSU households, the potential time constraints have generally been ignored. The travel needs of children are assumed to be met equally regardless of whether both parents work full-time in the labour market, or whether one parent is unemployed and the other is not attached to the labour market. However, some trade-offs in transporting of children amongst households have been assumed.

¹²

It should be noted that this pattern of behaviour does not fit the BSU food budget, which assumes that all food is bought at supermarket outlets located in major shopping centres.

For example, those parents who work full-time are assumed to transport their own children, and those of their friends who have less attachment to the labour market, on week-ends. In turn, their children are assumed to be transported during the week by friends with less attachment to the labour market. This assumption is made in the interests of maintaining consistency in the experiences of children regardless of their parents' attachment to the labour market.

The overall picture that emerges from this discussion of the car utilisation patterns within the household is one characterised by a constant juggling of tasks in order for households (particularly where there are children and one or both parents are in employment) to be able to fulfil all of their regular tasks with only one car. Two cars would substantially ease these time constraints, but would also impose further considerable costs on the household budget (see below).

9.4 Elements of the Transport Budget

Depreciation

Like the UK transport budget (Hicks and Ernst, 1992) the BSU transport budgets assume that the annual cost of owning the car is represented by the annual depreciation in the car's value. This is the transport equivalent of the approach used elsewhere in the research in relation to other durable commodity lifetimes.

Ideally, a representative car ownership history should be constructed for each household. However, although there exists a justifiable methodological approach for determining the average age of cars at both the modest but adequate and low cost car levels (as outlined above), it was not possible to access NSW Roads and Traffic Authority car registration data to reveal the purchase and resale patterns of car owners. Even if that information were available, the car resale would occur at a point in the future, so that the resale price would need to be forecast.

The price of used cars varies with depreciation, inflation and with demand and supply conditions in the used-car market. In the current climate, predicting inflation may be relatively easy; however, predicting the depreciation rate of an individual car is a complex and time-consuming problem.

Hence, the advice of staff from Australia's two main documenters of new and used car prices, Glass's Guide Ltd and Red Breast Ltd, was followed in assuming that the value of a car, similar to those allocated to the households, 'depreciates' by roughly 50 per cent in its first five years, by 8.5 per cent annually over its next five years, and thereafter by 4.5 per cent per year. These 'depreciation' figures are assumed to incorporate the standard notion of depreciation, inflation and changes to the used car market.

The first task in determining the actual cost of 'depreciation' was to calculate a value for each car. It was first assumed that each car's value is represented by its purchase price in February 1997. Data from the Roads and Traffic Authority presented in Table 9.4, shows that the majority of cars purchased by private owners are purchased from dealers.

Hence Glass's Guide (hereafter simply Glass's) dealer prices (reported in *Which Car?* 1997) were used for the first quarter of 1997 to represent the purchase price of modest but adequate cars.

Table 9.4: Transfer of Second-hand Passenger Vehicles to Private Owners in NSW in 1996

Transfers to private owners from...	Percentage of all passenger vehicles transferred to private owners
Business	4.2
Dealer	50.4
Private owner	45.4

Source: NSW, RTA.

It was assumed that low cost cars were purchased privately, so Glass's private market prices were used to represent the purchase price of low cost cars.¹³

Table 9.5 reports the purchase prices, depreciation rates and annual depreciation for each car included in the BSU transport budgets.¹⁴

It was not possible to locate a data source which indicates whether private owners predominantly pay for their cars outright or by taking out a loan. Sydney focus group respondents tended to own their cars outright, so this was assumed to be the case in all BSU households. The cost of the transfer of registration was included as part of the cost of purchasing the car: in February 1997, the RTA charged a transfer of registration fee of \$20 plus three per cent of the purchase price.

Table 9.5: Calculating Annual Depreciation of the Household Car

	Purchase price of car in February 1997 (\$)	Depreciation rate (%)	Annual depreciation (\$)
Toyota Corolla 1985	4,500	4.5	203
Toyota Corolla 1989	10,000	8.5	850
Toyota Camry 1985	7,500	4.5	338
Toyota Camry 1989	13,000	8.5	1,105
Mitsubishi Nimbus 1985	7,000	4.5	315
Mitsubishi Nimbus 1989	16,500	8.5	1,403

Source: *Which Car?* (1997) and discussions with the staff of Glass's Guide Pty Ltd and Red Breast Pty Ltd.

¹³ Glass's is one of the two main companies which record new and used car prices in Australia. The other company is Red Breast Pty Ltd. The car price records of both companies are used by car insurance firms to inform them of replacement costs of insured cars. Red Breast Pty Ltd does not record dealer prices.

¹⁴ It is worth noting that the majority of respondents in the Sydney BSU focus groups drove older, second-hand four-cylinder vehicles than those listed in Table 9.5 and often expected to keep them until they literally 'fell apart' (Griff, 1997). Cars belonging to Sydney couples with children tended to be five to eight years old, older peoples' cars were between 12 and 15 years old, sole parents' cars ranged from five to 16 years old and single people's cars were between 14 and 22 years old, except for the one person who had recently bought a new car (Griff, 1997).

Insurance, Registration, Driving Licences, NRMA Membership

The Australian Consumers Association (1995a) in *Choice* magazine identifies the following four types of insurance available to Sydney drivers: compulsory third-party; third-party property; third-party fire and theft; and comprehensive cover. At the very minimum, in NSW a car must carry third-party personal-injury insurance (known as the 'green slip') to cover the victims of accidents caused by its driver. The third-party property damage insurance covers damage caused by the insured's car, but not damage done to it.

Some companies offer third-party property plus coverage i.e. normal cover for third-party property as well as for up to several thousand dollars' damage to the insured's car if the accident is caused by another driver who is both uninsured and at fault. Third-party fire and theft covers any vehicle that the insured's car hits and also covers the insured if his/her car is stolen or vandalised by fire. It is dearer than straight third-party but cheaper than comprehensive insurance. Comprehensive insurance covers any damage to the vehicle.

The cost of third-party personal insurance through AAMI in February 1997 was equal to \$366 per car, a representative rate in Sydney. The cost for pensioners was \$348 per car. In addition, comprehensive insurance was allocated to modest but adequate and low cost households, on the basis that the study by AIFS and the Transport Research Centre at the Royal Melbourne Institute of Technology (1995) reports that 88 per cent of Sydney families (all with children) had comprehensive car insurance coverage.

Based on the budget standards 50/75 ownership per cent rule (see Chapter 2), all households (at least those with children) should thus be allocated comprehensive insurance. Furthermore, since the budgets make no allowance for the cost of any accident repairs, comprehensive insurance coverage appears to be essential.

Households were assumed to obtain their comprehensive insurance from the NRMA, since its rates are 'middle-of-the-road' in the Sydney market. All drivers are assumed to have the maximum no claim bonus, following advice from NRMA that this is most common. Table 9.6 summarises the overall car insurance costs.¹⁵

Table 9.6: Annual Costs of Insurance by Type of Car in February 1997

	Value of car: Glass's 'private market' value (\$)	Comprehensive Insurance (NRMA) (\$)
Toyota Corolla 1985	4,500	317.85
Toyota Corolla 1989	8,000	463.90
Toyota Camry 1985	7,500	428.40
Toyota Camry 1989	10,700	522.85
Mitsubishi Nimbus 1985	7,000	418.00
Mitsubishi Nimbus 1989	13,500	631.60

Source: *Which Car* (1997).

¹⁵ Third-party property insurance with the NRMA was \$261.85 in February 1997, regardless of household type.

In line with the treatment of house insurance in the BSU housing budget (Chapter 3), it was decided to allocate households at the low cost standard similar car insurance policies to those allocated to households at the modest but adequate standard. The difference in car costs between low cost and modest but adequate is thus inherent in the value of the car. It was therefore assumed, for example, that households at both standards of living should receive from their insurance policies the same percentage value of their respective cars if they were stolen.

Vehicle registration was costed at the February 1997 RTA rates for vehicle type, for a household living in the Hurstville LGA. For the Corolla, this was \$213 per year and for the Camry and Nimbus \$230 per year. Those with pensioner concession cards do not have to pay for the registration of their car. It was assumed that the low cost sole parent households and modest but adequate and low cost age pensioner households have access to pensioner concession cards and thus are not required to meet registration costs.

In NSW, the annual cost of a driving licence decreases with the length of time over which it is purchased. Low cost and modest but adequate households were each assumed to purchase a five year licence, at an annual cost of \$22. Those with pensioner concession cards do not have to pay for their licence.

Each household was assumed to be an NRMA member, enabling them to use the NRMA roadside car repair service, at a cost of \$44 per year. Household members were assumed not to be trained motor mechanics and hence not equipped to make on-the-spot diagnostic decisions regarding car maintenance. In these circumstances, NRMA membership is virtually essential.

Cleaning Car, Keeping Car Secure and Accessories

A travel rug, seat covers, car mats, a jack, steering lock and street directory were allocated to the owners of every car. The lifetimes for each of these items were assumed to be five to six years for the modest but adequate households and at least double that for low cost households. All items were priced at Target. The advice of ACA (1996) was followed in selecting a Premier Club steering wheel lock and middle-of-the-range priced versions of each of the other items were selected.

All working-age households were assumed to clean their own cars and were thus allocated a chamois, a sponge, washing fluid, cut and polish cream, stubborn stain remover and interior cleaner. Modest but adequate households were assumed to wash their cars once per month and low cost once every two months.

Retired households were allocated two-commercial car washes per year at the modest but adequate standard and one per year at the low cost standard, since they travel less distance and professional car washes are assumed to be more thorough. Local Hurstville car washes, including a vacuum and complete interior clean, were priced at around \$20.

Distance Travelled by Car

There are two main methods of calculating the average distance travelled by car each year. The first is based on distances travelled derived from an ABS survey (ABS, 1997a) of Sydney households, and the second involves a detailed calculation based on the assumed travel patterns of each household. The assumed travel pattern methodology has been followed, since it is easier to modify with variation in assumptions about household travel patterns.

As described in Section 9.2 above, the following reasons for travel were identified in developing the transport budget: work; looking for work; local shopping; shopping centre trips; shopping for major purchases; business and medical purposes; leisure reasons (adult and children); visiting family; helping elderly relatives; to attend cultural and sporting events; and travel associated with the annual holiday.

Appendix 9.A outlines in detail the number of trips and kilometres travelled for each 'reason for travelling' by each of the 12 basic BSU households at both the modest but adequate and low cost standards.

This Appendix combines the assumptions about the households' lifestyles, described in Section 9.2, with information derived from a survey of women living in the Bankstown LGA, the western suburbs of Sydney which provides a detailed guide to the distances travelled by the average Sydney household and the frequency of trips made when making such trips (Croft, 1996).¹⁶

Travel to Work and Looking for Work

In October 1996, 76 per cent of employed persons living in the Sydney, Newcastle and Wollongong region used a motor vehicle or motor cycle as their main form of transport to work (ABS, 1997b). Only 19 per cent travelled to work by bus or train. Of all the people in the region who travelled to work by motor car or motor cycle, only 12 per cent did so because public transport was unavailable, while 35 per cent gave the reason that public transport was slower, and 26 per cent preferred to use a motor vehicle or motor cycle because they could make the trip whenever they liked.

Convenience and time are thus key determinants of the chosen mode of transport, rather than the availability of public transport and/or environmental considerations. Data provided by the ABS (from ABS, 1997a) enabled the determination of the average distance travelled by Sydney-siders when going to and from work. For one worker, this was set at a 20.2 km round trip, which is the average for a single female aged between 30 and 40 years of age. For couples, the distance was set at 34.3 km, which is the average for a couple without children in which the respondent is aged between 30 and 40 years.

As explained earlier, unemployed people are assumed to travel to the DSS and CES once per fortnight. Both offices are situated near the Hurstville shopping centre. Once per week, the unemployed person has a job interview or drives to a workplace to discuss employment. The distance to that workplace is assumed to be the same as the journey to work for the single worker. Couples are assumed to share trips to the DSS and CES, even though they have different job seeking needs.

Other Travel

Croft (1996) reported that the majority of women surveyed travel less than 5 km to go to the local shopping centre, local shops and to doctors. It was therefore assumed that the round-trip distance of a visit to the local shops is 5 km. The round-trip distance of a trip to the shopping

¹⁶ The object of Croft's survey was to determine the extent of the access to transport of women living in the area, the types of strategies they used to overcome transport-related problems and the roles that various modes of transport play in the lives of these women. She surveyed 100 women (in April 1995) using a stratified random sampling technique to ensure an appropriate representation by Census collection district. Non-working women were over-sampled, and non-English speaking women under-sampled.

centre was set at 10 km for households at the modest but adequate standards and 15 km for low cost households, based on observations of the spatial patterns within the Hurstville LGA. The round-trip distance of medical/personal business was set at 10 km.

Croft's survey showed the majority of women travel further than 5 km to visit family and friends, see specialists and undertake recreational activities. A family visit was assumed to involve an 80 km trip, a return trip for leisure or to visit friends was assumed to be 20 km and return trips to help elderly relatives were assumed to be 25 km.

The women Croft surveyed tended to go to the local shops three times per week by car. The BSU transport budget allows for two trips per week for households with one or no children and three trips per week for all other households. It was assumed that each household also makes one trip per week to the nearest shopping centre.

Most of the women surveyed by Croft stated that they visited other members of their family once or twice a week. The BSU households are assumed to visit their family once a fortnight and help out elderly relatives once a week.¹⁷

Apart from medical trips and local shopping trips, the same number of trips were allocated for every household, regardless of size or standard of living. This decision was based on the assumption that shopping and business trips tend to be independent of the size of the household. For example, perishable food items need to be purchased with the same regularity regardless of the number of people eating them.

The number of medical trips were allocated with the help of information from the health budget (Chapter 8). Table 9.7 summarises the assumed number of these health-related trips. Every household was assumed to have a base number of business associated trips of 11 per year to pay bills, and so on. To this was added the total number of medical trips for each adult and the number of trips to the GP for each child. It was assumed that a child's visit to the dentist coincides with an adult visit..

Table 9.7: Trips for Medical Services by Individuals in Households

	Trips by purpose					Total
	GP	Specialist	Pathologist	Dentist	Optician	
3-year-old girl	7	0	0	1	0	8
6-year-old girl	5	0	0	1	0	6
10-year-old boy	4	0	0	1	0	5
14-year-old boy	4	0	0	1	0	5
Working-age female	7	0	6	1	0	14
Working-age male	5	0	0	1	1	7
Retired female	10	4	9	1	1	25
Retired male	8	0	9	1	1	19

Source: BSU health budget (Chapter 8, Table 8.6).

¹⁷ The women included in Croft's survey who took elderly relatives to the shops did so weekly, whilst some also took elderly relatives to medical appointments monthly (Croft. 1996).

The women in Croft's study tended to drive their children to school daily, to drive the children to sport or recreation activities three or four times per week, and to take the children to visit friends weekly (Croft, 1996). It was assumed that the six-year-old girl and 10-year-old boy are driven to school, situated 2.5 km from their home. When the girl and boy are siblings they were assumed to attend the same school.

For working households, the trip to school is assumed to be en route to work so that no extra travel is involved. For households containing an unemployed male, an allocation of 10 km per day for households containing a six-year-old and/or 10-year-old child was made. Children's leisure trips were assumed to be five km in length, regardless of the age of the child. For one child households, two trips per week were allocated, while for households with two children, four trips per week were allocated. For the third and fourth child only, one additional trip each per week was added, to accommodate the effects of economies of scale in transporting children and/or time constraints.

The BSU leisure budget (Chapter 10) allocates one annual holiday (by car) to the modest but adequate households, and one every three years to the low cost households. Household types H_1 and H_2 are assumed to go to Shoal Bay near Port Stephens (650 km round trip); H_5 goes to a farm near Mudgee and H_6 to a farm near Taree (both 800 km round trip); while the remaining households are assumed to go to Forster (700 km round trip).

The leisure budget also allocates an annual number of sporting/cultural trips which involve 50 km of travel each.¹⁸ Two day-trips per year for each household of 300 km were also added. Most households are assumed to undertake these day trips to the Blue Mountains and associated costs are incorporated in the BSU leisure budget. The remaining trips are undertaken with no accompanying cost by assuming that households take a packed lunch and do not pay entrance fees, etc.

The actual annual distances travelled by Sydney households, as reported by the ABS (ABS, 1997a), is summarised in Table 9.8.¹⁹ The median distance travelled was considered to be the most useful representation of the distance travelled for most household types. For the couples with children, however, the higher of the two modes of the distribution was used, on the grounds that households with two cars are represented by the lower mode, whilst households with one car are represented by the higher mode.²⁰

Table 9.8 shows that the annual distance travelled by a household depends on the age of the adult members (presumably an indication of their employment status) and the number of people in the household. Retired single females travel less than 5,000 km per year, whilst working aged couples with children travel 25,000 km per year. Intriguingly, there is little difference in the distance travelled amongst couples with children.

Table 9.9 compares the 'aggregate method' distances travelled based on the ABS data in Table 9.8 with those incorporated into the BSU transport budgets using the 'calculated method' approach described earlier. The 'calculated method' appears to overestimate

¹⁸ This represents the round-trip distance from Hurstville to Sydney city environs, including the Sydney Cricket Ground and the Australian Museum.

¹⁹ There were insufficient numbers of single parents to include them in the table.

²⁰ The distribution of distance travelled by these households is distinctly bimodal because of the large number of such households with two cars.

Table 9.8: Annual Distance Travelled (Kms) by Car by Different Household Types (Descriptive Statistics)

Descriptive statistic	Young couple	Old couple	Couple with 1 child	Couple with 2 children	Couple with 3 children	Young single female	Old single female
Mean	23,895	11,085	24,583	25,565	19,815	12,673	5,863
Median	20,511	8,633	17,035	18,784	16,552	12,376	4,440
Mode	25,000	7,500	12,500- 25,000	12,500- 25,000	12,500- 25,000	17,500	2,500
Median: to and from work	7,912	-	5,934	5,980	5,658	4,646	-

Source: ABS (1997a).

Table 9.9: Annual Distance Travelled by Car: a Comparison of ABS Figures with those Incorporated into the BSU Transport Budgets

	Single female aged 30-40	Single female aged 65-75	Couple with respondent aged 30-40	Couple with respondent aged 65-75
Calculated Method	H ₁	H ₅	H ₂	H ₆
Low cost	9,475	6,639	10,495	6,829
Modest but adequate	12,911	6,920	16,347	7,110
Aggregate Method ^(a)	12,376	4,440	20,511	8,633
	Couple with 1 child	Couple with 2 children	Couple with 3+ children	
Calculated Method	H ₇	H ₃	H ₁₀	
Low cost	12,101-14,477	12,906	13,206	
Modest but adequate	13,501-16,977	17,752	18,052	
Aggregate Method ^(b)	25,000	25,000	25,000	
	H ₈		H ₁₁	
Calculated Method				
Low cost	10,061		13,496	
Modest but adequate	16,967		18,342	
Aggregate Method ^(b)	25,000		25,000	
	H ₉			
Calculated Method				
Low cost	10,091			
Modest but adequate	16,997			
Aggregate Method ^(b)	25,000			

Notes: (a) The median.

(b) The higher of the two modes.

Source: The components of the calculated method are reported in Appendix 9.A. The aggregate method is sourced from ABS (1997b).

somewhat the travel distances by a single retired female and underestimate the distances travelled by working-age couples with and without children.²¹

Petrol and Oil

Staff from the NRMA's Automotive Technical Service Department advised the BSU on the type of fuel used by each car.²² The estimates of fuel consumption were taken from *The Australian Fuel Consumption Guide* published by the Department of Primary Industries and Energy (cited in NRMA, 1996). The price of fuel in February 1997 was the average Sydney pump cost per litre in the March quarter 1997 taken from the ABS (1997c) survey.²³

Households at the low cost standard were assumed to 'shop around' and buy their petrol at a five per cent lower price than that paid at the modest but adequate standard.

Table 9.10 summarises the type of fuel used by each car, the price of that fuel and the fuel consumption of each car, while Table 9.11 summarises the resultant weekly fuel costs by household type and compares it with the fuel costs reported by the Sydney BSU focus group respondents.²⁴

Table 9.10: Fuel Use and its Cost, by Type of Car

	Fuel type	Price in February 1997 cents/litre	Fuel consumption litres/ 100 km
Toyota Corolla 1985	leaded	77.1	8.3
Toyota Corolla 1989	unleaded	74.1	8.3
Toyota Camry 1985	leaded	77.1	10.3
Toyota Camry 1989	unleaded	74.1	8.0
Mitsubishi Nimbus 1985	leaded	77.1	10.4
Mitsubishi Nimbus 1989	unleaded	74.1	10.4

Source: Data on fuel type and fuel consumption supplied by NRMA's Automotive Technical Service Department and NRMA (1996). Prices for unleaded and leaded were taken from ABS Catalogue No. 6403.0.

Service and Repairs of Car

Data on the frequency of servicing classified by the age of the car and the kilometres covered annually are provided by the ABS (1997a), and indicate that the majority of cars are serviced regularly. The NRMA publishes vehicle service costs for cars up to 10 years of age,

²¹ Despite this, the 'calculated method' distances were used in developing the transport budget because they show the components of each household's travel and allow for ease of variation.

²² The older (1985) Corolla and Camry cars were assumed to run on leaded petrol, with unleaded petrol used in all other cases.

²³ The ABS fuel prices for Sydney were the average of daily prices over the March quarter from 50 outlets in Sydney. Included amongst those outlets were discount petrol suppliers.

²⁴ The BSU households were assumed to purchase their motor oil from Target. NRMA's Automotive Technical Services Department advised that cars use about one litre of oil for every 5,000 km travelled.

Table 9.11: Weekly Fuel Costs by Household Type: Comparison of Budget Standard Estimates with the Sydney Focus Group Responses

		Weekly fuel costs (\$)		
		BSU Transport Budget		Sydney Focus Group Respondents ^(a)
		Modest but Adequate	Low Cost	
H ₁	Single female—35 years	15	11	20
H ₂	Couple—male 40 years, female 35 years	19	12	n/a
H ₃	Couple — male 40 years, female 35 years, girl 6 years, boy 14 years	21	15	15-20
H ₄	Single female — 35 years, girl 6 years	16	12	12-20
H ₅	Aged female — 70 years	8	8	10-12
H ₆	Aged couple — both 70 years	8	8	10-12
H ₇	Couple — male 40 years, female 35 years, girl 6 years	16-20	14-17	15-20
H ₈ :	Couple — male 40 years, female 35 years, boy 14 years	20	12	15-20
H?:	Couple — male 40 years, female 35 years, girl 3 years	20	12	15-20
H ₁₀ :	Couple — male 40 years, female 35 years, girls 3, 6 years, boy 14 years.	21	19	15-20
H ₁₁ :	Couple — male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	27	19	15-20
H ₁₂ :	Single female — girl 6 years, boy 10 years	17	13	12-20

Note: (a) These estimates are based on the BSU focus group discussions summarised in the report prepared by Griff (1997).

calculated by using each manufacturer's recommended service schedules, including a range of replacement rates considered appropriate for normal driving conditions relative to the actual distance covered (NRMA, 1996).

When consulted on the validity of the NRMA estimates, Dr. Ian Manning, of RMIT's Transport Research Centre, considered them to be somewhat on the higher side, primarily because they do not take account of any maintenance by the owner and are for newer cars than the average Australian privately-owned car. He also argued that the NRMA repair costs exaggerate what the average car requires in terms of service and maintenance because they are devised to be used by consumers as a means to calculate tax deductible expenses so will, if anything, tend to overestimate the costs of running cars.²⁵

²⁵ Statistical analysis confirmed that the NRMA figures are generally higher than those reported in the 1993-94 *Household Expenditure Survey*.

The NRMA's response to these criticisms was that their methodology is based on the idea that such a servicing regime will avoid the need for major repair work such as gear box replacement. Assuming that the car is serviced as recommended by the dealer and that it is not driven outrageously aggressively, the car can be driven for 10 years (around 100,000 kilometres) without needing any major repairs, aside from oil changes and replacement oil filters, fan belts, wiper blades, brake pads (front and back), radiator hoses, tail lights, head lights, battery, tyres, fuel vapour canister (emission control), spark plugs, engine timing belt, engine thermostat and muffler.

In light of these alternative viewpoints, the BSU considered it appropriate to use the NRMA service repair methodology, since it represented what the industry considers to be the best available estimate of the cost of servicing/repairs and even the NRMA considers the estimation of the likelihood and type of major repairs to be beyond their capabilities, let alone the costing of those major repairs.

Furthermore, the BSU transport budgets assume that households do not undertake their own repairs and the effect that the NSW Government's 'road worthiness' requirement will have on the age of the average car in Sydney must also be recognised. Also, cars in Sydney rust faster than those in inland Australia.

The NRMA cost of servicing and repairing for each of the cars is: Toyota Corolla: 6.3 cents/km; Toyota Camry: 6.9 cents/km; and Mitsubishi Nimbus: 8.9 cents/km. The cost of tyres for each of the cars is: Corolla: 1.0 cents/km; Camry: 1.1 cents/km; and Nimbus: 1.0 cents/km.

However, in acknowledgment of the criticisms of the validity of the NRMA figures, their service and repair estimates have been reduced by 20 per cent for all households, although this does not apply to the NRMA tyre costs.

Road Toll Charges

The BSU households may need to travel regularly on the M4 and M5 motorways, since they link the Hurstville area with the western suburbs of Sydney. Private cars registered in NSW, are exempt from the tolls that apply on the M4 and M5, with the NSW government reimbursing car owners for any tolls paid.

According to RTA and the NSW Government (1997), the owner(s) of each registered car make a \$60 advance deposit to the owners of the M4 motorway and a \$100 advance deposit to the owners of the M5 tollway, and then travel free on the motorways and each of their trips is registered by the motorway owners. Each month, the owner receives a statement of usage and every three months, the owner sends these statements to the RTA and subsequently receives a full rebate.²⁶

The two non-reimbursed toll-ways in Sydney are the harbour bridge (where a \$2 toll applies) and the M2 (where the average toll is also \$2), which connects the north western suburbs with the harbour bridge. The BSU transport budgets assume that each household pays \$2 in tolls for every 5,000km travelled by car.

²⁶ No account is taken of the postage and credit card charges or cheque fees associated with renewing these deposits.

Parking

The cost of parking varies markedly throughout Sydney. In Hurstville, as in most major shopping centres, except for Sydney city, the casual shopper can park for free. It is also assumed that workers park for free, or that their parking costs are paid by their employers.

Trips to cultural/sporting events, such as concerts at the Entertainment Centre or sporting fixtures at the Sydney Cricket Ground are, however, assumed to accrue parking fees. As a pricing guide, the most expensive parking costs, that is those of central Sydney, were included in the budgets. On-street parking, and the first two hours of off-street parking, can be obtained at a cost of \$3 per hour. The transport budgets therefore include fees to cover two hours of parking for each attendance at cultural/sporting events.

Public Transport

Individuals within the BSU households are assumed to travel by car whenever possible. The school-age children may travel by public transport to school. However, as explained earlier, as long as they live within an appropriate distance from the school, they travel to school for free in NSW. The six-year-old and 10-year-old children do not travel on public transport outside of school hours.²⁷ The 14-year-old boy was allocated 12 return tickets (eight sections on the local private bus) per year (one per month) to visit his friends.

Working-age single females (including mothers) were allocated five return train tickets to the city per year plus a return ticket on the private bus to the train station for each trip (three sections for modest but adequate and five sections for low cost) for leisure trips. For couples without children, 10 such trips were allocated. For couples with children at the modest but adequate standard, five trips were included in the budgets to take account of possible time constraints which restrict the use of the car.

Similarly, five trips were allocated to low cost couples with children in which the husband works. Ten trips were included for all other low cost couples with children, on the assumption that these parents have more time to take them.

A total of 12 day trips were included in the budgets for each retired adult on the assumption that they take advantage of the pensioner discount fare which operates (outside of peak travel hours). However, there is only one Sydney bus route running in the Hurstville LGA (route number 499) which runs to Drummoyne via Burwood Station and Bexley North. So it was assumed that the retired adults must travel by private bus to Hurstville station, five sections for the low cost, and three sections for the modest but adequate (because they live closer to the station). They are each assumed to pay half price for these trips.

As noted earlier, couples with children in which the husband works and the wife does not work have to share one car during the working week. The stay-at-home wives of working men were allocated one trip to the local shops per week (two sections on the local private bus) for the 48 weeks of the year that the husband is at work. One day each week, the wife is assumed to keep the car for her own needs, so the husband is allocated 48 return train trips to the city each year, plus the relevant return bus trips to the station.

²⁷

Interviews with mothers reported in Croft (1996) and Dowling and Gollner (1997) indicate that parents generally do not allow children of that age to travel alone on public transport.

For couples who both work, the above transport pattern is assumed to operate in the weeks in which one of the couple is on holiday whilst the other works (six weeks in total). Households containing two or more children are allocated two public transport trips per week.

When both members of the couple households with children are working, each is assumed to take a three week holiday from work independently of the other in order to fulfil child care obligations during school holidays. During this time (six weeks in total for both parents combined) the stay-at-home parent is allocated two trips to the local shops per week. Similarly, the stay-at-home parent is assumed to keep the car at home for one day a week over their period at home, so that an additional six return trips to the city for the working parent have been included in the budgets.

The following information, provided by the NSW Department of Transport and State Rail Authority on public transport concessions has been incorporated into the transport budget. Those with access to a pensioner concession card or a Seniors' Card can travel for \$1/\$2/\$3 a day on State government buses, trains and ferries in metropolitan Sydney and country NSW. There are no restrictions on when the travel can be undertaken. The \$1/day fare covers, say a Hurstville to Sydney centre return trip. A \$2/day fare covers a Hurstville to the Blue Mountains return trip, while a trip to Newcastle warrants a \$3/day fare.

Although State government bus routes do not cover all of metropolitan Sydney, areas not covered by State government buses are generally serviced by private buses—although pensioners do not receive such generous discounts on these. (They generally travel for half the standard fare on private buses). State government buses service the eastern suburbs, the lower North Shore and the northern beaches. The BSU pensioners live in areas not serviced by government buses. Hence they are assumed to catch a private bus to the station.

In NSW, those who are in receipt of the maximum rate of Newstart qualify for a Travel Concession Card, which entitles them to a 50 per cent discount on single journey fares on State government buses in metropolitan Sydney. Their spouse (where relevant) does not qualify for a concession unless he/she is also registered as actively searching for work. These Travel Concession Cards have been allocated to all unemployed people in the BSU low cost budgets.

The three-year-old girl is assumed to travel free on public transport, while the other children are assumed to travel to and from school for free and qualify for a 50 per cent discount on all other routes, and at all other times.

Taxi Fares

The Industry Commission (1994) reports that most taxi journeys are for a short distance, usually for business, tourist or occasional travellers. The BSU households would be categorised as occasional travellers and they, the Industry Commission implies, tend to use taxis only for emergency or safety purposes.

In support of this, Griff (1997) reported that the BSU Sydney focus group participants used taxis only in rare and unusual circumstances like urgent shopping in the rain, recovering from surgery (an elderly female), or travelling home late at night (a young, single woman).

It can be argued that the use of taxis by the various BSU households will vary systematically with household composition. Thus, female-only households are likely to use taxis more frequently for safety reasons, while households with more children may use taxis more often in

emergency situations. Many households now rely on a taxi when the parents go out together and want to be free to consume more alcohol than would allow them to drive themselves.

Rather than try to assign a precise number of taxi trips to each household separately, a rule of thumb was used which involved allocating four taxi trips each year to each household, with an additional two trips a year (making six in total) to those households in which the adult woman has no male partner.

The fare for each trip was set at \$13.70, comprising a \$3 flag fee plus \$10.70 to cover a trip of 10 kilometres at the February 1997 Sydney price of \$1.07 per kilometre travelled.

Car Restraints for Young Children

The NSW Roads and Traffic Authority (RTA) report on their assessment of the relative performance of child restraints available in Australia (RTA, NRMA and ACE, 1997). The assessment covered crash testing, installation and use, and compatibility with a range of cars.²⁸

According to the RTA, children from six months to four years (weighing between eight kg and 18 kg) should use a child seat, while children aged four to eight years (weighing 14 kg to 32 kg) should use a booster which is not attached to the car, but is held in place by the lap/sash seat belt or child harness and lap belt worn by the child. Furthermore, it is important to use restraints approved by Standards Australia because they provide the best protection.

According to the growth charts presented by Curtin University of Technology (1994, p. 145) the 50th percentile weight for a three-year-old girl is 14 kg and that for a six-year-old girl is 19 kg. Hence, the three-year-old girl is allocated a child seat and the six-year-old girl a booster.

The RTA (1997) lists preferred buys, although an industry informant advised that the list of preferred buys has not been altered for some years. Although the RTA suggests that second-hand seats and boosters were adequate, the NSW Department of Fair Trading requirements all but preclude second-hand trading in child car restraints by requiring that only the latest brands be traded on the second-hand market.

Given the rate at which brands are being updated, it is rare that parents would be able to buy second-hand seats and boosters. There is a rental market in seats and boosters, but rental costs far outweigh purchase costs.²⁹

The child seat and booster (including fitting) were both priced at a local authorised restraint fitting station. They were not priced at a chain store, such as Kmart or Target, because such items sold through chain stores often do not include all of the required belts and straps, which need to be fitted elsewhere at additional cost. Since the restraints are safety items, no distinction has been made between their cost for inclusion in the low cost and modest but adequate budgets.

In Australia, all adults travelling by car are legally obliged to wear a seat belt, while children must use a child restraint.

It can be argued that the BSU households containing the 10-year-old boy or the 14-year-old boy will already have child restraints that could be saved and used for their young children. However, these restraints may be out of date or may have been damaged to the extent that the level of safety that they afford the current user would be significantly lower than if she/he had a new restraint. Hence new restraints have been allocated to all households primarily on normative (safety) grounds.

The available preferred buys for the child seat were: the Century (12000C) recliner, the Safe-N-Sound Eclipse (Series 6000), the Safe-N-Sound Series 3 (edition 2), and the Safe-N-Sound Discovery. The Safe-N-Sound Series 3 which costs \$149 and is around the middle of the range in price, was chosen.³⁰ The lifetime assumed for the seat was 3.5 years.

The available preferred buys for the booster were; the Century 800 booster, the Kiddy safe (6225), the Klippan Easy rider Freeway (K2261), the Safe-N-Sound Cruiser (Series 5020), the Safe-N-Sound Observer, the Safe-N-Sound Solo and the Safe-N-Sound Travel Safe (Series 4000). The Safe-N-Sound Cruiser at \$79 was chosen, and assigned a lifetime of four years.

9.5 Summary Transport Budgets

Tables 9.12 and 9.13 summarise the nature and cost of those components of the modest but adequate and low cost transport budgets, which were not outlined earlier. Tables 9.14 and 9.15 summarise the resulting overall BSU transport budgets at the two standards.³¹

The cost of public transport includes bus fares (by public and private bus) and train fares. It represents a very small part of the total budget, since behavioural data have been followed in assuming the car is the dominant form of transport for Australian households. Public transport is, however, important in one-car households when the adult members have conflicting needs for the household car.

Amongst the children, only the 14-year-old child uses public transport outside of going to and from school. When the husband works full-time and the wife does not work, public transport costs are quite high, at \$11 per week, because the wife is required to make public transport trips to the local shops and the husband makes some trips to work by public transport so that the wife can have the car at home for her transport needs.

When the husband works full-time and the wife part-time, the public transport costs rise to \$19 per week. Here, the wife is assumed to travel to work by car with the husband, and then travels home by car, while he returns home by public transport.

Overall, taxi fares and parking fees are minor elements of the transport budgets, although the costs of tyres and repairs to the family car contribute significantly to the budget. As would be expected, these elements are generally higher for the modest but adequate budgets and for the larger households, since they are based primarily on the distances travelled.

In overall terms, the low cost transport budgets are between 60 per cent and 70 per cent of the modest but adequate budgets. The degree of attachment to the labour market of the adult members of the household is a key determinant of the size of the transport budgets, as can be seen by comparing the four alternative budgets for household type H₇. There are significant transport costs associated with being unemployed, but even larger transport costs for those in work.

³⁰ If the same item were purchased from Kmart, the basic seat would cost \$114. an extension strap \$15 and the fitting \$15. totalling \$144. The fitting needs to be undertaken at an authorised fitting station.

¹ The focus group report (Chapter 13) explains that the focus groups found the preliminary transport costs presented to them were too high. The current transport budgets are substantially lower than the preliminary budgets.

Table 9.12: Weekly Modest but Adequate Transport Budget Components by Household Type

Household		Tyres	Repairs	Car accessories ^(a)	Public transport	Taxis	Parking
H ₁ :	Single female—35 years	2.58	15.60	1.25	0.58	1.58	0.35
H ₂ :	Couple—male 40 years, female 35 years	3.26	19.75	1.25	1.15	1.05	0.58
H ₃ :	Couple—male 40 years, female 35 years, girl 6 years, boy 14 years	3.75	23.53	1.25	2.74	1.05	0.69
H ₄ :	Single female—35 years, girl 6 years	2.83	17.79	1.25	0.58	1.58	0.12
H ₅ :	Aged female—70 years	1.38	8.36	1.72	0.64	1.58	0.00
H ₆ :	Aged couple—both 70 years	1.42	8.59	1.72	1.29	1.05	0.00
H ₇ ^(a,b) :	Couple—male 40 years, female 35 years, girl 6 years	3.58	22.50	1.25	1.75	1.05	0.69
H ₇ ^(f,g) :	As above	2.85	17.89	1.25	10.46	1.05	0.69
H ₇ ^(j,k) :	As above	3.26	20.49	1.25	19.03	1.05	0.69
H ₈ :	Couple—male 40 years, female 35 years, boy 14 years	3.58	22.49	1.25	2.44	1.05	0.69
H ₉ :	Couple—male 40 years, female 35 years, girl 3 years	3.59	22.53	1.25	1.75	1.05	0.69
H ₁₀ :	Couple—male 40 years, female 35 years, girls 3, 6 years, boy 14 years.	3.81	23.92	1.25	2.74	1.05	0.69
H ₁₁ :	Couple—male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	3.52	31.13	1.34	2.74	1.05	0.69
H ₁₂ :	Single female—girl 6 years, boy 10 years	3.00	17.19	1.25	1.45	1.58	0.12

Note: (a) Includes washing, steering wheel lock, guide book.

The budget of the retired female is substantially reduced if she is assumed to do without a car. Tables 9.14 and 9.15 show that the impact of car ownership on the budgets of the 70-year-old woman causes them to rise by almost \$40 a week at the modest but adequate standard and by just over \$20 a week at the low cost standard, relative to her weekly budget assuming that she does not own a car.

A key assumption that underlies the BSU transport budgets is that householders spend a great deal of time together in leisure pursuits and that couples travel together to work, both of which imply that there are significant economies of scale in transport costs. The transport budget for the household with four children at the modest but adequate level, for example, is less than double the similar budget for the single working-age female.

These cost economies need to be considered in conjunction with the considerable effort that has to be put into coordinating the transportation of individual household members that has been described throughout this chapter.

Table 9.13: Weekly Low Cost Transport Budget Components by Household Type

Household		Tyres	Repairs	Car accessories ^(a)	Public transport	Taxis	Parking
H ₁ :	Single female—35 years	1.89	11.45	0.60	0.41	1.58	0.23
H ₂ :	Couple—male 40 years female 35 years,	2.09	12.68	0.60	0.82	1.05	0.00
H ₃ :	Couple—male 40 years, female 35 years, girl 6 years, boy 14 years	2.72	17.10	0.60	1.77	1.05	0.12
H ₄ :	Single female—35 years, girl 6 years	2.23	14.04	0.60	0.32	1.58	0.12
H ₅ :	Aged female—70 years	1.32	8.02	0.82	0.76	1.58	0.00
H ₆ :	Aged couple—both 70 years	1.36	8.25	0.82	1.52	1.05	0.00
H ₇ ^(c) :	Couple—male 40 years, female 35 years, girl 6 years	2.55	16.04	0.60	1.08	1.05	0.12
H ₇ ^(d,c) :	As above	2.77	17.43	0.60	1.34	1.05	0.12
H ₇ ^(h) :	As above	2.75	17.28	0.60	10.94	1.05	0.12
H ₇ ⁽ⁱ⁾ :	As above	3.05	19.19	0.60	10.94	1.05	0.12
H ₈ :	Couple—male 40 years. female 35 years, boy 14 years	2.12	13.33	0.60	1.77	1.05	0.12
H ₉ :	Couple—male 40 years, female 35 years, girl 3 years	2.13	13.37	0.60	1.08	1.05	0.12
H ₁₀ :	Couple—male 40 years, female 35 years, girls 3, 6 years, boy 14 years.	2.79	17.50	0.60	1.77	1.05	0.12
H ₁₁ :	Couple—male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	2.59	22.91	0.64	1.45	1.05	0.12
H ₁₂ :	Single female—girl 6 years, boy 10 years	2.40	13.77	0.60	0.32	1.58	0.12

Note: (a) Includes washing, steering wheel lock, guide book.

Table 9.14: Weekly Modest but Adequate Transport Budgets by Household Type

Household	Labour Force Status	Transport Costs (\$)
H ₁ : Single female—35 years	employed full-time	75.77
H ₂ : Couple—male 40 years, female 35 years	both employed full-time	85.40
H ₃ : Couple — male 40 years, female 35 years, girl 6 years, boy 14 years	both employed full-time	91.77
H ₄ : Single female — 35 years, girl 6 years	employed full-time	77.83
H ₅ : Aged female—70 years	retired from labour force	55. 53 ^(a)
H ₆ :	both retired from labour force	56. 15
H ₇ ^(a, b) : Couple — male 40 years, female 35 years, girl 6 years	both employed full-time	88.76
H ₇ ^(f,g) : As above	male employed full-time female not in labour force	88.40
H ₇ ^(j,k) : As above	male employed full-time female employed part-time both employed full-time	102.08
H ₈ : Couple — male 40 years, female 35 years, boy 14 years	both employed full-time	88.61
H ₉ : Couple — male 40 years, female 35 years, girl 3 years	both employed full-time	88.38
H ₁₀ : Couple — male 40 years, female 35 years, girls 3, 6 years, boy 14 years.	both employed full-time	100.75
H ₁₁ : Couple — male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	both employed full-time	122.29
H ₁₂ : Single female — girl 6 years, boy 10 years	employed full-time	80.81

Note: (a) The comparable budget for a retired female assumed to rely entirely on public transport is \$16. 15.

Table 9.15: Weekly Low Cost Transport Budgets by Household Type

Household	Labour Force Status	Transport Costs (\$)
H ₁ : Single female — 35 years	unemployed	50.32
H ₂ : Couple — male 40 years, female 35 years	both unemployed	53.03
H ₃ : Couple — male 40 years, female 35 years, girl 6 years, boy 14 years	male unemployed female not in labour force	61.30
H ₄ : Single female — 35 years, girl 6 years	not in labour force	49.09
H ₅ : Aged female — 70 years	retired from labour force	38.48 ^(a)
H ₆ : Aged couple — both 70 years	both retired from labour force	39.21
H ₇ ^(c) : Couple — male 40 years, female 35 years, girl 6 years	male unemployed female not in labour force	58.51
H ₇ ^(d,e) : As above	both unemployed	61.50
H ₇ ^(h) : As above	male employed full-time female not in labour force	70.80
H ₇ ⁽ⁱ⁾ : As above	male employed full-time female unemployed	74.55
H ₈ : Couple — male 40 years, female 35 years, boy 14 years	male unemployed female not in labour force	53.09
H ₉ : Couple — male 40 years, female 35 years, girl 3 years	male unemployed female not in labour force	52.85
H ₁₀ : Couple — male 40 years, female 35 years, girls 3, 6 years, boy 14 years.	male unemployed female not in labour force	72.87
H ₁₁ : Couple — male 40 years, female 35 years, girls 3, 6 years, boys 10, 14 years.	male unemployed female not in labour force	78.08
H ₁₂ : Single female — girl 6 years, boy 10 years	not in labour force	51.18

Note: (a) The comparable budget for a retired female assumed to rely entirely on public transport is \$17.99.

APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H₁ Single female, 35 years employed full-time: (modest but adequate)			
work	230	20.2	4,646
local shops	102	5	510
shopping centre	51	10	510
medical/personal business	25	10	250
major purchase	1	200	200
visit family	26	80	2,080
leisure/visit friends	102	20	2,040
sporting/cultural	3	50	150
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	650	650
<i>TOTAL</i>			<i>12,911</i>
H₁ Single female, 35 years unemployed: (low cost)			
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	25	10	250
major purchase	1	200	200
visit family	26	80	2,080
leisure/visit friends	102	20	2,040
sporting/cultural	2	50	100
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	650	214.5
<i>TOTAL</i>			<i>9,474.9</i>
H₂ Couple, no children, both adults employed full-time: (modest but adequate)			
work	230	34.4	7,912
local shops	102	5	510
shopping centre	51	10	510
medical/personal business	31	10	320
major purchase	1	200	200
visit family	26	80	2,080
leisure/visit friends	102	20	2,040
sporting/cultural	5	50	250
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	650	650
<i>TOTAL</i>			<i>16,347</i>

APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types (Continued)

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H₂ Couple, no children, both adults unemployed: (low cost)			
DSS/CES	26	15	390
job interview	104	20.2	2,100.8
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	32	10	320
major purchase	1	200	200
visit family	26	80	2,080
leisure/visit friends	102	20	2,040
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	650	214.5
<i>TOTAL</i>			<i>10,495.3</i>
H₃ Couple, with girl 6 and boy 14, both adults employed full-time: (modest but adequate)			
work	230	34.4	7,912
local shops	141	5	705
shopping centre	51	10	510
medical/personal business	41	10	410
major purchase	1	200	200
visit family	26	80	2,080
children's social life	204	5	1,020
leisure/visit friends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			<i>17,752</i>
H₃ Couple, girl 6 and boy 14, husband unemployed, wife not in the labour force: (low cost)			
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
child to school	203	10	2,030
local shops	153	- 5	765
shopping centre	51	15	765
medical/personal business	41	10	410
major purchase	1	200	200
visit family	26	80	2,080
children's social life	204	5	1,020
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>12,906.4</i>

**APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)**

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H₄ Single female, girl 6, adult employed full-time: (modest but adequate)			
work	230	20.2	4,646
local shops	102	5	510
shopping centre	51	10	510
medical/personal business	30	10	300
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			13,421
H₄ Single female, girl 6, adult not in the labour force: (low cost)			
child to school	203	10	2,030
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	30	10	300
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
sporting/cultural	I	50	50
<i>TOTAL</i>			10,591
H₅ Aged female retired: (modest but adequate)			
local shops	102	5	510
shopping centre	51	10	510
medical/personal business	36	10	360
major purchase	1	20	20
visit family	26	80	2,080
leisure/visit friends	102	20	2,040
day trips	2	300	600
annual holiday	1	800	800
<i>TOTAL</i>			6,920

**APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)**

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H_s Aged female retired: (low cost)			
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	36	10	360
major purchase	1	20	20
visit family	26	80	2,080
leisure/visitfriends	102	20	2,040
day trips	2	300	600
annual holiday	.33	800	264
TOTAL			6,639
H₆ Aged couple both retired: (modest but adequate)			
local shops	102	5	510
shopping centre	51	10	510
medical/personal business	55	10	550
major purchase	1	20	20
visit family	26	80	2,080
leisure/visit friends	102	20	2,040
day trips	2	300	600
annual holiday	1	800	800
TOTAL			7,110
H₆ Aged couple both retired: (low cost)			
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	55	10	550
major purchase	1	20	20
visit family	26	80	2,080
leisure/visit friends	102	20	2,040
day trips	2	300	600
annual holiday	.33	800	264
TOTAL			6,829
H₇^(a,b) Couple, girl 6, both adults working full-time: (modest but adequate)			
work	230	34.4	7,912
local shops	96	5	480
shopping centre	51	10	510
medical/personal business	37	10	370
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visitfriends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
TOTAL			16,977

**APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)**

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
<i>H₇^(c) Couple, girl 6, husband unemployed, wife not in the labour force: (low cost)</i>			
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
child to school	203	10	2,030
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	37	10	370
major purchase	i	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>12,101.4</i>
<i>H₇^(d,e) Couple, girl 6, both adults unemployed: (low cost)</i>			
DSS/CES	26	15	390
job interview	104	20.2	2,100.8
child to school	203	10	2,030
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	37	10	370
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>13,151.8</i>
<i>H₇^(f,g) Couple, girl 6, husband working full-time, wife not in the labour force: (modest but adequate)</i>			
work	230	20.2	4,646
local shops	54	5	270
shopping centre	51	10	510
medical/personal business	37	10	370
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			<i>13,501</i>

**APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)**

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H₇^(h) Couple: girl 6, husband working full-time, wife not in the labour force: (low cost)			
work	230	20.2	4,646
local shops	54	5	270
shopping centre	51	15	765
medical/personal business	37	10	370
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>13,037</i>
H₇⁽ⁱ⁾ Couple, girl 6, husband working full-time, wife unemployed: (low cost)			
work	230	20.2	4,646
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
local shops	54	5	270
shopping centre	51	15	765
medical/personal business	37	10	370
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>14,477.4</i>
H₇^(j,k) Couple, girl 6, husband working full-time, wife working part-time: (modest but adequate)			
work (male only)	92	20.2	1,858.4
work (female and male)	138	34.4	4,747.2
local shops	54	5	270
shopping centre	51	10	510
medical/personal business	37	10	370
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			<i>15,460.6</i>

**APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)**

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
work	230	34.4	7,912
local shops	96	5	480
shopping centre	51	10	510
medical/personal business	36	10	360
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			<i>16,967</i>
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	36	10	360
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>10,061.4</i>
work	230	34.4	7,912
local shops	96	5	480
shopping centre	51	10	510
medical/personal business	39	10	390
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			<i>76,997</i>

**APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)**

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H₉ Couple, girl 3, husband unemployed, wife not in the labour force: (low cost)			
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
local shops	102	5	510
shopping centre	51	15	765
medical/personal business	39	10	390
major purchase	1	200	200
visit family	26	80	2,080
children's social life	102	5	510
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
TOTAL			10,091.4
H₁₀ Couple, girls 3 and 6 and boy 14, both adults working full-time: (modest but adequate)			
work	230	34.4	7,912
local shops	141	5	705
shopping centre	51	10	510
medical/personal business	48	10	480
major purchase	1	200	200
visit family	26	80	2,080
children's social life	250	15	1,250
leisure/visit friends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
TOTAL			18,052
H₁₀ Couple, girls 3 and 6 and boy 14, husband unemployed, wife not in the labour force: (low cost)			
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
child to school	203	10	2,030
local shops	153	5	765
shopping centre	51	15	765
medical/personal business	48	10	480
major purchase	1	200	200
visit family	26	80	2,080
children's social life	250	5	1,250
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
TOTAL			13,206.4

**APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)**

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H₁₁ Couple, girls 3 and 6 and boys 10 and 14, both adults employed full-time: (modest but adequate)			
work	230	34.4	7,912
local shops	141	5	705
shopping centre	51	10	510
medical/personal business	52	10	520
major purchase	1	200	200
visit family	26	80	2,080
children's social life	300	5	1,500
leisure/visit friends	102	20	2,040
sporting/cultural	6	50	300
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			<i>18,342</i>
H₁₁ Couple, girls 3 and 6 and boys 10 and 14, husband unemployed, wife not in the labour force: (low cost)			
DSS/CES	26	15	390
job interview	52	20.2	1,050.4
child to school	203	10	2,030
local shops	153	5	765
shopping centre	51	15	765
medical/personal business	52	10	520
major purchase	1	200	200
visit family	26	80	2,080
children's social life	300	5	1,500
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>13,496.4</i>
H₁₂ Single female, girl 6 and boy 10, adult employed full-time: (modest but adequate)			
work	230	20.2	4,646
local shops	153	5	765
shopping centre	51	10	510
medical/personal business	31	10	340
major purchase	1	200	200
visit family	26	80	2,080
children's social life	204	5	1,020
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	1	700	700
<i>TOTAL</i>			<i>14,226</i>

APPENDIX 9.A: Annual Distance Travelled by Car, by BSU Household Types
(Continued)

Purpose of journey	Number of trips	Kilometres per trip	Annual kilometres
H₁₂ Single female, girl 6 and boy 10, adult not in the labour force: (low cost)			
child to school	203	10	2,030
local shops	153	5	765
shopping centre	51	15	765
medical/personal business	34	10	340
major purchase	1	200	200
visit family	26	80	2,080
children's social life	204	5	1,020
leisure/visit friends	102	20	2,040
sporting/cultural	1	50	50
helping elderly relatives	51	25	1,275
day trips	2	300	600
annual holiday	.33	700	231
<i>TOTAL</i>			<i>11,396</i>

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CHAPTER 10: THE LEISURE BUDGET*

10.1 Introduction

At first sight, expenditure on leisure might seem to be something of a luxury. This is not a problem when determining the level of leisure expenditure at the modest but adequate standard which is defined as 'falling somewhere between the standards of survival and decency and those of luxury', and is presumed to reflect something close to the median standard of living prevailing in the community.

Precisely because expenditure on leisure reflects a living standard that goes beyond the mere maintenance of 'requirements of survival' (Watts, 1980, p. vii), it seems clear that an allowance for such expenditure should form part of a modest but adequate budget standard, even though this means that an element of individual taste and personal preference will thereby be incorporated into the standard.

However, the case for including expenditure on leisure activities in a low cost budget standard needs to be argued. As explained earlier, the BSU budget for leisure activities has been designed to promote healthy living and full social participation and to produce (at the low cost standard) a modern minimum life style that requires frugal management and represents a level below which it is increasingly difficult to maintain an acceptable standard of living, but not one that excludes the possibility of participating in normal social activities.

Such considerations, along with the fact that active leisure contributes to good health and mental and social well-being, suggests that incorporating an allowance for leisure even in low cost budgets is appropriate. Without such an allowance, it would be very difficult to argue that the low cost budgets represent the actual circumstances of Australian households who are living at this level in the 1990s.

The leisure budget was prepared by Michael Bittman and Marilyn McHugh, with assistance from Denise Thompson. Duncan Ironmonger provided supplementary information on the ownership of appliances, drawn from Morgan Gallup data, and Peter Kell from the Australian Consumers' Association also provided assistance on several occasions. Relationships Australia provided advice on the significance of leisure taken in common to the functioning of personal relationships, and staff of the Australian Broadcasting Authority provided useful information on the ownership of leisure appliances. The Bureau of Transport and Communications Economics also provided information on leisure activities undertaken at home. In determining the content of children's toy boxes, advice was provided by Toy'R'Us, Lego Australia, the Educational Experience Pty Ltd (Newcastle) and the NSW Department of Community Services. The NSW Department of Sport, Recreation and Racing, the Hunter Regional Tourism Organisation, the NSW Travel Centre, Real Estate agents in the Forster/Tuncurry area and NSW Farm and Country Holidays, Salamander Shores, Port Stephens all provided input into the holiday component of the budget. Special thanks are also due to James Cummings from Tourism New South Wales, Lori Cameron from the Australia Sports Commission, Theo Newman and Barry Haydon from the ABS in South Australia, and staff from the NSW Health Department, the NSW Academy of Sport, Rebel Sport Stores, Hurstville City Council, various sporting Associations in the Hurstville LGA, the Hurstville Aquatic Leisure Centre, and the National Heart Foundation also provided information that assisted in the construction of the budget for sports and outdoor recreation. Ian Smith provided a stream of useful advice on the sources of information about participation in sport and recreation activities. Greater Union Theatres and Pearl and Dean provided information on attendances and costs at movie theatres. Angus and Robertson and ACP Info Bank (Market Research) supplied information on the purchasers of books and magazines, while Flower Power provided important information on the costs associated with gardening. George Matheson of the Social Policy Research Centre provided invaluable advice and technical assistance with developing the activity-specific weights. Jonathan Bradshaw read an early draft of the manuscript and made many helpful editorial suggestions. Katrine Baghurst, from CSIRO and Harry Kroon from ABS also provided detailed comments on draft versions of this budget.

The BSU leisure budget has been formulated on the basis that individuals and families should be able to participate in 'normal' and healthy social and physical pursuits. Survey data on the leisure activities of Australians has been used extensively in determining what should be considered 'normal' activities.

However, where the actual amounts of physical activity fall below the levels recommended for health, the amount of active leisure participation has been increased and passive leisure (principally the time spent watching television) has been correspondingly reduced. In this way, the leisure budget, while predominantly derived from behavioural data on the patterns of actual leisure activity, can also be claimed to be informed by normative criteria relating to good health.

Some households have special needs which influence the amounts and patterns of leisure activity (McCabe and Waddington, 1992, pp. 6-8). People aged 70 years, for example, may have reduced mobility compared to younger people. People living alone and sole parents may suffer from isolation and therefore need sufficient resources to allow them to go out regularly and engage in activities which involve interacting with other people. To deny them these resources is to run the risk of forcing them into a situation that has come to be described as one of social exclusion (Berghman, 1997).

The current literature reveals that strong social networks help to sustain independent living. In addition, studies have repeatedly shown a correlation between social isolation and mortality (James and Swindell, 1992). In recognition of the fact that men and women prefer different kinds of leisure activity, estimates of the cost of leisure recognise that leisure activities vary with age and gender.

The leisure time of parents is also heavily influenced by their children's needs. Couples with children generally become more home-centred and their leisure activities correspondingly more child-centred. However, marriage guidance authorities recommend that parents engage in some leisure pursuits without their children (Lavee, Sharlin, Katz, 1996). Although the BSU budget standards assume that parents have a night (or day) out from time-to-time, no allocation is allowed for babysitting fees, as it is assumed that reciprocal arrangements in regard to babysitting exist between family, friends or neighbours.

Because experts in child development emphasise the importance of play for children, the leisure budget has made allowance for the purchase of children's toys (Wyver, 1995). Furthermore, the children of sole parents have, on normative grounds, been allocated the same leisure activity allocations as other children, so that they are able to participate in the same range of activities as children in two-parent families.

Teenagers enjoy different activities to younger children. Independence from their parents and maintaining identity within their peer group are important needs, so the allowance for leisure must include the cost of independent activities and social events with friends for those in this age category.

While the leisure budget is based on normatively derived standards of active leisure, it is not the intention of the research to prescribe how people should spend their leisure time. Making all leisure activities obligatory defeats the purpose of leisure as 'free-time' activity. Rather, the intention is to provide a consistent, coherent and normatively informed framework for healthy leisure expenditure which would allow people to make their own choices within it.

10.2 Methods

Leisure Services and Leisure Goods

Leisure expenditure falls fairly naturally into two parts—money spent on leisure services and outlays for leisure goods. Each of these parts requires a distinctive method of estimation in the context of developing indicative budget standards.

The costs of *leisure services* are based on:

- the mode of leisure participation;
- the frequency of this participation; and
- the costs associated with each episode.

The mode of leisure activity may be physical exercise which promotes cardio-vascular health, or it may involve social contact (for example, visiting or being visited by friends or relatives) or it may involve the consumption of 'cultural goods', such as visits to museums, art galleries, the theatre, or simply reading a book at home. Each of these activities will take place with a definite frequency, partly determined by the factors affecting the time available for leisure (which is in turn affected by the other factors mentioned above).

The requirements for *leisure goods* vary through the life course in accordance with variations in the composition of households. Thus, for example, while most households will consume newspapers and television programs at all times, only some will require children's toy boxes or play lawn bowls.

As with other component budgets, the costs of *leisure goods* have been calculated by determining which items to include in the budgets, the quantity and quality of these goods, and their life span. As elsewhere in the research, the 50/75 per cent ownership rule described in Chapter 2 has been applied as the benchmark to assist in determining which items or activities to include in the budgets. Items owned (or activities undertaken) by 50 per cent or more of Australian households have been included in the modest but adequate budget standard, but only those owned (or undertaken) by 75 per cent of the population are included in the low cost budget.

An Operational Definition of Leisure

In 1965, 13 nations collaborated, under the direction of the Hungarian statistician Alexander Szalai to produce the first truly comparable information on how people in various countries use their time (Szalai, 1972). A by-product of this project was an internationally standardised classification of activities, which remains to this day the basis of subsequent official activity classification (Harvey and Niemi, 1993; Australian Bureau of Statistics, 1993). This classification derives from the process of categorising (according to a pre-established coding frame) respondents' descriptions in their 'own words' of these activities as recorded in a time-use diary.

Following these conventions, activities can be grouped into a number of broad categories. There are activities which are associated with *employment*, such as the time spent on the job (including any overtime), travel to work, breaks at work, and so on. Some activities are associated with *domestic responsibilities*, such as cooking, cleaning, laundry, shopping, child care, gardening, and home and car maintenance. Other activities relate to *personal care*, such as sleeping, eating, washing, dressing and grooming. Then there are *educational activities*, and

the activities associated with *religion*, *voluntary work* and *civic obligations*. Finally, there are those activities associated with *social life* and *entertainment*, and *active and passive leisure*.¹

In calculating the cost of leisure, it has been assumed that the activities 'social-life and entertainment', and 'active and passive' leisure are genuine leisure activities. However, since the need for social participation is among the main grounds for justifying the inclusion of leisure expenditure in the BSU budget standards, this narrow definition of leisure activities has been expanded to include the time spent in hobby or recreational education, religion and civic participation, and (following the advice of the BSU focus groups) gardening also.

One advantage of following the time-use activity classification scheme referred to above is that it is exhaustive. Using this coding scheme, each and every activity mentioned in any one of the thousands of recorded diaries, including some very obscure and infrequently undertaken activities, is capable of classification. This procedure is designed to ensure that no leisure activities are neglected.²

Another advantage of adopting the time-use activity classification is that assigning an activity to a category depends on the rules of a coding frame and the judgements of coders but does not depend upon the individual respondent's subjective 'feelings' about the nature and role of the activity itself. Thus, it makes no difference, in the classification of an activity, whether an individual respondent says they 'enjoy' it or not. Following the established conventions, a person may have a miserable time at a gathering of friends and enjoy themselves hugely at a sales convention but this does not make the party with friends work and the sales convention leisure.

The Family Budget Unit at the University of York criticised this non-subjective procedure by pointing out that some personal care activities can be 'simple leisure activities such as enjoying a "quiet bubble bath"' (McCabe and Waddington, 1992, p. 5). A similar set of comments could be made about lying in bed awake. Fortunately, the ABS assigned precisely this kind of activity to the category 'Relaxing, thinking and resting' and included it in the broad grouping of 'passive leisure'.

A further complication in classifying activities arises because people frequently engage in more than one activity at a time. For example, a person might eat and watch television, or a parent may take their child with them to the local swimming pool. In both cases a leisure activity (watching television, swimming) is combined with a non-leisure activity (eating, child-minding).

The BSU has resolved this difficulty by following the established convention, under which the activity which the respondent indicated was the 'main activity' predominates. Eating while watching television is leisure where the respondent indicates that their main activity was watching television, while if the main purpose of the visit to the pool was to allow the child to participate in a swimming lesson, then the activity is classified as child care rather than leisure.

ABS (1993) provides a detailed description of the activities classified under each of these headings.

The correspondence between the 1992 Time Use Leisure Activity Classifications and the six categories of 'Leisure Activity' used in this analysis are set out in Appendix 10. A.

Individual Leisure Needs and Behaviour

By contrast with non-leisure activities, leisure has a discretionary character. Employment, study, domestic tasks, the care of children and attending to physiological needs are generally obligatory activities, the neglect of which can quickly lead to a crisis of some form.

In contrast, leisure promotes health and social participation but the means by which these can be promoted are various and an important component of leisure is that the decision about how to fulfil these needs is left to the individual. In this sense, leisure is often spoken about as having the status of 'free-time'. However, as indicated earlier, the amount of 'free-time' available depends significantly on the individual's sex, age, employment status and family circumstances.

The first step in compiling a budget for leisure for the BSU households is thus to estimate the impact of sex, age, employment status, marital status and the presence of children on *the total amount of time available for leisure*. Subsequent steps (discussed in detail below) reflect how these factors influence the *kinds of leisure activities undertaken* and how the identified activities are costed in developing the leisure budget. The adoption of this approach is designed to ensure that the resulting leisure budgets are tailored to the leisure needs of individuals in the BSU households.

Building a Model of Time Available for Leisure

The data required to estimate the amount of 'free-time' available to individuals was derived from the 1992 *Time Use Survey* undertaken by ABS (ABS, 1993). Unfortunately, there are insufficient numbers of survey respondents with the same characteristics as those corresponding to the 12 basic BSU household types described earlier to produce reliable estimates of their average amount of 'free-time'.

To overcome this difficulty, a multiple-regression model was developed to estimate the effects of each of a range of personal characteristics (day of the week, sex, age, employment status, the presence of a spouse, age of spouse, employment status of the spouse and the presence of children of various ages) on the amount of 'free-time' available when all other factors are held constant.³

When estimated by applying standard multiple-regression techniques using ABS time use data, the model produced an estimate of a constant term, plus effects for each of the list of characteristic variables included in the model. Adding these effects to the constant term in appropriate combinations provides an estimate of the 'free-time available' to individuals in the 12 basic BSU household types, plus the four different combinations of employment status for the couple with a six-year-old child.

The result of these calculations in terms of hours of 'free-time' per week is presented in Table 10.1. The leisure needs of the various household types is derived by combining the individual profiles within the household, bearing in mind any constraints that apply because of the existence of joint family leisure activities.

The 'day of the week' variable is primarily intended to distinguish between week days, Saturdays and Sundays.

Table 10.1: Estimates of the Weekly Hours of Time Available for Leisure ('free-time') for Adults in Particular Household Types

		Employment Status	Modest But Adequate House type	Men	Women
H1a	S Pri M	FT	1-bedroom unit	na	34.84
H1b	S Pur M	FT	2-bedroom unit	na	34.84
H2a	C Pur M	FT FT	2-bedroom house	35.63	30.44
H2b	C Pri M	FT FT	1-bedroom unit	35.63	30.44
H3a	C+2 Pur M	FT FT	3-bedroom house	30.62	25.43
H3b	C+2 Pri M	FT FT	3-bedroom unit	30.62	25.43
H4a	S+g6 Pur M	FT	2-bedroom house	na	32.19
H4b	S+g6 Pri M	FT	2-bedroom unit	na	32.19
H5a	AS Own M	Rtd	3-bedroom house	na	54.65
H6a	AC Own M	Rtd	3-bedroom house	57.77	53.68
H7a	C(FF)+g6 Pur M	FT FT	3-bedroom house	32.98	28.03
H7b	C(FF)+g6 Pri M	FT FT	2-bedroom unit	32.98	28.03
H7f	C(FN)+g6 Pur M	FT NILF	3-bedroom house	39.54	43.53
H7g	C(FN)+g6 Pri M	FT NILF	2-bedroom unit	39.54	43.53
H7j	C(FP)+g6 Pur M	FT PT	3-bedroom house	35.17	35.93
H7k	C(FP)+g6 Pri M	FT PT	2-bedroom unit	35.17	35.93
H8a	C+b14 Pur M	FT FT	3-bedroom house	32.64	28.08
H8b	C+b14 Pri M	FT FT	2-bedroom unit	32.64	28.08
H9a	C+g3 Pur M	FT FT	3-bedroom house	31.27	26.25
H9b	C+g3 Pri M	FT FT	2-bedroom unit	31.27	26.25
H10a	C+3 Pur M	FT FT	3-bedroom house	26.43	21.24
H10b	C+3 Pri M	FT FT	3-bedroom unit	26.43	21.24
H11a	C+4 Pur M	FT FT	3-bedroom house	24.07	18.67
H11b	C+4 Pri M	FT FT	3-bedroom unit	24.07	18.67
H12a	S+2 Pur M	FT	3-bedroom house	na	29.65
H12b	S+2 Pri M	FT	3-bedroom unit	na	29.65
Low Cost					
H1c	S Pri L	Un	1-bedroom unit	na	48.53
H2c	C Pri L	Un Un	1-bedroom unit	50.64	45.45
H3c	C+2 Pri L	Un NILF	3-bedroom unit	49.82	39.09
H4c	S+g6 Pri L	NILF	2-bedroom unit	na	44.52
H4d	S+g6 Pub L	NILF	2-bedroom walk-up	na	44.52
H5b	AS Own L	Rtd	3-bedroom house	na	54.65
H5c	AS Pub L	Rtd	pensioner housing	na	54.65
H6b	AC Own L	Rtd	3-bedroom house	57.77	53.68
H6c	AC Pub L	Rtd	pensioner housing	57.77	53.68
H7c	C(UN)+g6 Pri L	Un NILF	2-bedroom unit	52.17	41.44
H7d	C(UU)+g6 Pri L	Un Un	2-bedroom unit	51.96	46.77
H7e	C(UU)+g6 Pub L	Un Un	2-bedroom unit	51.96	46.77
H7h	C(FN)+g6 Pri L	FT NILF	2-bedroom unit	39.54	43.53
H7i	C(FU)+g6 Pri L	FT Un	2-bedroom unit	35.22	44.53
H8c	C+b14 Pri L	Un NILF	2-bedroom unit	51.53	41.74
H9c	C+g3 Pri L	Un NILF	2-bedroom unit	50.47	39.90
H10c	C+3 Pri L	UnNILF	3-bedroom unit	45.62	34.90
H11c	C+4 Pri L	UnNILF	3-bedroom unit	43.27	32.33
H12c	S+2 Pri L	NILF	3-bedroom unit	na	41.71
H12d	S+2 Pub L	NILF	3-bedroom walk-up	na	41.71

KEY: S = single person; C = couple; S+1, 2 = sole parent plus 1, 2 children; C+2, 3, 4 = couple with 2, 3, 4 children; g6 = 6-year-old girl; b14 = 14-year-old boy; g3 = 3-year-old girl; A = aged; (FT) = full-time work; Rtd = retired; NILF = not in the labour force; PT = part-time; Un = unemployed; Pri = renting privately; Pur = purchaser; Pub = public; Own = owner.

Source: ABS, *Time Use Survey 1992*, unit record file data.

Table 10.1 shows the wide variation in the time constraints faced by different individuals, ranging from just over 19 hours a week of 'free-time' available to the 35-year-old woman in household H₁₁ (who is employed full-time and has a husband and four children) to almost 58 hours a week available to the 70-year-old man in the retired couple household H₆. As might be expected, the 'free-time' available to the retired, those not in the labour force and the unemployed is generally greater than that available to those engaged in full-time employment.

The effect of employment is to significantly constrain the time available for leisure, so that in a reversal of the usual expectation, the time resources available to those at the modest but adequate standard are less than for those at the low cost standard. Also, though not unexpectedly, the greater the number of children, the lower the time available for leisure.

As a general rule, women's 'free-time' is less than that available to men at a comparable stage of the life course. The exception to this rule is where husbands work full-time while the wife is either not in the labour force or is assumed to be working for only 15 hours per week.

Information on the typical uses of 'free-time' by household type is presented in Table 10.2, which summarises the proportion of time devoted to a class of leisure activities as a percentage of all leisure time and shows how, in addition to any time constraints, the preference for different leisure activities changes throughout the life course and varies by sex and employment status at a given stage of the life course.

10.3 The Leisure Activities Model

The BSU has developed a cost-by-frequency model in order to calculate the costs of leisure services as an input into the development of the leisure budget. The idea of using this kind of model to develop and cost the leisure budget was first proposed by the Family Budget Unit at University of York (McCabe and Waddington, 1992). While the BSU has adopted the same general principles as those incorporated into the York model, it has developed its own (generally more sophisticated) specific procedures.

The BSU approach involves adjusting information about the average frequency of leisure activities to take account of the constraints on the 'free-time' available to persons in each specific household type. The adjustment for the amount of 'free-time' available is achieved by applying a series of person-specific weights based on the analysis of the time-use data presented in Table 10.2, where the weights express the proportion of average free-time available to particular categories of people, i.e.:

$$\text{Weight} = \frac{\text{'Free-time' available to specific category}}{\text{Average 'free-time' available across the entire population}}$$

The (unweighted) average 'free-time' available to all persons in the 1992 *Time Use Survey* was 42 hours per week. A weighting of one, thus, indicates an average time constraint, while a weighting of two indicates that people in that category enjoy double the average amount of free-time, while a weighting of 0.5 indicates that people in this category have only half the average amount of free-time available for leisure activity.

The weighting has been further refined by recognising that people's leisure activity choices vary with their gender and age, irrespective of housing tenure (as summarised in Table 10.2). This adjustment allows for the fact that while retired people have more free-time than people

Table 10.2: Proportion of Total Leisure Time Devoted to Each Activity Category

	Modest but Adequate:						Low Cost:					
	Garden-ing	Social life and entertain-ment	Active leisure	Passive leisure	Other leisure	Total	Garden-ing	Social life and entertain-ment	Active leisure	Passive leisure	Other leisure	Total
	%	%	%	%	%	%	%	%	%	%	%	%
Males												
Household type												
H ₁	na	na	na	na	na	na	na	na	na	na	na	na
H ₂	6	26	14	54	1	100	6	22	10	61	2	100
H ₃	6	24	12	54	3	100	7	22	8	61	2	100
H ₄	na	na	na	na	na	na	na	na	na	na	na	na
H ₅	na	na	na	na	na	na	na	na	na	na	na	na
H ₆	9	14	15	61	1	100	9	14	15	61	1	100
H _{7(a)(b)}	6	26	12	54	2	100	na	na	na	na	na	na
H _{7(c)}	na	na	na	na	na	na	7	23	8	60	2	100
H _{7(d)(e)}	na	na	na	na	na	na	6	20	16	57	2	100
H _{7(f)(g)}	6	25	13	55	1	100	na	na	na	na	na	na
H _{7(h)}	na	na	na	na	na	na	6	25	13	55	1	100
H _{7(i)}	na	na	na	na	na	na	5	22	14	56	2	100
H _{7(j)(k)}	5	25	15	53	1	100	na	na	na	na	na	na
H ₈	6	25	14	53	2	100	7	23	9	60	2	100
H ₉	6	26	11	55	1	100	7	24	7	61	1	100
H ₁₀	7	25	10	55	3	100	8	22	6	62	2	100
H ₁₁	7	23	9	56	4	100	8	21	5	63	3	100
H ₁₂	na	na	na	na	na	na	na	na	na	na	na	na
Females												
Household type*												
H ₁	1	41	12	46	1	100	3	34	9	53	1	100
H ₂	3	36	11	49	1	100	4	28	8	58	2	100
H ₃	3	37	9	48	3	100	4	27	6	61	3	100
H ₄	1	42	10	45	2	100	3	34	8	54	2	100
H ₅	5	23	10	60	1	100	5	23	10	60	1	100
H ₆	7	18	12	60	2	100	7	18	12	60	2	100
H _{7(a)(b)}	3	37	9	48	3	100	na	na	na	na	na	na
H _{7(c)}	na	na	na	na	na	na	4	27	6	60	2	100
H _{7(d)(e)}	na	na	na	na	na	na	4	26	14	54	2	100
H _{7(f)(g)}	4	27	14	53	2	100	na	na	na	na	na	na
H _{7(h)}	na	na	na	na	na	na	4	27	14	53	2	100
H _{7(i)}	na	na	na	na	na	na	4	29	13	52	2	100
H _{7(j)(k)}	4	33	13	49	1	100	na	na	na	na	na	na
H ₈	2	36	11	48	2	100	4	27	7	60	2	100
H ₉	3	39	8	49	2	100	4	28	5	61	2	100
H ₁₀	3	40	5	48	4	100	4	27	3	62	3	100
H ₁₁	3	40	3	49	6	100	4	26	2	63	4	100
H ₁₂	0	42	10	45	2	100	2	33	7	55	2	100

Note: (a) 'Other Leisure' includes activities associated with hobby education, religion, voluntary work and civic obligation.

na = not applicable

* See Table 10.1 for descriptions of labour force status.

Source: Calculated from unit record file data from the *Time Use Survey, 1992*.

in full-time work, it is likely that they will spend it in different types of leisure activity than the young.

For this reason, specific weights have been developed for each of the five different classes of leisure activity referred to earlier, i.e. gardening;⁴ social life and entertainment; active leisure; passive leisure; and other leisure activities (hobby education, religion and civic participation). An activity-specific weighting has been developed for both the modest but adequate and the low cost standards, and these are presented in Tables 10.B.1 and 10.B.2 of Appendix 10.B, respectively.

These adjusted weights were derived using the following formula:

$$\text{Adjusted weight} = \frac{\text{'Free-time'}^1 \text{ devoted to an activity by specific category}}{\text{Average 'free-time' devoted to that activity across all categories}}$$

The adjusted activity weighting combines in a single number the effects of the overall time constraint ('free-time' availability) and the activity preferences of each individual. Taking the example of watching television, a weighting of one indicates that an average amount of time is spent in front of the television set, while a weighting of two indicates that people in this category commit twice the average amount of time to watching the television, while a weighting of 0.50 indicates that people in this category spend only half the average amount of time viewing television.

A further illustration taken from the actual BSU leisure budget may help to show the purpose underlying the use of the adjusted activity weights. Published data indicate that the average cinema customer goes to the cinema seven times a year. This average summarises the frequency of cinema attendance among people of all ages, sexes, employment status and family situations. The published data do not contain specific breakdowns which would help to determine how cinema attendance varies by household type.

However, the adjusted activity weights described above can be used to compensate for this lack of information. These weights capture the fact that a single female in full-time employment (household type H₁) (who has an adjusted activity specific weight of 1.23) is assumed to attend the cinema more often than the average, while the full-time employed married mother of four (H₁₁) (who has an adjusted activity specific weight of 0.65) will be assigned less than the average frequency of cinema attendance.

Multiplying the average overall frequency of cinema attendance (seven times a year) by the adjusted activity specific weights gives the result that the single female in full-time employment is likely to go to the cinema on average 8.61 times a year ($7 \times 1.23 = 8.61$), while the full-time employed married mother of four is likely to go to the cinema an average of 4.55 times a year ($7 \times 0.65 = 4.55$). In other words, where both women are in full-time employment, the adjusted activity specific weights, guide the allocation of the cinema visiting component of the leisure budget by predicting that the single woman will go to the cinema almost twice as often as the married mother with four children.

These adjusted activity weights are then used to adjust the information about average participation in various activities so that it reflects the typical leisure preferences of individuals in each of the 12 basic BSU household types. Multiplying the average frequency of participation by the activity-specific weight results in a weighted frequency of participation

Table 10.2 includes an allowance for gardening for all household types. Because households in rental properties do not have gardens, it is assumed that the 'gardening time' allocated to members of rental households is spent on other activities.

(rate) which is then assumed to reflect the time constraints and preferences associated with sex, age, parenthood, labour market activity.⁵

Although the activity-specific weighting system described above ensures, for example, that retired people spend more time than average in every activity (except 'social life and entertainment'), the time they spend on each type of activity does not increase proportionally with the amount of extra leisure time they have available in total. Passive leisure (mostly viewing television) and gardening increase their share of total leisure time at the expense of other activities such as participating in social life and entertainment activities.

As might be expected, the weights described in Tables 10.B.1 and 10.B.2 reflecting the time costs of employment are such that the time resources available to low cost households who are unemployed are higher than those of households at the modest but adequate standard who are in employment.

The extra time available to households at the low cost standard is reflected in the higher activity-specific weights for gardening, social life and entertainment, passive leisure, and other leisure when compared with equivalent household types at the modest but adequate standard. Once again, however, among low cost households, extra leisure time leads to a disproportionate growth in time spent in passive leisure (mostly in the consumption of extra television programs).⁶

The broad pattern of weights also shows the effect of the uneven domestic division of labour within households, in that females are subject to greater time constraints than their male partners (except in those households where non-employed women are the partners of men in full-time employment—i.e. in household types H₇). Compared to men, women as a rule spend more time in social life and entertainment and less time in passive leisure and gardening.

On average, women's time spent in active leisure is slightly lower than that of men and in the case of working mothers in large families (modest but adequate household types H10 and H11) is below the time recommended by health authorities (40 minutes of exercise, undertaken at least three times a week). In order to bring these women up to the appropriate health standards, passive leisure time has been reduced by a corresponding amount to make way for the necessary time available for active leisure. The effects of these adjustments on the activity specific weights is shown in Table 10.3.

Table 10.3: Adjustment of Women's Activity-Specific Weights to Meet Health Standards

Household Type	Modest but Adequate:	
	Active leisure	Passive leisure
H10: Couple, children aged 3, 6 and 14 years	0.34	0.42
H11: Couple, children aged 3, 6, 10 and 14 years	0.34	0.34

In general the activity-specific weights conform to the aggregate patterns of time-use illustrated in Tables 10.B.1 and 10.B.2 in Appendix 10.B.

Where the increased availability of leisure time due to unemployment among households at the low cost standard involves some expenditure on goods (e.g. on books, magazines, videos or CDs), these were costed at lower prices than at the modest but adequate standard, to avoid having the low cost leisure budgets exceed their modest but adequate counterparts.

The weighting for teenage boys (14 years of age) is based on the estimation of 'free-time' available to 14-year-old males not in part-time employment (reflecting the hours devoted by the boy to education). This prediction was derived from the 1992 *Time Use Survey* using the regression procedure outlined above, and the results produced are summarised in Table 10.4.

Table 10.4: Predicted 'Free-Time' Availability and Activity-Specific Weights for 14-Year-old Boys

Activity	Hours per week	Activity-specific weight
Gardening	0.75	0.40
Social life and entertainment	15.97	1.38
Active leisure	9.43	1.60
Passive leisure	18.28	0.83
Other leisure	0.20	0.34
Total leisure	44.63	1.06

Estimates of the leisure time available to 3-, 6- and 10-year-old children have been derived, where possible, from the advice and recommendations of paediatric and educational experts. In general, children are assumed to accompany their parents in family leisure outings and also in one-half of entertainment activities such as attending the movies, theatre (puppet theatre, pantomime) and other shows.

While children's participation rates are affected by their parent's participation rates (which are in turn affected by family composition, especially by the presence of young children) they have not been allowed to fall below the levels recommended by experts. This is designed to ensure that the leisure budgets have some basis in the normative standards currently prevailing in the Australian community.

It is important to note that use of the method described above to develop the BSU leisure budget can be criticised on the grounds that because adults of working age at the low cost standard have more time for leisure activities than (employed) adults in modest but adequate households, they incur higher leisure costs. However, this is not so.

While the weighting system described above allocates a higher proportion of leisure items such as books, magazines, videos and compact discs to adults in households at the low cost standard, the use of lower prices for these items compared to similar modest but adequate households results in most cases in lower costs overall for these specific forms of leisure activity.

In effect, it has been assumed that adults in low cost households listen to music (tapes, CDs and radio) more often, re-use their blank video tapes more frequently to record TV programs, watch more TV overall and borrow books and magazines from public libraries on a more frequent basis than similar households at the modest but adequate level.

In addition, swimming, a popular sport in Sydney, has been selected as a moderately-priced (\$2.80 per adult visit to the heated council pool in the Hurstville Local Government Area) recreational and sporting activity and allocated to all adult members in households at both standards.

As with other leisure activities, the weighting system allocates a higher proportion of active leisure (i.e. swimming) to adult females in low cost households, although it has been assumed that after the allocation of some costs for swimming (the same as for adult females of the same age in modest but adequate households) that the 'extra' swimming among adult females in low cost households occurs at places where there are no costs involved such as local beaches, ocean pools and lagoons.

10.4 The Six Major Categories of Leisure Activity

Leisure activities have been divided into the following six groups to facilitate the development of the leisure budget:

- home and social activities;
- gardening;
- arts, entertainment and outings;
- sporting activities;
- spectator sports; and
- holidays.

Activities within each category have been selected for inclusion in the budget on the basis of information about their popularity among those in the relevant age and sex groups (modified by the assumptions mentioned earlier) and after applying the 50/75 utilisation rule wherever possible.

Before discussing each of the above six leisure activity categories, several general comments on the interactions between the leisure budget and other component budget areas should be emphasised.

To avoid the problem of double-counting, some costs have been excluded from the leisure budget. The electricity costs associated with watching television, or listening to the radio or cassette tapes, for example, are found in the energy budget (Chapter 4). Transport costs associated with visiting friends and relatives are included as part of the transport budget (Chapter 9). The costs of a telephone and the dinnerware and other items necessary to entertain guests, are included in the household goods and services budget (Chapter 7).

The extra food expenses involved in entertaining guests have not been included in either the leisure or food budgets, although as explained in Chapter 2, it has been assumed for the purposes of the household budgets that these are cancelled out by return invitations which would otherwise require a downward adjustment to the food budgets. For the same reason, the cost of gifts to hosts, (e.g. flowers, or a bottle of wine) have also been excluded on the 'gifts-in equals gifts-out' assumption also described in Chapter 2.

As noted earlier, reciprocal arrangements between family, friends and neighbours are assumed to exist in regard to baby-sitting and child care entailed in any out-of-home entertainment for parents. The extra food expenses involved in picnics, short trips and holidays have been included as part of the leisure budgets under the category of 'holiday food loading'.

Home and Social Activities

Adult Participation in Home and Social Activities

According to a recent version of the ABS publication *Australian Social Trends*, on an average day in 1992, 95 per cent of people participated in some form of home leisure as a main activity (ABS, 1995, p. 164). Most of these activities are relatively inexpensive, often costing nothing. Relaxing, doing nothing and just thinking, for example, do not cost anything; neither does reading library books (as long as they are returned on time and do not incur a fine).

It is a characteristic of the leisure activities that take place in the home that there is no service cost and, aside from any associated energy costs, most of the cost is incurred in buying the appropriate leisure goods. Moreover, after the initial outlay on these leisure goods has been made, watching television and videos, playing computer or TV-linked games and listening to the radio or recorded music are cheap forms of entertainment, as are playing board games or cards which are virtually free.⁷

The majority of respondents in all of the focus groups conducted as part of the budget standards study thought that watching the television was a basic necessity and a substantial proportion of participating households had more than one set. Among single females, a night out was often spent watching videos with friends. These are again virtually costless forms of leisure activity.⁸

Even when home-based leisure activities do involve a positive financial cost, the outlay is often not very great. Newspapers and magazines are fairly cheap, as is the hire of videos. Gardening is also relatively inexpensive, and the cost of tools is in any case included in the household goods and services budget (see Chapter 7), not in the leisure budget (although the cost of seeds, seedlings, fertiliser, is part of the leisure budget).

Feedback received from the BSU focus groups also revealed that attitudes to gardening vary according to age and work force status. 'It's a necessity but it's a bit of a chore', said a mother of two children who was engaged in full-time employment, while a female above work force age said: 'I find it quite relaxing'.

The ABS publishes a breakdown by age of participation in home-based leisure activities which provides good estimates of the numbers participating in those activities which are undertaken on a daily basis (e.g. watching television), but rather poorer estimates of the numbers participating in those home leisure activities which are typically undertaken only weekly or monthly (e.g. mowing the lawn or going for a Sunday drive).

The aim of the BSU budget standards research is to capture the cost of leisure over the entire year and to show how this differs by household type. For this purpose, data from the Australian Living Standards Study (ALSS) undertaken by the Australian Institute of Family Studies (AIFS), although limited to households with dependent children living in two outer metropolitan suburbs of Melbourne, has been used to provide a better indication of the percentage of males and females participating in passive leisure activities over a six-month period in 1991 (McDonald, 1993a, Table 9.1; McDonald, 1993b, Table 9.1).

This means, as noted earlier, that it is possible for the increased *leisure time* of low cost households not to involve higher *leisure expenditures*.

⁸ Households at the low cost standard who rent videos were not assigned the cost of any 'new release' videos.

Children's Home Leisure Activities

Until the study undertaken jointly by the Australian Broadcasting Authority (ABA) and the Office of Film and Literature Classification (OFLC) in 1994-5, very little information was available on how Australian children between the ages of eight and 14 spend their leisure time (ABA and OFLC, 1996).

That research involved both a qualitative aspect—consisting of 10 focus groups comprising 80 parents and children altogether, as well as a quantitative aspect—comprising an Australia-wide survey of 743 parents and 743 children and teenagers aged between eight and 17 years, and a time-use diary seeking information on the extent of participation in various forms of leisure activity completed by 500 children over a period of three days (including weekdays and weekends).

The study revealed that on an average diary day, most teenagers and children (87 per cent) watched television. Homework and/or work on a computer, while not a leisure activity, was the second most frequent activity, mentioned by 55 per cent of children and teenagers surveyed. General play was the next most frequently mentioned activity (37 per cent), followed by 'going to places' (34 per cent), playing sport (32 per cent), reading (30 per cent), 'hanging around' (28 per cent), and listening to the radio (21 per cent) (ABA and OFLC, 1996, Table 9).

Reading

According to recent national statistics more women than men read magazines, while more men than women read newspapers (ABS, 1995a, Table 5). Around 58 per cent of women and 47 per cent of men indicated that they had read books in the week of the survey. These findings confirm other data on the reading habits of Australians, which shows that there are consistent differences between the sexes, with women on the whole reading more than men.

A survey by the Department of the Arts, Sport, the Environment, Tourism and Territories (DASETT, 1991) found that while 65 percent of males aged 14 and over reported 'reading' as a home activity, 76 per cent of women did. Results from the ALSS conducted in Berwick and Box Hill, (McDonald, 1993a; McDonald, 1993b) produced broadly consistent findings, with a reported 86 per cent of women and 73 per cent of men having read books in a six month period in 1991.

On the basis of this evidence, the cost of buying a number of new books a year, as well as varying numbers of newspapers and magazines have been included in the leisure budget of all households.⁹ The adjustment of these data by activity-specific weight, captures the fact that the retired have more opportunity to read than parents in full-time employment, and therefore would need to purchase more reading material.

All households are also assumed to own a collection of books and to exchange books with friends and to make use of public library facilities. The households with children are also assumed to buy six new books a year in order to encourage the formation of literacy skills.¹⁰

⁹

The estimate of the average yearly consumption of newspapers is derived from an analysis of 1993-94 HES data. Cheaper books and magazines (but not newspapers) have been incorporated into the low cost budgets.

The same number (six per year) of children's books have been priced at the same level in both the low cost and modest but adequate budgets.

Television and Video

By far the most popular activity engaged in by both sexes and all age groups, if the frequency of participation is any guide, is watching television. Surveys consistently report that watching TV or video is the activity with the highest rates of participation, regardless of whether respondents are asked to record daily (ABA and OFLC, 1996), weekly (DASETT, 1991), or six-monthly activity (McDonald, 1993a; 1993b).

According to the ALSS, watching television ranks above other activities, with a higher participation rate for adults of both sexes than, for example, visiting friends or family, having them to visit, reading newspapers, magazines or books, gardening, and (for women) cooking for pleasure—even when the reporting period covers six months (McDonald, 1993a).

It is thus obvious that there is a very high level of television watching among the Australian population. However, the information presented so far concerns patterns of *participation* not *of ownership*. On the question of ownership, the ALSS found that 96 per cent of families with children had a colour TV in the household and 85 per cent had a video recorder (McDonald, 1993a).

This information is confirmed by Ironmonger (1996), which shows that in the year ended March 1995, only 2.3 per cent of Australian households were without a colour television set. Even among those who were both young and unemployed in that year, the rate of colour television ownership did not fall below 93 per cent.

In 1995, the Morgan-Gallup Organisation, the Australian Broadcasting Authority (ABA) and the Office of Film and Literature Classification (OFLC) found that around three-quarters of couples with two or more children in the household had a second television set, and analysis of the Morgan-Gallup data shows that in more than 50 per cent of these households, the second set was also a colour model (ABA and OFLC, 1996, Table 6).

This level of TV ownership is so high that it justifies the assumption that every BSU household type, regardless of the standard of living, should be allocated at least one colour television set. Among couples with two or more children, and on the basis of applying the 50/75 per cent ownership rule, households at the modest but adequate standard have been allocated a second (portable) colour television.¹²

According to all the sources mentioned above, more than 80 per cent of Australian households own a video recorder but less than 20 per cent (regardless of the number of children) own two. The cost of a moderately-priced video cassette recorder thus forms part of the modest but adequate leisure budget and a basic model video recorder is included in the low cost budgets. 12 Households have also been allocated money for video rental.¹³

¹² It was assumed that no external TV antenna (other than that provided by the Body Corporate) is required to receive a clear picture in Hurstville.

¹³ Electrical goods such as a colour television set, video recorder and CD player have been priced at the lower end of the available range of retail prices when developing the low cost budgets, but in the middle of the range when developing the modest but adequate budgets.

¹⁴ The frequency of video rental had been derived from an analysis of the 1993-94 HES data. Rental videos have been costed at \$5 each ('new release') and \$3 each ('weekly rental'), with a pack of (two) blank videos priced at \$16 (modest but adequate) or \$7 (low cost).

Radio, CD Players and Cassette Recorders

On an average day, over 69 per cent of Australians play the radio or some form of recorded music, either as a main activity or simply as background accompaniment to another activity (ABS, 1994, p. 30). According to the DASETT *Recreation Participation Survey*, in any one week more than 75 per cent of Australians, irrespective of their gender, listen to the radio and more than 65 per cent listen to recorded music (DASETT, 1991). It comes as no surprise that over 90 per cent of households in Australia own at least one radio (ABS, 1995).

Unfortunately, there is little useful information about the actual number of radios existing in any one household, although casual observation suggests that ownership of more than one radio is common. The ABA/OFLC survey referred to earlier estimated the rate of ownership of two or more radio/cassette/CD players among households containing children and teenagers to be as high as 83 per cent (ABA and OFLC, 1996, Table 6).

In the absence of more detailed information, each BSU household at both the modest but adequate and low cost standards has been allocated a radio/cassette/CD player. Families with children over 10 years have been allocated one radio/cassette/CD player to each of the children aged between 10 and 14 years, since the evidence indicates that the overwhelming majority of children in those age groups have a separate player in their own bedrooms (ABA and OFLC, 1996).¹⁴

Stereo Systems

The Morgan-Gallup material referred to above suggests that the ownership of high fidelity stereo systems (at only 39 per cent of households) is below the 50 per cent threshold. However, the ABA/OFLC results also show that among households with children over eight years of age, over 89 per cent own at least one (not necessarily high fidelity) stereo system, and 30 per cent own two or more.

On this basis, all BSU households with children over eight years of age have been assigned some form of stereo system. The cost of a moderately priced 'midi' stereo system thus forms part of the modest but adequate budget standard and the most basic music centre (radio/CD or radio/cassette player) is included as part of the low cost standard.

Electronic Games

In 1992, the daily rate of participation in games (including electronic games) for all Australians over the age of 14 years was less than 11 per cent (ABS, 1994, p. 30). However, participation in electronic games has probably increased since that time. The 1991 *Recreation Participation Study* indicated that young people under 20 were more likely to play computer or other electronic games than older people, and boys were more likely to play than girls (DASETT, 1991). Participation rates were highest (45 per cent) among boys aged between 14 and 19 years of age.

The ABA/OFLC survey of *Families and Electronic Entertainment* (and other research on this topic) found high rates of ownership of electronic entertainment equipment in households with children and teenagers, including personal computers and TV-linked games machines. In 1996, Apple Computers Australia found that nearly half (47 per cent) of households with children

¹⁴ Households have again been allocated an amount based on the analysis of the 1993-94 HES data, for the purchase of pre-recorded music. The second (10-year-old) child in households at the low cost standard was allocated a less expensive (second) radio/CD player.

have a personal computer, compared with 27 per cent of households without children. Finally, Reark Research's 1995 study also found higher than average levels of ownership of computers in households with children (cited in ABA and OFLC, 1996).

The most recent information, drawn from the *Families and Electronic Entertainment Study*, indicates that among households with children and adolescents, 59 per cent owned a personal computer and 58 per cent owned a TV-linked game (ABA and OFLC, 1996). The likelihood of owning a personal computer (and a modem) increases with household income. In contrast, the lower the income, the greater the likelihood that electronic games will be played on a TV-linked device (ABA and OFLC Table 5, Appendix E).

Parents who participated in the BSU focus groups discussions expressed some anxiety that their children's educational prospects were being disadvantaged by the lack of a home computer. 'That is what I am trying to save for at the moment', said one female single parent, 'I have three kids aged eight, 10 and 12. They are desperately in need of a computer but I can't afford one'.

In the light of this information on ownership rates, a personal computer, printer and games software have been allocated to all BSU households with a 14-year-old boy at the modest but adequate standard. Personal computers have not, however, been costed as part of the low cost budgets.

Cards, Board Games and Other Hobbies

It has been assumed that all households, regardless of the standard of living, own at least one pack of playing cards. It is further assumed that families with children own a Scrabble set and a game of Monopoly. The younger single women and the younger couple without children have also been allocated a game of Trivial Pursuit, while retired individuals and couples have been allocated chess, draughts and backgammon sets.

All households are assumed to own some sort of camera and thus use film and film processing and own a photo album, so that the cost of these has also been included in the leisure budget.¹⁵

Due to the wide range and varying cost of participation in many arts, crafts or hobbies a popular pastime, tapestry (sometimes also called fancywork or ornamental needlework) undertaken by many women of all ages was included in the leisure budgets. A specific kit (priced at \$23.35) was included in the modest but adequate budgets only. The tapestry was assumed to be completed within a 12-month period.¹⁶

Children's Toys

There is little information available on the leisure activities of young children. Both the three-year-old and six-year-old girls in the BSU households are still young enough to be playing with

¹⁵ The costs of photographic equipment (priced at Kmart) included in both the modest but adequate and low cost budgets are as follows: 35mm camera (\$69); photo album (large, \$7.95; small, \$4.25); roll of (24) film (\$2.95); film processing(\$6.95).

¹⁶ School children may also participate in arts, crafts or hobbies as part of their schooling, as many primary schools offer the option of special classes in craft, drama and music. However, no information is available on the average numbers of pupils attending these activity classes, or on the costs involved in attending them, and given that any particular class involves relatively small numbers of students, these costs have not been included in the leisure budget.

toys, especially the three-year-old. On the question of what toys are appropriate to include for these children, the research has benefited from the advice provided by the Kindergarten Union.

On the basis of that advice, the toys selected for the three-year-old are recommended as being not only safe but they also promote the development of children's manual, cognitive and social skills.¹⁷

Discussing the issue of what expenditure is necessary on children's toys, parents participating in the BSU focus group discussions thought that a bicycle was an essential item for those children old enough to ride, but that meeting children's needs for, and expectations about, toys imposed a heavy financial burden on the family as a whole. Sole parents said they coped by staggering purchases throughout the year, and most parents mentioned the significant support received from grandparents in meeting the costs of toys and sporting equipment (see Chapter 13).

Toys for a 3-year-old girl		
Stacking bin, 'toy box'	Mini loader	Crayons*
Doll	Boats	Pastels*
Soft toy	Plastic fun apron	Chalk*
Doll's stroller	Pair of paper scissors	Chalk board*
Basic Bricks set	Washable poster paint*	Funtime Play Dough*
Basic plates	Paint brushes*	Cutters for dough play*
Gears-Go-Round	Sponge painting pack*	Rolling Pin*
Xylophone	Paint palette*	Balls*
Bucket and spade	Craft glue (500 ml)*	Inflatable arm bands
Car set	Coloured pencils*	Single swing & 2 swing hooks

* These toys are assumed to be shared with the six-year-old sister where there is one.

In addition to the toys she is assumed to share with her younger sister, the six-year-old girl in household types H₁₀ and H11 has been allocated the following toys:

Toys for a 6-year-old girl (with a 3-year-old sister)		
Stacking bin, 'toy box'	Plastic bead set	Coloured paper
Doll	Hand puppets	Mosaic gummed paper shapes
Doll's bassinette	Blow bubble pack	Recorder
Soft toy	Card games	Swing
Bike (girl)	Jigsaw puzzles	Bucket and spade
Bicycle tube	Fun and Games Book	Swim cap
Repair tool kit	Colouring in book	Roller skates
Helmet child	Scissors	

In the household types (H₃, H₇, H12) where the six-year-old girl has no younger sister, she has been allocated those items in the toy box for the three-year-old girl marked with an asterisk in the above listings.

¹⁷ Children's toys were costed at a range of retail outlets, including Toys 'R' Us, Rebel Sports, Ikea and BBC Hardware (for the toy box itself).

According to the advice of educational toy retailers, boys aged 10 and 14 years start to lose interest in toys and become more interested in electronic games sporting equipment and outdoor activities. The toys and leisure goods allocated to boys of these two ages are shown below.

It has been assumed that while children at any standard of living require these toys and leisure goods, households living at the low cost standard purchase them from the cheapest possible retail outlets and take advantage of sales and 'specials' wherever possible.

Those households at the modest but adequate standard have thus been assumed to purchase their children's toys from educational toy outlets, with the difference in the prices of toys being captured by discounting the educational toy retailers' prices by 20 per cent when costing the low cost leisure budgets.

Toys for a 10-year-old boy	
Skateboard	Boogie board
Knee and elbow pads	Swimming goggles
Basket Ball	Swim mask/snorkel
Volleyball	In-line skates
Jigsaw	Bike (boy)
Card game	Bicycle tube
Twister	Repair tool kit
Hand-Held Game	Bike pump
Fireball Challenge	Cricket set

Leisure goods for a 14-year-old boy	
Soccer ball	Bicycle helmet
Football	Inner tube
Board game	Bike pump
Computer game	Puncture repair kit
Model Kits — Star Wars	Skateboard
Pack of cards	Protective pads
Bicycle	

Visiting, Being Visited and Social Contact by Telephone

Following the procedure adopted by the UK Family Budget Unit, it has been assumed that, as with the exchange of gifts, visiting is reciprocal and the net effect is that the expenditure outlaid in making guests welcome is recovered, as noted earlier, by the savings achieved when enjoying the hospitality of others (Bradshaw, 1993).

Applying this principle implies that no special allowance has been made in the leisure budget for the costs associated with hospitality, whether in terms of food or liquor or direct entertainment expenses. The presumption is that the household has the appropriate furniture, a stock of linen, crockery, cutlery and that the allocated leisure facilities are sufficient to provide home entertainment for guests and visitors (see the household goods and services budget in Chapter 7).

Gardening

Following suggestions made by the first wave of BSU focus groups, an allowance for gardening has been included as a leisure activity for those who own or are purchasing their home. Consequently, households with these characteristics have been allocated a yearly supply of flower punnets, garden plants, indoor plants, potting mix and fertiliser.

The quantities of these gardening supplies have been adjusted using the activity-specific weights to reflect the wide variety of interest in gardening according to age, employment status and family type. The gardening tools and implements themselves are found in the household goods and services budget described in Chapter 7.

It has been assumed that private and public renters do not garden. This is a consequence of these households living in a home unit (or similar public housing stock) accommodation, where it has been assumed that the landlord accepts responsibility for maintaining the garden through contributions to body corporate fees.

Arts, Entertainment and Outings

Adult Participation in the Arts and Entertainment

According to the most recent survey of attendance at selected cultural venues, 83 per cent of Australians over the age of 14 years attended at least one cultural venue in the 12-month period ending in 1995 (ABS, 1996). Cinemas were the most visited cultural venues in terms of people attending (62 per cent), followed by a botanic garden (39 per cent), libraries (38 per cent) and animal and marine parks (35 per cent).

Women have higher rates of attendance than men at all cultural venues, except in the case of classical music, where the rate is the same for both sexes. The ABS also provides a breakdown of attendance by family status, age and employment status. Single adults have the highest rates of attendance, while attendance declines with age and being employed increases the probability of attendance.

Children's Cultural Attendance

While there are no direct data on the attendance of children at various cultural venues, an approximate pattern of attendance for a 14-year-old boy can be constructed by utilising data on the attendance of 15- to 17-year-olds. The attendance rate at cinemas among this group is 90 per cent. However, apart from using libraries, attendance at all of the other cultural venues included in the ABS study does not reach the 50 per cent threshold (ABS, 1996, p. 16).

It has therefore been assumed that younger children go to cultural venues either in the company of their parents or as a part of school excursion.

Allocating Participation in Cultural Activities to Households

Combining the information on how attendance at cultural venues varies by sex, household type, age and employment with the data on the frequency of such activities, the following allocations have been made. All households, at both the modest but adequate and low cost standards, have some allocation for attendance at a cultural venue. This allocation can be considered in two parts: first, an allocation for *expenditure* on specific activities justified by the application of the 50/75 per cent rule; and secondly, an allocation which is justified on the basis of *the frequency* of participation rates in any cultural activity.

Attendance at the cinema is a specific activity which can be allocated on the grounds of participation in this activity alone. Among participants, an estimated median frequency of attendance at the cinema in any one year has been calculated from ABS data (ABS, 1996 pp. 32-34). Those attending the cinema are estimated to attend the screening of seven films a year.

At the modest but adequate standard, every member of each household type (except three-year-old children) are assumed to visit the cinema. Among those who attend the cinema, the average frequency is modified by applying the weights for social life and entertainment presented earlier. At the low cost standard, only the 35-year-old woman living alone is assumed to be following the same pattern.

Participation rates for full-time students indicate that it is likely that the 14-year-old boy, at both standards of living, will also attend the cinema during the course of a year. The average frequency of cinema attendance has been modified by a weight appropriate to a 15-year-old male. All other households at the low cost standard are not allocated a budget for specific expenditure on cinema because the available information indicates that participation does not reach the 75 per cent threshold.

At both standards of living, participation in *some* form of cultural activity is sufficient (83 per cent) to warrant a yearly allocation for cultural activity attendance. These have been allocated using the participation rates to identify the appropriate form of activity and associated level of expenditure for each household type.

Participation of single adults in cultural activities is higher than average, and bearing in mind the effects of sex and age, the 35-year-old single female is likely to visit a variety of cultural venues. All households of this type have thus been assumed to attend pop music concerts at a frequency determined by multiplying the average for this activity by the appropriate weight, while at the modest but adequate standard this household has been allocated an additional amount for attending either a museum or an art gallery each year.

Both two parent and sole parent families with dependent children are assumed to visit an animal or marine park once a year. Children younger than 14 years of age are assumed to accompany their parents. Extra visits as part of school activities are captured in the household goods and services budget which includes an allowance for the cost of school excursions (see Chapter 7).

Households containing older people reveal a preference for attending venues such as libraries and botanic gardens which often charge no entrance fee. Members of other household types, especially children, are assumed to be regular users of these venues as well. Any indirect costs associated with attending these venues is captured in the transport budget (see Chapter 9).¹⁸

Outings and Day Trips

In 1992-93, 81 per cent of residents (4.8 million people out of a total population of 5.9 million) of NSW took short day trips (Tourism NSW, 1994). Day-trippers made a total of 10.7 million trips, an average of 2.2 trips per person. The most popular form of day trip, undertaken by 48 per cent of those who took day trips, involved visits to friends or relatives. The next most popular, undertaken by 42 per cent, was driving for pleasure and sightseeing.

¹⁸

Older households at the low cost standard do not go to the cinema often enough to exceed the 75 per cent threshold and the budgets therefore make no allowance for cinema costs in these cases.

There are some differences in the types of day trips taken by different age and life-cycle groups. People aged 14 to 24 were more likely than older age groups to be taking a trip to visit the theatre, opera, ballet, concert or cinema. Day trips to attend sport and recreation events also tended to be more popular for this age group than for older groups.

Not surprisingly, dependent children and families with young children are more likely than other life-cycle groups to travel to visit theme parks and animal parks, wildlife reserves and zoos. It would seem, too, that a significant number of dependent children go to the cinema, participate in sport and recreational activities and go on school excursions without their parents, since a higher proportion of *dependent children* engage in these activities than do *families* with young children.

For the older age life-cycle group of 55 years and over, taking trips for pleasure driving and sightseeing (38 per cent), and visiting friends or relatives (39 per cent) were most popular. Males were more likely than females to take trips to participate in sporting and business activities. The relevant age-specific frequencies of undertaking day trips are: 2.6 trips per year for females aged 35 years and males aged 40 years; and 1.5 trips a year for 70-year-old males and females (Tourism New South Wales, 1994).

The level of participation in day trips is sufficiently high to justify its inclusion in the budget of all households. No allowance has been made for extra admission costs while on these trips, although the costs of transport are included in the BSU transport budget (see Chapter 9).

An overall summary of the assumed attendance profiles of each household type in arts and entertainment activities is presented in Table 10.5.

Table 10.5: Allocation of Attendances at Arts and Entertainment Activities

Household Type	Modest but Adequate					Day Trip	Low Cost			
	Cinema	Pop Concert	Animal/Marine Park	Art Gallery Museum			Cinema	Pop Concert	Animal/Marine Park	Day Trip
H ₁	✓	✓		✓		✓	✓	✓		✓
H ₂	✓					✓				✓
H ₃	✓		✓			✓		✓		✓
H ₄	✓		✓			✓		✓		✓
H ₅	✓					✓				✓
H ₆	✓					✓				✓
H ₇	✓		✓			✓		✓		✓
H ₈	✓		✓			✓		✓		✓
H ₉	✓		✓			✓		✓		✓
H ₁₀	✓		✓			✓		✓		✓
H ₁₁	✓		✓			✓		✓		✓
H ₁₂	✓		✓			✓		✓		✓

Note: (a) The assumed costs of each form of activity are: cinema tickets; \$12 (modest but adequate), \$8.50 (low cost), \$7.50 (children); pop concert tickets; \$35 (modest but adequate), \$12 (low cost); animal/marine park, \$34.90 (family ticket); art gallery/museum, \$10; day trip, \$35 (modest but adequate), \$20 (low cost).

Sporting Activities and Physical Exercise

Adult Participation in Organised Sport

Although Australians regard themselves as a 'sporting nation', the data indicate that adult participation in organised sport is relatively low. In 1993-94, one-third of Australians aged 15 and over were involved either as players (3.1 million) or non-players (0.5 million) in some form of organised sporting activity (ABS, 1995a).¹⁹ Participation in sport varies with sex and age, with more men (35 per cent) than women (23 per cent) taking part in some form of sporting activity, while among both sexes participation in sport declines with age.

The majority (56 per cent) of young men aged 15 to 24 play some kind of sport, while just 43 per cent of men aged 25 to 34 and a mere 20 per cent of men aged 65 and over are involved in organised sport. Among women, the decline begins from a lower base, with only 39 per cent of those aged 15 to 24 participating, and with 28 per cent of women aged 25 to 34 and a scant 12 per cent of women aged 65 and over taking part in organised sport (ABS, 1996a).

Children's Participation in Organised Sport

The majority (79 per cent) of children aged five to 14 play sport regularly at school and nearly half (43 per cent) play a sport outside of school hours (ABS *Population Survey Monitor*, 1995b). Sport plays a rather more important role in children's lives, largely because in most schools, physical education is a compulsory part of the school curriculum, at least until year 10 (when children are approximately 15-years-old) (Australian Sports Commission, 1991, Appendix).

Three studies commissioned by the Australian Sports Commission provide information about preferences and participation rates in junior sport in selected areas in Australia, while a fourth gives some detail on the costs of sport activity undertaken outside of school (Australian Sports Commission, 1991; Clough and Traill, 1992; Clough, McCormack and Traill, 1994; Kirk *et al*, 1996).

Following the 50/75 per cent rule described in Chapter 2, neither boys' nor girls' participation in organised sport outside of school hours justifies the inclusion of these activities in either the modest but adequate or the low cost budgets. However, on the advice of physical education authorities, both the 14-year-old and the 10-year-old boys are assumed to play soccer on the weekend, while the six-year-old girl is assumed to participate in 'Little Athletics' outside of school hours.

It is presumed that schools provide the sporting equipment to participants in school sport, and that students need only to provide their own school sports uniforms. Often, these sports uniforms (especially for younger children) are no more elaborate than a t-shirt and a pair of shorts of the appropriate colour. The cost of these school sport uniforms is found in the clothing and footwear budget (see Chapter 6).

Some extra costs can occur when children are selected to represent their schools in various activities, e.g. in sport, music, drama, but because of the variability of these costs and the small numbers of pupils involved, they have not been included in the BSU leisure budgets.

¹⁹

Since it is possible to be both a player and an office-bearer of a sporting organisation, a number of people are counted twice in these estimates.

Adult Exercise

A survey conducted in 1989 by the National Heart Foundation asked over 9,000 people aged between 20 and 69 a series of questions relating to the type of exercise they undertook for recreation, sport or health-fitness purposes. The average proportions of men and women engaged in vigorous forms of exercise (for example, football, netball, tennis, squash, athletics, jogging, running, keep-fit exercises, vigorous swimming) in the preceding two weeks was 38 per cent for men and 30 per cent for women. The proportions of those who went walking, however, were higher at 52 per cent of men and 59 per cent of women.

The popularity of walking is also indicated by the results of the AIFS Australian Living Standards Study, which asked adults in the Melbourne suburbs of Berwick and Box Hill whether they had 'often', 'sometimes', or 'never' participated in a number of leisure and recreation activities in the last six months (McDonald, 1993a and 1993b).

The most popular active recreation activities reported as having been engaged in 'often' or 'sometimes' for men were walking (84 per cent), going to the beach (66 per cent) and playing sport (51 per cent), while for women the equivalent figures were going for a walk (87 per cent), going to the beach (69 per cent) and participating in aerobics or swimming (43 per cent).

On the basis of this information, adults in all BSU households at both standards of living have been allocated a pair of good walking shoes, swimwear and appropriate swimming aids such as goggles and swimming caps (all included in the clothing and footwear budget).

Children's Exercise

A survey of school-age children in the Australian Capital Territory found that, away from school with family and friends, bicycle riding was the preferred activity for both sexes, mentioned by 80 per cent of girls and 76 per cent of boys, followed by swimming, mentioned by 77 per cent of girls and 64 per cent of boys. The third most popular activity with girls was skating (67 per cent) and with boys it was tennis (54 per cent) (Clough and Traill, 1992).

These results are confirmed by the study of six- to 12-year-olds in Western Australia which also found that with family and friends, the children most often went swimming, roller-skating, cycling and trampolining (Clough, McCormack and Traill, 1994).

On this basis, children at both the modest but adequate and low cost standards have been allocated swimwear (in the clothing and footwear budget) swim aids and accessories appropriate to their age, and (except for the three-year-old girl) a bicycle, a bicycle helmet, pump and a repair kit.

In addition, all children above six years of age have been allocated at least one sports ball—the 10-year-old boy a basketball and volleyball and the 14-year-old boy a soccer ball and a football. In addition, at the modest but adequate standard the 10-year-old boy has been allocated a pair of in-line skates, while the 14-year-old boy has been allocated a skateboard.

Spectator Sports

Adult Attendance at Sporting Events

According to the ABS survey of *Sports Attendance*, during the 12 months ended March 1995, slightly more than 44 per cent of the Australian population aged 15 and over attended a sporting event (excluding junior and school sport) (ABS, 1996b, Table 10). Men were

significantly more likely to have attended than women; 51 per cent of men as against 37 per cent of women.

The rate of attendance at sporting events also varies with age and employment status, with the attendance rate highest among 15-to 24-year olds and declining steadily with age after that. Any form of paid employment increases the likelihood that an individual will attend a sporting event, while being unemployed lowers the rate noticeably and not being in the labour force lowers the rate of attendance even more substantially.

However, sporting attendance only exceeds the 50 per cent threshold for males in the age range 15 to 54 years and no age group exceeds the 75 per cent threshold. On the basis of these figures, the cost of attendance at a sporting event for males of the appropriate age thus forms part of the modest but adequate standard budgets only.

Nationally, the most popular spectator sporting event was Australian Rules Football, with 33 per cent of males attending on at least one occasion, followed by Rugby League (27 per cent) and cricket (27 per cent) (ABS, 1996). For the purposes of establishing a budget standard, it has been assumed the males attending a sporting event will attend a rugby league game, this being the most popular football code in Sydney.

The two remaining issues to resolve are how frequently can spectators be assumed to attend the selected events and whether it is reasonable to assume that they will attend other sporting events as well as Australian Rules Football. Fortunately, the ABS has produced statistics on how frequently males attend selected sporting events. Among those who attend Australian Rules Football matches, the median number is five attendances a year (extrapolated from ABS, 1996, p. 21).

Calculating attendance probabilities on the basis of the ABS sports attendance data, there is less than a 50 per cent probability that spectators at even the most popular events will also attend any of the other selected sporting events. As a result, the modest but adequate budget standard includes allowance for younger males to attend five Rugby League matches a year.

No allowance is made for the cost of attending any other forms of spectator sports in the modest but adequate budgets, nor for males to attend any charged sports events in the low cost budgets, or for females at either standard.

Children's Attendance at Sporting Events

The Australian Sports Commission study of 1,048 school-age children, conducted in the ACT in 1992, found that about one third of respondents attended a sporting event once or twice a year (Clough and Traill, 1992). Just over half said they would prefer to attend live sporting events rather than watching them on TV, while another quarter said they would 'sometimes prefer' to attend live events.

Since this level of participation falls below the 50 per cent threshold, no allowance has been made for children's attendance at sporting events in the BSU leisure budgets.

Holidays

According to the AIFS Australian Living Standards Study, about half of the adults surveyed go on a holiday of a week or more 'most' or 'some' years (48 per cent of adults surveyed in Berwick and 50 per cent at Box Hill), while more than a third go at least once a year (35 per cent and 40 per cent, respectively) (McDonald, 1993a; 1993b).

The great majority of parents (over 90 per cent) take their children on holidays with them. When asked how important it was to have a holiday with their children away from home, 88 per cent answered that it was either 'very/extremely' or 'somewhat' important, and less than 13 per cent reported that it was 'not at all important' (McDonald, 1993a, p. 250; 1993b p. 225).

Almost three-quarters of the young people surveyed in Berwick (72 per cent) and even more (85 per cent) in Box Hill, said that they had been on holiday away from home for one week or more in the last 12 months, including going on school camps (McDonald, 1993a; 1993b).

According to research undertaken by the NSW Bureau of Tourism Research, the main reason given by people in New South Wales for taking a trip was pleasure/holiday, this accounting for 39 per cent of total visits (Tourism New South Wales, 1995, p. 7).

After the Sydney region itself, the most popular destination is the Hunter region (Tourism New South Wales, 1995, p. 31) which includes an area running from north of the central coast to Bulahdelah in the north and out past Muswellbrook in the west. The area combines urban and rural areas with beaches, bays and extensive fresh water lakes. The car is the most popular form of transport to the Hunter (accounting for 81 per cent of visits in 1993-94), followed by train and bus/coach (eight per cent) (Tourism New South Wales, 1995, p. 99).

While many families (43 per cent) stay in paid accommodation such as hotels/motels and rented flats and houses when on holidays, the same proportion (43 per cent) stay with friends and relatives in the Hunter, with nights spent in hotels/motels with facilities increasing from 12 per cent in 1992-93 to 17 per cent in 1993-94. Unfortunately, the available data do not indicate the length of visits undertaken by different family types, although the January, April and October school holiday periods are the most popular months to travel in New South Wales.²⁰

Just over half (55 per cent) of the visits to the Hunter region were made by people with incomes below \$20,000, while 15 per cent were made by those with incomes over \$40,000 (Tourism New South Wales, 1995, Table 9). These data thus suggest that households at the low cost standard in Australia also take holidays away from home. The modal length of a trip for long holidays was at least seven days (involving at least five nights overnight accommodation).²¹

Most focus group participants felt that having a holiday of at least one week's duration once a year was a basic right. Having said that, the sole parent participants reported that few of them had had a holiday in the last four years. The majority view was that if people were very constrained by low income, a holiday of one to two weeks every three years was a reasonable compromise.

On the basis of the information presented, all households at the modest but adequate standard have been allocated a holiday away from home (in the Hunter region) for one week each year. In the light of the view of community standards put forward by the focus groups, all

²⁰ A visit is a component of a trip and refers to a stay of one or more nights at any locality en route to the main destination, at the main destination and at any locality along the itinerary. Accordingly one trip may result in several visits (Tourism, New South Wales, 1995, p. 3).

²¹ A trip is a journey. The main destination is the locality where most nights were spent...a trip is defined as a stay of one or more nights, but less than three months away from home (Tourism New South Wales, 1995, p. 3).

households at the low cost standard have been assumed to take a cheaper holiday (again in the Hunter region) once every three years.

The holiday profiles shown in Table 10.6 indicate that all households with children at the modest but adequate standard are assumed to stay in a rented holiday unit located in Forster/Tuncurry for seven days in the Christmas school holiday break. A suitably-sized holiday unit (either one, two or three bedrooms) was selected for the various household types. The units were chosen from several Holiday Accommodation Directories obtained from real estate agents in the area.²²

At the modest but adequate standard, the holiday units chosen were in the mid-price range of available units over the (peak) Christmas holiday period. Considerable savings can, however, be made by taking a similar holiday either in early Spring or late Summer for families with children. For example, the two-bedroom unit priced at \$450 per week over the Christmas period is available in October/November for \$235 per week and in February/March can be rented for \$250.

However, households with school-age children were assumed to have to take this vacation during the school holiday period, although other households are assumed to holiday outside of the peak Christmas period.

For the other household types at the modest but adequate standard, a farm holiday in the Hunter Valley region was chosen for the older couple and the single older woman. This type of holiday is more reasonably priced than beach-side accommodation and the tariffs fluctuate less during the year. The 70-year-old single woman is assumed to stay in guest house style rooms (all with bathroom ensuites) with full board, while the older couple are assumed to stay in self-contained/self-catering accommodation.

This type of holiday in a country setting provides for a number of social activities which are included in the total cost. A seven-day holiday (room only and out of the Christmas holiday period) in a resort at Shoal Bay (in the Hunter region) was allocated for the couple with no children and for the 35-year-old single woman.

In the main, holiday accommodation is quoted on a per person rate, based on a twin-share (or double) room or unit. Information obtained from a variety of sources, including tourist and real estate agents, in relation to costing holiday accommodation shows that twin-share occupancy of a hotel room or unit compared to single rate occupancy costs generally around the same and is more prevalent than single occupancy. This assumption has been applied to both the 35- 70-year-old single women staying in holiday units at the low cost level, both of whom are assumed to holiday with a friend and thus bear only half of the rent costs.²³

All household types with children at the low cost standard are assumed to stay in the most modestly priced unit for their family size in Forster/Tuncurry over the Christmas holiday period. Households with no children are assumed to take advantage of a more reasonable tariff by holidaying in Forster/Tuncurry at a time outside the peak Christmas season.

²² Those households containing a three- or six-year-old girl (household types H₁ H₇ and H₉) are assumed to rent only a one-bedroom unit given the brevity of their stay.

²³ This cost-sharing assumption has not been applied to the older single woman at the modest but adequate standard who takes a farm/country holiday. Her accommodation consists of 'guest house' style facilities, with full board and provision for social activities with other guests and has a similar total cost for either one or two people, even when they share a room.

Table 10.6: Assumed Form and Cost of Holidays by Household Type

Household Type	Length of stay	Mode of Transport	Modest but Adequate			Low Cost		
			Destination	Accommodation	Cost (\$)	Destination	Accommodation	Cost (\$)
H ₁	7 days	Car	Shoal Bay	Hotel	245(a)(b)	Forster	Unit (1 -bedroom)	55(a)(b)
H ₂	7 days	Car	Shoal Bay	Hotel	490(a)	Forster	Unit (1 -bedroom)	110(a)
H ₃	7 days	Car	Forster	Unit (2-bedroom)	450	Forster	Unit (2-bedroom)	295
H ₄	7 days	Car	Forster	Unit (1 -bedroom)	410	Forster	Unit(1 -bedroom)	215
H ₅	7 days	Car	Mudgee area	Farm	400(a)(c)	Forster	Unit(1 -bedroom)	55(a)(b)
H ₆	7 days	Car	Taree area	Farm	480(a)	Forster	Unit(1 -bedroom)	110(a)
H ₇	7 days	Car	Forster	Unit (1 -bedroom)	410	Forster	Unit (1 -bedroom)	215
H ₈	7 days	Car	Forster	Unit (2-bedroom)	450	Forster	Unit (2-bedroom)	295
H ₉	7 days	Car	Forster	Unit (1 -bedroom)	410	Forster	Unit(1 -bedroom)	215
H ₁₀	7 days	Car	Forster	Unit (2-bedroom)	450	Forster	Unit (2-bedroom)	295
H ₁₁	7 days	Car	Forster	Unit (3-bedroom)	590	Forster	Unit (3-bedroom)	500
H ₁₂	7 days	Car	Forster	Unit (2-bedroom)	450	Forster	Unit (2-bedroom)	295

Notes: (a) Not in school holidays

(b) Twin-share basis

(c) Full board

In accordance with suggestion emanating from the first wave of BSU focus groups held in Sydney, an allowance has been made for extra food expenditure (with the appropriate reduction in the food budget for the remaining 51 weeks of the year) to accommodate holiday eating habits.²⁴ Suitable clothing and footwear for holiday destinations are included in the clothing and footwear budget.

10. 5 Summary BSU Leisure Budgets

Table 10.7 sets out the total leisure budgets for each of the 12 basic BSU household types on the assumption that they are private renters, or in the case of the older households (H_5 and H_6) that they own their housing outright, while Table 10.8 provides a breakdown of the leisure budgets by the six major categories of leisure expenditure.

²⁴

This holiday (food) loading does not apply to those holidays which come with full board.

Table 10.7: Summary Leisure Budgets for All BSU Household Types (\$)

Household Type		Annual	Weekly
H1a	S Pri M	1,467.90	28.15
H1b	S Pur M	1,467.90	28.15
H1c	S Pri L	1,089.90	20.90
H2a	C Pur M	2,312.72	44.36
H2b	C Pri M	2,279.50	43.72
H2c	C Pri L	1,436.69	27.55
H3a	C+2 Pur M	3,396.09	65.13
H3b	C+2 Pri M	3,437.06	65.92
H3c	C+2 Pri L	1,986.95	38.11
H4a	S+g6 Pur M	1,884.38	36.14
H4b	S+g6 Pri M	1,880.99	36.08
H4c	S+g6 Pri L	1,237.96	23.74
H4d	S+g6 Pub L	1,255.18	24.07
H5a	AS Own M	2,014.25	38.63
H5b	AS Own L	1,154.90	22.15
H5c	AS Pub L	1,194.22	22.90
H6a	AC Own M	3,333.40	63.93
H6b	AC Own L	2,146.21	41.16
H6c	AC Pub L	2,057.73	39.47
H7a	C(FF)+g6 Pur M	2,770.53	53.14
H7b	C(FF)+g6 Pri M	2,737.31	52.50
H7c	C(UN)+g6 Pri L	1,954.11	37.48
H7d	C(UU)+g6 Pri L	1,942.23	37.25
H7e	C(UU)+g6 Pub L	1,936.83	37.15
H7f	C(FN)+g6 Pur M	3,013.22	57.79
H7g	C(FN)+g6 Pri M	2,924.83	56.10
H7h	C(FN)+g6 Pri L	1,790.57	34.34
H7i	C(FU)+g6 Pri L	1,842.64	35.34
H7j	C(FP)+g6 Pur M	2,777.47	53.27
H7k	C(FP)+g6 Pri M	2,817.35	54.03
H8a	C+b 14 Pur M	3,262.86	62.58
H8b	C+b14 Pri M	3,171.33	60.82
H8c	C+b14 Pri L	1,801.93	34.56
H9a	C+g3 Pur M	2,252.22	43.20
H9b	C+g3 Pri M	2,218.32	42.55
H9c	C+g3 Pri L	1,492.93	28.63
H10a	C+3 Pur M	3,452.55	66.22
H10b	C+3 Pri M	3,420.69	65.61
H10c	C+3 Pri L	1,952.02	37.44
H11a	C+4 Pur M	3,879.76	74.41
H11b	C+4 Pri M	3,845.93	73.76
H11c	C+4 Pri L	2,248.94	43.13
H12a	S+2 Pur M	2,261.80	43.38
H12b	S+2 Pri M	2,258.41	43.31
H12c	S+2 Pri L	1,525.16	29.25
H12d	S+2 Pub L	1,525.16	29.25

Key: See Table 10.1.

Table 10.8: Detailed Leisure Budgets by Standard and Housing Tenure (\$ per week)

Household Type	Modest but Adequate									Total
	Home and social goods(a)	Children's toys/ leisure	Craft	Card- ening	Arts. entertain- ment and outings	Sports activities	Spectator sports	Holidays		
Purchaser/Owners										
H1 S Pur M	10.96	0.00	0.45	0.00	4.93	5.96	0.00	5.85	28.15	
H ₂ C Pur M	13.64	0.00	0.45	0.64	4.94	11.84	1.15	11.70	44.36	
H ₃ C+2 Pur M	25.21	7.23	0.45	0.60	6.24	11.03	1.15	13.23	65.13	
H ₄ S+g6 Pur M	11.50	4.48	0.45	0.07	3.68	5.80	0.00	10.16	36.14	
H ₅ AS Own M	18.28	0.00	0.45	0.98	3.35	7.90	0.00	7.67	38.63	
H ₆ AC Own M	22.30	0.00	0.45	1.66	6.35	21.67	0.00	11.51	63.93	
H _{7a} C(FF)+g6 Pur M	14.38	4.48	0.45	0.64	6.02	14.71	1.15	11.32	53.14	
H _{7f} C(FN)+g6 Pur M	15.88	4.48	0.45	0.80	6.82	16.89	1.15	11.32	57.79	
H _{7j} C(FP)+g6 Pur M	14.78	4.48	0.45	0.60	5.02	15.46	1.15	11.32	53.27	
H ₈ C+b14 Pur M	26.60	2.75	0.45	0.60	6.58	12.37	1.15	12.08	62.58	
H ₉ C+g3 Pur M	13.42	3.48	0.45	0.65	4.66	8.06	1.15	11.32	43.20	
H ₁₀ C+3 Pur M	26.29	8.89	0.45	0.61	5.59	8.85	1.15	14.38	66.22	
H ₁₁ C+4 Pur M	26.81	12.76	0.45	0.57	5.24	9.20	1.15	18.22	74.41	
H ₁₂ S+2 Pur M	12.52	8.35	0.45	0.07	3.76	6.16	0.00	12.08	43.38	
Private Renters										
H1 S Pri M	10.96	0.00	0.45	0.00	4.93	5.96	0.00	5.85	28.15	
H ₂ C Pri M	13.64	0.00	0.45	0.00	4.94	11.84	1.15	11.70	43.72	
H ₃ C+2 Pri M	26.59	7.23	0.45	0.00	6.24	11.03	1.15	13.23	65.92	
H ₄ S+g6 Pri M	11.50	4.48	0.45	0.00	3.68	5.80	0.00	10.16	36.08	
H _{7b} C(FF)+g6 Pri M	14.38	4.48	0.45	0.00	6.02	14.71	1.15	11.32	52.50	
H _{7g} C(FN)+g6 Pri M	15.88	3.58	0.45	0.00	6.82	16.89	1.15	11.32	56.10	
H _{7K} C(FP)+g6 Pri M	14.78	4.48	0.45	0.00	6.39	15.46	1.15	11.32	54.03	
H ₈ C+b14 Pri M	25.45	2.75	0.45	0.00	6.58	12.37	1.15	12.08	60.82	
H ₉ C+g3 Pri M	13.42	3.48	0.45	0.00	4.66	8.06	1.15	11.32	42.55	
H ₁₀ C+3 Pri M	26.29	8.89	0.45	0.00	5.59	8.85	1.15	14.38	65.61	
H ₁₁ C+4 Pri M	26.73	12.76	0.45	0.00	5.24	9.20	1.15	18.22	73.76	
H ₁₂ S+2 Pri M	12.52	8.35	0.45	0.00	3.76	6.16	0.00	12.08	43.31	

Key: See Table 10.1.

Note: (a) Children's toys and leisure goods is a sub-cost of the Home and Social Activity Category.

Table 10.9: Detailed Leisure Budgets by Standard and Housing Tenure (\$ per week)

Household Type	Home and social	Children's toys/ leisure	Craft	Gard- ening	Low Cost			Holidays	Total
					Arts, entertain- ment and outings	Sports activities	Spectator sports		
Owners									
H ₅ AS Own L	11.70	0.00	0.00	1.03	0.79	0.79	0.00	0.74	22.15
H ₆ AC Own L	14.15	0.00	0.00	1.70	2.18	21.67	0.00	1.47	41.16
Private Renters									
H ₁ S Pri L	9.85	0.00	0.00	0.00	4.35	5.96	0.00	0.74	20.90
H ₂ C Pri L	12.48	0.00	0.00	0.00	1.76	11.84	0.00	1.47	27.55
H ₃ C+2 Pri L	14.45	5.37	0.00	0.00	3.83	11.03	0.00	3.42	38.11
H ₄ S+g6 Pri L	10.29	3.58	0.00	0.00	1.93	5.80	0.00	2.14	23.74
H _{7c} C(FF)+g6 Pri L	13.71	3.58	0.00	0.00	2.95	14.71	0.00	2.53	37.48
H _{7d} C(UU)+g6 Pri L	13.38	3.58	0.00	0.00	3.05	14.71	0.00	2.53	37.25
H _{7h} C(FN)+g6PriL	10.97	3.58	0.00	0.00	2.55	14.71	0.00	2.53	34.34
H _{7i} C(FP)+g6 Pri L	12.04	3.58	0.00	0.00	2.48	14.71	0.00	2.53	35.34
H ₈ C+b14 Pri L	13.58	1.79	0.00	0.00	3.78	12.37	0.00	3.04	34.56
H ₉ C+g3 Pri L	13.17	2.78	0.00	0.00	2.10	8.06	0.00	2.53	28.63
H ₁₀ C+3 Pri L	14.60	6.71	0.00	0.00	3.48	8.85	0.00	3.80	37.44
H ₁₁ C+4 Pri L	15.24	9.80	0.00	0.00	3.39	9.20	0.00	5.50	43.13
H ₁₂ S+2 Pri L	11.20	6.68	0.00	0.00	2.17	6.16	0.00	3.04	29.25
Public Renters									
H ₄ S+g6 Pub L	10.62	3.58	0.00	0.00	1.93	5.80	0.00	2.14	24.07
H ₅ AS Pub L	13.48	0.00	0.00	0.00	0.79	7.90	0.00	0.74	22.90
H ₆ AC Pub L	14.15	0.00	0.00	0.00	2.18	21.67	0.00	1.47	39.47
H _{7e} C(UU)+g6 Pub L	13.28	3.58	0.00	0.00	3.05	14.71	0.00	2.53	37.15
H ₁₂ S+2 Pub L	11.20	6.68	0.00	0.00	2.17	6.16	0.00	3.04	29.25

Key: See Table 10.1.

Note: (a) Children's toys and leisure goods is a sub-cost of the Home and Social Activity Category.

APPENDIX 10.A: Correspondence Between 1992 Time Use Survey Activity Classification and the BSU's Six Categories of Leisure Activity

<u>1992 Time Use Category</u>	BSU Leisure Categories:					
	Home and social	Gardening	Arts, entertain- ment and outings	Sporting activity	Spectator sports	Holidays
Gardening						
Civic participation						
Socialising						
Visiting entertainment and cultural venues						
Sports events						
Sport, exercise and outdoor activities						
Games, cards, etc.						
Hobbies, arts and crafts						
Holiday travel, including driving for pleasure						
Reading						
TV and videos						
Listening to radio, CDs, tape, records						
Relaxing, thinking and resting						
Enjoying memorabilia						
Talking (including phone)						
Writing/reading own correspondence						

APPENDIX 10. B: Free Time Availability Weighting for Adults in Particular Household Types, by Activity Category

Household Type	Modest but Adequate												
	Gardening		Social life and entertainment		Active leisure		Passive leisure		Other leisure		Total		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
H1		0.04		1.23		0.71		0.72		0.72		0.83	
H2	0.98	0.35	0.80	0.96	0.83	0.58	0.87	0.67	0.64	0.65	0.85	0.72	
H3	0.92	.29	0.65	0.81	0.64	0.39	0.76	0.56	1.38	1.39	0.73	0.61	
H4		0.04	-	1.16	-	0.57	-	0.66	-	1.13	-	0.77	
H5		1.51	-	1.08	-	0.94	-	1.49	,	-	1.29	-	1.30
H6	2.55	2.06	0.71	0.84	1.45	1.13	1.60	1.47	1.41	1.43	1.38	1.28	
H _{7a,} ^b	0.98	0.35	0.73	0.90	1.19	0.44	0.81	0.61	1.04	1.46	0.79	0.67	
H _{7f}	1.23	0.84	0.85	1.04	0.87	1.02	0.98	1.04	1.00	1.31	0.94	1.04	
H _{7g}	-	-	-	-	-	-	-	-	-	-	-	-	
H _{7j, k}	0.93	0.73	0.77	1.01	0.92	0.80	0.84	0.79	0.80	0.86	0.84	0.86	
H8	0.93	0.30	0.71	0.88	0.78	0.53	0.79	0.62	0.98	0.99	0.78	0.67	
H9	1.00	0.37	0.71	0.88	0.59	0.37	0.78	0.58	0.66	0.67	0.74	0.62	
H10	0.94	0.31	0.57	0.73	0.43	*0.18	0.66	0.46	1.40	1.42	0.63	0.51	
H11	0.88	0.25	0.48	0.65	0.38	*0.12	0.61	0.41	1.74	1.75	0.57	0.44	
H ₁₂	0.00	-	1.08	-	0.52	-	0.61	-	1.15	-	0.71		
Average weekly hours (unweighted), all Australians aged 15 and over	1.88		11.53		5.90		22.10		0.59		42.00		

Note: * Weighting used for adult females is adjusted to reflect Activity-specific weights to meet health standards (see Table 10.3).

APPENDIX 10.B: Free Time Availability Weighting for Adults in Particular Household Types, by Activity Category (Continued)

Household Type	Low Cost											
	Gardening		Social life and entertainment		Active leisure		Passive leisure		Other leisure		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
H1		0.72		1.44		1.23		1.17		1.15		1.16
H ₂	1.58	0.95	0.95	1.12	0.83	1.25	1.40	1.20	1.47	1.48	1.21	1.08
H ₃	1.85	0.78	0.97	0.90	0.64	1.12	1.37	1.07	1.76	2.06	1.19	0.93
H ₄	-	0.60	-	1.30	-	1.15	-	1.09	-	1.38	-	1.06
H ₅	-	1.58	-	1.08	-	0.94	-	1.49	-	1.29	-	1.30
H ₆	2.61	2.12	0.71	0.84	1.45	1.13	1.60	1.47	1.41	1.43	1.38	1.28
H _{7c}	1.90	0.84	1.05	0.98	1.19	1.17	1.43	1.13	1.42	1.72	1.24	0.99
H _{7d, e}	1.58	0.95	0.89	1.05	1.37	1.11	1.34	1.14	1.87	1.88	1.24	1.11
H _{7h}	1.30	0.91	0.85	1.04	0.87	1.02	0.98	1.04	1.00	1.31	0.94	1.04
H _{7i}	0.97	1.02	0.68	1.10	0.85	0.96	0.89	1.06	1.45	1.47	0.84	1.06
H ₈	1.86	0.79	1.04	0.97	0.78	1.26	1.39	1.13	1.36	1.65	1.23	0.99
H ₉	1.92	0.86	1.04	0.97	0.59	1.10	1.39	1.09	1.04	1.34	1.20	0.95
H ₁₀	1.86	0.80	0.89	0.82	0.43	0.91	1.28	0.98	1.79	2.08	1.09	0.83
H ₁₁	1.81	0.74	0.81	0.74	0.38	0.86	1.23	0.93	2.12	2.42	1.03	0.77
H ₁₂	-	0.55	-	1.22	-	1.10	-	1.04	-	1.72	-	1.00
Average weekly hours (unweighted), all Australians aged 15 and over	1.88		11.53		5.90		22.10		0.59		42.00	

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CHAPTER 11: THE PERSONAL CARE BUDGET*

11.1 Introduction

The personal care budget includes items that people commonly purchase for their own grooming. Although many of the items included in the personal care budget are not *essential* for survival they are products which are used for personal hygiene purposes as well as for maintaining personal appearance. These factors are important for prevention of disease and can also be important in relation to employment opportunities and social interaction and participation.

There are obvious links between the personal care and health budgets and the dividing line between them can become blurred. Yu (1993) notes, in the UK context that; 'personal hygiene is essential in maintaining healthy living' (Yu, 1993, pp. 116-17) and in the light of the fact that the BSU health budget reflects the assumption that individuals are in 'an average state of good health' (see Chapter 8) it follows that allowance should also be made for the cost of achieving appropriate levels of personal care.

This is also broadly consistent with the conceptualisation of good health in relation to diet which underpins the BSU food budget (see Chapter 5).

As with other component budgets, the personal care budget aims to reflect the norms that currently prevail in Australian society in regard to personal hygiene standards and grooming. Where information is available on recommended standards for personal care, these have informed the adoption of a normative approach. Although such normative data regarding personal care for people living in Australia are limited, there is even less behavioural data available in regard to the personal care habits of Australians. The personal care budget standards have therefore been based mainly on the available normative information.

The justification for inclusion of some of the personal care items has been based on recommendations developed overtime by the Commonwealth Department of Health and Family Services (and its predecessors). Where no such recommended standards exist, advice has been sought from people working in the personal grooming industry, including beauty therapists and hairdressers. Information provided by market research companies and the available literature on personal care products have also been beneficial in regard to the selection of personal care items for inclusion in the budgets.

As with other budget components, information produced by the Family Budget Unit in the United Kingdom was taken into consideration as the starting point for development of the Australian personal care budget, particularly in regard to the lifetimes assigned to products (Bradshaw, 1993).

Another very useful source of information has been the feedback received from focus group participants. An early draft of the personal care budget was presented for comment to the focus groups in April 1997 and the comments received concerning the adequacy and appropriateness of the budgets have been taken into consideration and helped to substantiate some of the decisions that have been made in developing the revised budgets.

* This budget was prepared by Colette Murray with the assistance of Sally Doran. Additional advice and assistance was provided by the staff at Angus and Coote (City Store) and at Top Campus Pharmacy at the University of New South Wales. Advice and assistance provided by the staff at Synergy hair salon and beautician and make-up artist Jenny Rowles is also acknowledged.

11.2 Individual Items

General

Overall, the BSU personal care budgets aim to reflect current personal care practices in Australia. Information obtained from the general community as well as those who are dealing extensively with the public in the area of personal care has been very useful in the formation of the budgets.

The personal hygiene component of the personal care budget covers the basic necessities that help to keep the body clean. The basis for deciding what should be included in the personal care budget in regard to personal hygiene has been the information pamphlet released by the NSW Department of Health which contains recommendations on personal hygiene for use by the general public (NSW Department of Health, 1985).

The pamphlet recommends that regular washing with soap and water should be part of everyone's daily life, particularly before eating food, after going to the toilet, after handling garbage, pets or chemicals, after going out, gardening, handling money or newspapers. It also recommends that finger nails be kept short and scrubbed with a nail brush, as nails can harbour dirt and bacteria. The BSU personal care budget therefore includes allowance for the cost of purchasing soap, a nail brush, and nail scissors, while a set of nail files has also been allocated to the adult females.

The NSW Department of Health also recommends that everyone should have their own toothbrush and that teeth should be brushed after meals. Dental flossing is also suggested as an important aspect of dental hygiene. The budgets thus also include a tooth brush for each individual, as well as an adequate supply of dental floss and toothpaste.

An article published in *Choice* magazine in 1996 recommended purchasing a toothbrush with bristles that are soft and rounded, that brushing of the teeth twice a day is adequate and that a pea size amount of toothpaste is all that is needed. Manufacturers recommend that toothbrushes should be replaced every three months, although *Choice* argued that toothbrushes only need to be replaced once the bristles have become shaggy, but that ideally teeth should also be flossed once a day (Australian Consumers' Association, ACA, 1996a). The Australian Dental Association also recommend daily flossing of teeth, and suggests that parents teach their children at an early age to floss their teeth.

Every person included in the BSU household types has therefore been allocated dental floss apart from the three-year-old girl and the 70-year-old male and female.¹ To protect teeth during sport, the 10- and 14-year-old boys have been allocated a mouthguard as the BSU leisure budget (see Chapter 10) assumes that they play soccer.

A personal deodorant is also suggested for use under arms to stop body odour being offensive to others (NSW Department of Health, 1985), and consequently all of the adults and the 14-year-old boy have been allocated a supply of deodorant. An allowance for the purchase of tissues and cotton wool balls has also been included in both the modest but adequate and low cost budgets.

¹

Dental floss is unnecessary for the denture care needs of the 70-year-olds because they have been allocated a full set of dentures in the BSU health budget (see Chapter 8).

Denture Care

As indicated in the discussion of the BSU health budget in Chapter 8, a full set of dentures has been allocated to each of the 70-year-olds in the health budget. According to denture care sites on the Internet, dentures can be kept in clean cold water overnight and washed in soapy water or with an ordinary toothpaste.² Denture cleaning tablets have therefore been allocated for use once a week at both the modest but adequate and low cost standards.

On other days, dentures are assumed to be soaked in water overnight. The modest but adequate budgets also include an allowance for a denture brush instead of a toothbrush, although this has not been provided for in the low cost budgets, on the assumption that an ordinary toothbrush will suffice.

Women's Personal Care

Specific personal care items included for the 35-year-old woman are tampons and sanitary napkins for use during menstruation. Johnson & Johnson Consumer Service Centre recommends that tampons be changed at least four times per day and that a tampon should not be left in for more than six hours. The budget for the 35-year-old female thus includes an allowance for five tampons per day. Considering that most women menstruate for five days (Guyton, 1985) 25 tampons per cycle have been allocated.

Due to the risk of toxic shock syndrome, it has been recommended that tampons are not worn at night (ACA, 1995a), or that one varies 'tampon use with pads and napkins from time-to-time' (TSS Information Service Pamphlet, nd; see also Topaz, 1995). Five sanitary napkins per cycle have therefore been allocated to the budget of the 35-year-old female.

Personal Appearance

Information on what products and services should be included as a means for improving personal appearances is severely limited. There are also obvious problems in determining what to include in this area that is a legitimate reflection of *need* as opposed to *taste*. There is also a strong overlap between deciding which items to include in the personal care and clothing and footwear budgets which further adds to the complexity of developing the personal care budget.

The information for this component of the budget relied mainly upon material gathered from the first wave of BSU focus group discussions, from contacting hairdressers and beauticians, supplemented by the experience and observation of the researchers themselves. Where information was available, the budgets rely on Department of Health recommendations, product information provided by the Australian Consumers' Association and details provided by manufacturers of personal care items.

Hair Care

It is recommended that hair be washed regularly, preferably with shampoo, at least once a week. Brushing and combing hair is also recommended to help keep head lice under control

²

'How to take care of your Dentures' <http://enmpc.org.hk/joylee/english/dentcar.htm>, 28/8/97. The 'AgePage: Taking Care of your teeth and mouth'¹ (<http://www.medacces.com/seniors/agepg/ap37.htm>, 28/8/97) recommends daily brushing with 'a denture care product' and placing dentures in 'water or a denture cleansing liquid while you sleep'.

(NSW Department of Health, 1985). The budgets therefore include an allowance for the cost of purchasing shampoo. For reasons of hygiene, each individual has been allocated their own hair brush and a hair comb.

Haynes (1994) recommends the use of conditioner on long hair or hair that has been exposed to bleaches, chlorine and salt water and this too is included. Information generated by the BSU focus group discussions confirmed this by indicating that most people considered both shampoo and conditioners as essential for their hair.

Hairdressers who were consulted by BSU researchers explained that the amount of shampoo and conditioner required to wash hair efficiently is only small (as much as a 10 cent coin in the palm of the hand) and only a single wash is necessary. They also said that it was not necessary to wash hair every day. On the basis of this advice, the individuals in the budget standard households have been allocated enough shampoo and conditioner to wash and condition their hair twice a week.

The focus group participants reported that a haircut every six to eight weeks was essential, at both the modest but adequate and low cost standards (Chapter 13). However, group participants felt that parents normally cut their children's hair in order to save money. The cost of a haircut from a barber or hairdresser was said to range from \$8 to \$60 for women and from \$5 to \$20 for men.

A regular haircut has been included in the budgets for the 14-year-old boy and for each of the adults, at both standards. It is assumed that the 10-year-old boy and the six- and three- year-old girls have their haircuts at home. Home haircut kits have been provided for this purpose to each of the appropriate households, at both standards.

Hairdressers estimate that hair grows at a rate of approximately one inch per month. A haircut once every two months has therefore been allocated as part of the low cost budgets, while the modest but adequate budgets include allowance for a haircut every six weeks. The modest but adequate budget also includes the cost of a haircut and colour rinse for the 35- and 70-year-old females, as hairdressers report that most women have a cut and colour regardless of their age. The low cost budget, does not, however, include a colour rinse—even for the adult females.

An allowance for hair bands has been included in the budget for the six-year-old girl, as many schools require girls with hair below shoulder length to tie their hair up. The budget for the three-year-old girl includes hair clips. The budget for the 35-year-old female also has hair bands included because it is normally acceptable that most women with long hair prefer it to be back away from their eyes and face, particularly when exercising or playing sport or engaging in other strenuous activities.

The modest but adequate budget incorporates an allowance for extra hair bands that are more decorative and are used as fashion items. Each household has one hair dryer included, which has been allocated a lifetime of five years.

Hair Removal

On the basis that the market share of wet shave/dry shave is roughly 80/20, with the male/female share of the wet shave market being approximately 85/15, all adult males have been allocated a wet shave razor, razor blades and shaving cream.³ Although not all men feel

³ These assumptions are based on information supplied to the BSU researchers by Warner-Lambert Company.

that it is necessary to shave, a razor has been included on the assumption that most men do. A lifetime of six shaves per blade has been assumed.

Choice magazine has recently observed that fashion dictates that women should have smooth, hairless underarms, legs and 'bikini lines' (ACA, 1995b, p. 17). The magazine also reports that shaving is the most popular method for removing unwanted hair (other possible methods include waxing, creams, lotions and electrolysis) and disposable razors have therefore been included in the personal care budgets for adult females.

Make-up

Make-up is a classic case of an item which, while it may have little or no justification for inclusion in the budgets on health or hygiene grounds, nonetheless has a very strong rationale in terms of psychological criteria, as well as being regarded by many women as essential for their complete participation and social functioning in modern society.

Chapkis (1986) poses the questions that underlie the use of make-up in the following way:

'Why do women buy costly beauty products that demonstrably have little purpose than participation in a fantasy? The purchase of a new cosmetic, the decision to change the colour or style of one's hair, the start of a new diet are the female equivalent of buying a lottery ticket. Maybe you will be the one whose life is transformed. Despite daily experience to the contrary, we continue to hope that maybe this time, maybe this product, will make a difference in our lives. And if it doesn't, it is still a relatively inexpensive way to visit the mysterious orient of Shiseido, the elite circle of Chanel, the smouldering, sensuous world of Dior. Everything that is so difficult to attain in real life is promised for the price of a new perfume or eye shadow.' (Chapkis, 1986, p. 93).

Although make-up is not considered essential by all women, the BSU focus group discussions revealed that many women felt that it was a necessary component of their own personal care budgets.

Furthermore, consultations with women who work in service industries such as hairdressing, and sales assistants in department stores, also revealed that employers encourage women to wear make-up at work. The employees that were spoken to within service-orientated industries argued that it was essential for women to wear make-up while at work or when attending job interviews.

The shelf-life of most make-up products is three years, according to the Research Development Office at Clinique, although mascara has a shorter shelf-life of only around 12 months. In practice, how often make-up needs to be replaced depends on how much it is used, and how often.

The Family Budget Unit in York, referring to behavioural data from Euromonitor Market Research 1988, noted that cosmetics were 'more commonly used by working women than by non-working women...' (Yu, 1992, p. 19). For this reason, make-up for the females in employment or looking for work has been given shorter lifetimes than the make-up allocated to those women who are not in the labour force.

A basic make-up kit, consisting of foundation, lipstick and mascara has been included in the low cost budgets, while the modest but adequate budgets also include some extra items, such as blush, eye shadow, nail polish and nail polish remover. A cosmetic purse and cosmetic bag have been included in both the low cost and modest but adequate budgets. The 70-year-old female has not been allocated any mascara, following advice from make-up artists.

Facial cleansers have been included in the budgets for females and for the teenage boy. The adult females have been allocated a cleanser because of the decision to include make-up in the budgets. Beauticians report that it is important when wearing make-up to cleanse your face in the evening to remove any trace of make-up.

Haynes (1994) reports that acne affects 50 per cent to 80 per cent of teenagers. A facial wash can be of assistance in reducing excess sebum which, if produced by the body in excess, causes the pores of the skin to become blocked resulting in the development of blackheads and pimples. In the adolescent years, the hormone levels in the blood increase, stimulating the sebaceous glands which in turn increases the amount of sebum produced. For these reasons, a medicated face wash and pimple cream have been included in the budget for the 14-year-old boy.

Moisturisers help to keep the top layer of skin flexible and soft. Dry skin can feel rough, may chap and even be itchy, especially in the case of older skin (Haynes, 1994). A moisturising cream that can be used for the face and body has therefore been assigned to each adult. Enough moisturising cream for daily use on hands and face has been allocated for males, and an extra amount is assigned to women to allow them to moisturise their legs after shaving.

Perfumes

Both perfume and aftershave sell in considerable volume in large department stores, chemists and supermarkets and in the light of the fact that many of the male focus group participants reported that they wore aftershave, it was decided to include an allowance for aftershave for men and perfume for women in the budgets at both modest but adequate and low cost standards.

The cost of cologne can vary enormously, with bottles of perfume costing upwards of \$100. The perfume and aftershave items included in the BSU personal care budgets were priced at Target and Kmart and were relatively cheap in comparison to some of the fragrances sold in the larger department stores such as David Jones and Grace Bros.

An estimated lifetime of 18 months was designated to the perfume and cologne in the low cost budget, although for the modest but adequate budget, fragrance was assumed to be worn more frequently and the lifetime of these products was, therefore, reduced to one bottle per year.

Jewellery

Information on how much jewellery people wear appears to be scarce. The BSU focus group discussions revealed that most people did not consider jewellery to be essential items, apart from a watch. Some of the female participants said that they often bought inexpensive costume jewellery and earrings. Decisions concerning what to include in the budgets was based largely on information gathered from the focus groups.

Both budget standards include a watch, watch band and watch battery for each person 10 years and over. Earrings were allocated according to employment status and budget level. The 35-

year-old unemployed woman in the low cost budget received two pairs of earrings per year; while the 35-year-old woman who is not in the labour force was assigned one pair per year.

At the modest but adequate level, the 35-year-old female in full-time employment was allocated two pairs every three years; for those in part-time work or unemployed, the allocation was two pairs every four years; and for those not in the labour force, an allocation of two pairs every five years was made.

The low cost budget for the 70-year-old female includes an allowance for beads and a brooch. The modest but adequate budget includes some additional jewellery (a necklace and a bracelet) for both the 35-year-old and the 70-year-old females.

The items of jewellery included in the low cost budget were priced at the lower end of the jewellery market, in which a range of costume jewellery is available. The type of jewellery selected was estimated to have a maximum lifetime of one year, and was chosen from among the most up-to-date in regard to fashion accessories. However, within a year such jewellery may look out-dated and possibly be discoloured, as the items are not made of silver or gold, so a lifetime of one year (or less) was selected.

The modest but adequate jewellery budget was priced at Angus & Coote, as this is a well established jewellery store with a number of locations throughout Sydney. The jewellery selected was considered to be better quality than the jewellery allocated in the low cost budgets and because of this, the necklace and bracelet included in the modest but adequate budget was given a lifetime of four years, as opposed to one year for the brooch and beads in the low cost budget.

Similarly, since the earrings included at the modest but adequate level were considered to be of better quality than those allocated to low cost budgets, their lifetimes were also assumed to be longer. As with the low cost budgets, earring lifetimes are also adapted to the assumed employment status of each woman.

Sun Protection

The Cancer Council recommends that people should wear SPF15+ sun protection on a daily basis. The Royal Australian College of Ophthalmologists has produced a policy statement regarding the importance of sun protection for the eyes. The document reports that sunglasses and a brimmed hat are appropriate forms of eye protection against ultraviolet light (Cains, 1992).

The Department of Human Services and Health (DHSH) also recommends that sunglasses should be worn when outdoors, particularly during Summer, around noon each day, on the beach or boating and when skiing at high altitudes (DHSH, 1995). It is also recommended that good quality sunglasses which provide the eye with substantial protection against solar radiation should be worn by both adults and children.

Sunglasses sold at the Cancer Council meet the Australian Standard AS 1067 and are designed to fit the face well. A pair of these sunglasses has therefore been included in the budgets for each individual. SPF15+ sunscreen cream has also been priced at the Cancer Council, as these sunscreens are broad spectrum and water resistant and can be purchased in a variety of sizes.⁴

⁴

The sizes actually allocated depend upon the age of children and the overall size of the household.

Insect Repellent

Mosquitoes can be a risk to health, because they carry diseases such as Ross River Fever, Malaria, Dengue Fever and Yellow Fever. Mosquitoes are most prevalent in Queensland, the Northern Territory and the northern areas of NSW and Western Australia. Those who live in the southern States generally need only to be concerned about mosquito bites in the summer months (ACA, 1995c).

A convenient form of protection against mosquito bites is a personal insect repellent. ACA has tested the efficiency of 25 products and produced a list of 'best buys', which includes Aerogard. In light of this, each household has been allocated one can of Aerogard per year.

11.3 Household Items

Many of the items in the personal care budget have been allocated to individuals rather than households, on the assumption that these items are purchased for personal use. Items such as toothpaste, shampoo, conditioner, cotton balls, tissues, soap, talcum powder, sunscreen and insect repellent were, however, considered to be items that could be shared by all of the members of a household.

The amount of each of these items allocated to each household has been determined by the number of persons in the household and each person's assumed usage rate. The toothpaste, for example, is allocated on the assumption that each person will use six tubes per year. It is however, unnecessary for every individual to have a tube of toothpaste at a given point in time, so that the number of individuals in a household impacts upon the frequency at which these items have to be purchased. The only exception to this assumption for consumable household items is the insect repellent, which has been allocated a lifetime of one can per year regardless of household size.

Four non-consumable items have been allocated to households on the assumption that they can be shared: the hair dryer, the nail brush, the nail scissors, and the hair cutting kit (which has only been allocated to households containing a three-year-old, six-year-old or 10-year-old child). Lifetimes of these items are not assumed to be affected by household size and all four items have thus been assigned a lifetime of five years at both the low cost and modest but adequate standards.

The four-pack of men's hair combs has been allocated at the household level because it is assumed that bulk purchase will be cheaper, even though each of the combs will not necessarily be shared. These combs are allocated to all households comprising a male (adult or child), with each male receiving one comb from the pack every two years.

11.4 Brands and Lifetimes

Brands

Some of the products selected for inclusion in the personal care budgets are the leading brand items. However, where possible the low cost budgets include a number of generic brands. The relevant information on brands was obtained from AC Nielsen, who identified the leading brand and in some instances, the leading generic brand for a number of personal care items that are purchased at the supermarket.

The brands of many of the cosmetics, body creams and cleansers have been selected on the basis of an article published in a recent issue of *Cleo* magazine (1997). The article provides details of the most used and most popular brands of make-up and skin care as reported by make-up artists, hairdressers, beauticians and *Cleo* readers. A number of other personal care items were selected by looking at the market leaders identified by AC Nielsen in their 1996 review of pharmacy trends.

The BSU focus group discussions revealed that most people purchase their make-up and skin care products from the supermarket. It was therefore decided, where possible, to price most items at the supermarket.⁵ Personal care items that were not priced at the supermarket, were priced at a chemist or at Kmart.

In the (few) cases where items were 'marked down' at the time of pricing, the marked down price was used. This approach was considered realistic in light of the fact that many of the personal care items will at some time be 'on special', and these advantages will be available to the shopper. This approach is also consistent with the approach adopted in developing the BSU food budget (see Chapter 5).⁶

Lifetimes

Lifetimes were estimated for each of the separate items included in the personal care budget, after taking into account the age of each member of the household as well as the number of persons in the household. As in the development of other component budgets, the assumed lifetimes were based on the estimated lifetimes produced for the UK personal care budget developed by the Family Budget unit in York (Yu, 1992), modified where appropriate to Australian circumstances and conditions.

However, as can be seen from the detailed comparisons provided in Appendix 11.B, the lifetimes for most of the items included in the Australian budgets are similar to those estimated in the UK personal care budget.

The lifetimes of some items have been estimated by measuring the amount of a particular product that would be needed, given the assumed usage rate. The amount of shampoo per wash, for example, was estimated and measured, and the number of washes obtainable from a bottle of shampoo was then calculated. The lifetimes were shown to the focus groups for their opinion and advice and were then modified where appropriate in light of their suggestions.

11.5 Summary Personal Care Budgets

Table 11.1 summarises the personal care budgets for each individual according to their gender, age and labour force status. They range from less than \$1 a week for children to just over \$6 a week for female adults at the low cost standard, with the corresponding range being from less than \$1 to over \$21 at the modest but adequate standard.

⁵ Wherever possible, following the approach used in developing the food budget (Chapter 5) the 'generic brand' item was priced for inclusion in the low cost budgets and the 'leading brand'¹ for inclusion in the modest but adequate budgets. Where there was no generic brand, the low cost budgets include one of the least expensive items. In some instances, the generic brand and the leading brand were the same.

⁶ Items costed at sale prices appear in brackets in the complete list of personal care items and prices provided in Appendix 11.A.

Table 11.1: Weekly Personal Care Costs for Individuals at the Low Cost and Modest but Adequate Standards(a)

Individual(b)	Low Cost (\$)	Modest but Adequate (\$)
Female — 35 years: FT	•	21.02
Female — 35 years: PT	-	18.50
Female — 35 years: Un	6.07	18.50
Female — 35 years: NILF	5.71	17.29
Male-^0 years: FT	4.69	8.49
Male — 40 years: Un	4.69	-
Girl — 3 years	0.47	0.53
Girl — 6 years	0.47	0.73
Boy — 10 years	0.73	0.96
Boy — 14 years	2.13	3.64
Female — 70 years: Rtd	4.68	14.65
Male — 70 years: Rtd	4.31	8.41

- Notes:** (a) These individual costs exclude shared household items like soap, sunscreen, nail scissors, hair dryers and tissues which are allocated to the household as a whole, not to particular individuals.
- (b) FT = employed full-time; PT = employed part-time; Un = unemployed; NILF = not in the labour force; Rtd = retired;

The personal care budget for the 35-year-old female (regardless of her employment status) is higher than the personal care budget of the 40-year-old male at both budget standards. The cost of make-up, jewellery, hair care and personal hygiene contributes to this, although this is moderated somewhat by the high cost of shaving for the male relative to his other costs (in the low cost budget, shaving represents around 50 per cent of the male's individual yearly expenses; at the modest but adequate level shaving represents about 37 per cent of the male's individual total personal care costs).

The personal care budgets of the younger children are very small, which explains why, at a *given* standard, the personal care budgets vary only slightly as household size increases. This is mainly due to the low level of need for personal care items for younger children. It implies that there are substantial economies of scale in the personal care budget, despite the fact that there are only a few items which the household can share, such as a hair dryer, nail scissors and a nailbrush.

As children age, however, their individual personal care needs increase. The 10-year-old boy has a watch, watch band and battery, and he is also assumed to need a mouthguard for his sport. Into puberty, there is a considerable increase in the cost of personal care items. The 14-year-old boy now needs medicated face cleanser, pimple cream and deodorant, and has his hair cut professionally. These additional items represent 63 per cent (low cost) or 66 per cent (modest but adequate) of the 14-year-old's total personal care budget (not including the household items he uses).

The costs shown in Table 11.1 indicate that personal care costs tend to decline with age for both males and females. Female cost reductions are the result of the cessation of menstruation, the change in employment status for women who worked or were unemployed before

retirement and changes in dental hygiene care costs for those with dentures. Additionally at the low cost level, the 70-year-old female has the added advantage of a 10 per cent age pensioner discount on hairdressing costs.

The reductions in personal care costs for males as they age are less significant, particularly at the modest but adequate standard, where the only differences are in dental hygiene costs. At the low cost standard, the 70-year-old male also enjoys an age pensioner discount for his haircut.

The cost of employment or looking for work does not contribute greatly to the cost of the personal care budgets. Comparison of the corresponding budgets for households containing adults with different labour force status reveals that there are minor differences between the budgets of those who are not in the labour force and those who are employed or looking for work.

The budgets are only affected by the allocation of additional make-up and shorter lifetimes on some jewellery items to those females who are working or looking for work, which implies that the weekly saving in personal care costs for those who are not in the labour force (relative to those who are) is minimal.⁷

Table 11.2 presents the personal care budgets for each of the 12 basic BSU household types, at the low cost and modest but adequate standards. These have been derived by summing the individual budgets shown in Table 11.1, then adding shared household items such as soap, shampoo, hair dryer, cotton wool balls, etc., where appropriate. There are obvious differences between the two separate budget standards reflecting the different assumptions that have been used to develop them.

Allocating cheaper alternative products when costing the low cost budget substantially lowers its overall cost relative to that applying at the modest but adequate standard. In general, the cost of the low cost personal care budget is between 30 per cent and 42 per cent of the cost of the modest but adequate budget, with the percentage increasing with household size.

The summary personal care budgets in Table 11.2 reveal that although personal care costs do not vary much between households with the same number of non-retired adult members, they do vary considerably with the overall living standard for which they are designed. This finding comes as no surprise. Most of the items included in the personal care budgets reflect the needs of adults to maintain the standards of decency and cleanliness that are widely accepted as appropriate in Australia today.

The low cost budgets show that with frugal choice of items, brands and shopping outlets, those standards can be met at costs that are generally between \$5.50 (for the retired female) and \$18 (for the family with four children) a week. At the modest but adequate standard, such frugality is replaced with greater discretionary choice of the items that not only meet basic personal care needs but do so in a way that reflect the tastes and preferences of Australian consumers.

⁷ There has been no differentiation of the personal care budgets according to the items included, the assumed lifetimes or labour force status, although it is a relatively straightforward exercise to make such an adjustment if required.

⁸ Thus, for example, the haircutting kit has only been allocated to households containing three-year-old, six-year-old or 10-year-old children.

Table 11.2: Weekly Low Cost and Modest but Adequate Personal Care Budgets

Household type	Employment status	Low Cost	Employment Status	Modest but Adequate
H1: Female 35	Un	\$6.91	FT	\$22.45
H ₂ : Male 40, female 35	Un Un	\$12.18	FT FT	\$32.04
H ₃ : Male 40, female 35, girl 6, boy 14	Male Un Female NILF	\$15.70	FT FT	\$38.76
H4: Female 35, girl 6	NILF	\$7.65	FT	\$24.36
H ₅ : Female 70	Rtd	\$5.52	Rtd Rtd	\$16.09
H6: Male 70, female 70	Rtd	\$10.41	Rtd Rtd	\$25.59
H ₇ : Male 40, female 35, girl 6	Male Un Female NILF	\$12.92	FT FT	\$33.95
H ₇₍₁₎ : Male 40, female 35, girl 6	Un Un	\$13.28	-	-
H ₇₍₂₎ : Male 40, female 35, girl 6	Male FT Female NILF	\$12.92	Male FT Female NILF	\$30.22
H ₇₍₃₎ : Male 40, female 35, girl 6	Male FT Female Un	\$13.28	-	-
H ₇₍₄₎ : Male 40, female 35, girl 6	-	-	Male FT Female PT	\$31.43
H ₈ : Male 40, female 35, boy 14	Male Un Female NILF	\$14.59	FT FT	\$36.85
H ₉ : Male 40, female 35, girl 3	Male Un female NILF	\$12.94	FT FT	\$33.73
H10: Male 40, female 35, girls 3 & 6 and boy 10	Male Un Female NILF	\$16.63	FT FT	\$40.25
H11: Male 40, Female 35, girls 3 & 6 and boys 10 & 14.	Male Un Female NILF	\$17.94	FT FT	\$42.31
H12: Female 35, girl 6, boy 10	NILF	\$8.97	FT	\$26.42

Key: Un = unemployed; NILF = not in the labour force; FT = employed full-time; PT = employed part-time; Rtd = retired.

With virtually nothing other than very general normative standards to guide this component of the research, its reliance on behavioural data was almost certain to produce personal care budgets that—probably more so than all the other budget components—are much harder to tie down accurately to reflecting needs as conventionally understood. These remarks serve to caution against drawing unwarranted conclusions from the summary budgets presented in Tables 11.1 and 11.2.

APPENDIX 11. A: Personal Care Budget: Brand Names and Prices

Low Cost Budgets

Product/Service	Brand and Amount	Source	Price
Personal hygiene			
Soap	Savings, pack of 5 @ 100g	Coles	\$2.05
Nail brush	Oats Merryware, autoclave, plastic	Coles	\$2.22
Deodorant/antiperspirant	Savings, spray, 175g	Coles	\$1.86
Talcum powder	Savings baby powder, 600g	Coles	\$1.47
Toothpaste	Farmland 120G	Coles	\$1.50
	Junior	Coles	\$1.85
Toothbrush	Farmland, adult	Coles	\$1.85
Mouthguard	E-X Guard Multi-spot double pack (2) mouthguard system	Sportsco	\$10.00
Denture cleansing tablets	Savings Denture cleansing tablets 30	Coles	\$2.24
Moisturising cream	Starlet Vitamin E creme moisturiser	Coles	\$4.25
Facial cleanser	Ponds Foam Cl/tn 100ml (adult females)	Coles	\$6.61
Pimple cream	Clean skin antiseptic 225ml (14-year-old)	Coles	\$4.96
	Clean Skin anti-acne mild antiseptic cream 25g	Coles	\$4.15
Nail scissors	Starlet, curved scissors	Coles	\$4.10
Nail file/emery board	MOTIV 20 emery boards, value pack	Coles	\$1.15
Cotton balls	Savings (150)	Coles	\$1.10
Tissues	Savings (200)	Coles	(\$1.18)(a) \$1.25
Dental floss	Hydent waxed, 50m	Coles	\$1.97
Women's personal care			
Tampons	Savings (20) Homebrand tampons. regular	Coles	\$2.49
Sanitary napkins	Savings (20) No frills adhesive, regular	Coles	\$1.88
Personal appearance			
Haircut	Men S9.00 Pensioner \$6.00 Women S 18.00 (no shampoo) Women (Aged) Pensioner \$ 16.80 (=SI8.00 less 10 percent Mon. Tue. Wed) Child \$6.00(1 4-year-old)	Hurstville	
Home haircut kit (10-, 6- and 3-year-old)	Remington cut'n'Style HC01V haircut kit	Kmart	\$49.95
Shampoo	Fundamentals, family No Frills 1 litre	Coles	\$3.99
Conditioner	3-year-old—Cedel baby shampoo, 250ml Fundamentals, family Home Brand Normal Conditioner 1 Litre	Coles	\$3.10 \$3.99
Hair clips / scrunchies	3-year-old—Cedel baby shampoo, 250 ml 3-year old—clips 3-Pin, set of 4. Addis, Kids Bits 6-year-old—bands. Cameo 6 pack 35-year-old—bands. Cameo 6 pack	Kmart and Coles	\$2.65 \$1.69 \$1.69
Hair comb	males — Cameo family pack, 4 combs adult female — Cameo Comb Shell detangler, 1 pack child female—Cameo hair comb pocket purse	Coles	\$2.20 \$2.15 \$1.39
Hair brush	Cameo brush	Coles	\$3.79
Hairdryer	Linda Accord, 1,200 watt	Kmart	\$24.95

APPENDIX 11.A: Low Cost Budgets (Continued)

Product/Service	Brand and Amount	Source	Price
<i>Hair removal</i>			
Razors (disposable)	Savings 8 pack	Coles	\$2.50
Cartridge razor	Schick Ultra plus razor kit	Kmart	\$4.20
Cartridges/blades for cartridge razor	Schick ultra Plus cartridges 9 pack	Kmart	\$10.60
Shaving cream	Faberge Actif foam shave 300g	Kmart	\$2.95
<i>Make-up</i>			
Lipstick	Colours of Australis Lipstick in Crushed Velvet	Kmart	\$5.95
Foundation	Cover Girl Ultimate Finish Liquid Powder Make-up	Kmart	\$10.45
Mascara	Maybelline Great Lash Mascara	Kmart	\$6.97
<i>Fragrance</i>			
Aftershave	Faberge Marine, Aftershave. 100ml	Kmart	\$13.95
Perfume	Vanilla Fields by Coty	Target	\$22.95
<i>Jewellery</i>			
Watches	Adult Male, Lorus quartz water resistant analogue (cheapest)	Target	\$39.00
	Adult female, Lorus quartz water resistant analogue, RZK291 1-9		\$39.00
	Teenage and 10-year-old boy, Lorus digital		\$29.00
Watch bands	Sabre (male and female)	Kmart	\$5.95
Watch batteries	Battery replacement (includes installation)	Angus and Coote	\$10.00
Earrings	Fashion earrings	Jewellery shop in Randwick	\$12.95
Beads	Fashion necklace/beads	Jewellery shop in Randwick	\$10.95
Brooch	Fashion jewellery	Jewellery shop in Randwick	\$12.95
<i>Sun protection</i>			
Sunscreen	Cancer Council Original formula	Cancer Council	\$3.95
		500g	\$13.95
		500g	\$24.95
		2.5kg	\$54.95
Sun glasses	Cancer Council Aduit—male / female, model 19607	Cancer Council	\$24.95
	Child 6-10 years, model 9623		\$17.95
	Child 2-6 years, model 9622		\$17.95
Insect repellent	Aerogard, 125ml	Coles	\$4.47
Toiletry bags	Cardinali	Kmart	\$3.99
Cosmetic purse	Hold all with handles		\$8.99
Men's Toiletry bag	Cardinali	Kmart	\$5.95

APPENDIX II.A: Modest but Adequate Budgets

Product/Service	Brand and Amount	Source	Price
Personal hygiene			
Soap	Savings Pack of 5 @ 100g	Coles	\$2.05
Nail brush	Oats merryware, autoclave, plastic	Coles	\$2.22
Deodorant/antiperspirant	Mum Dry 24 hr Anti-perspirant deodorant, spray 100g	Coles	\$2.99
	Rexona Sport, spray 150g.		\$4.90
Talcum Powder	Imperial Leather Talcum powder 250g	Coles	\$2.68
Toothpaste	Colgate, Baking soda & Peroxide, 100g	Coles	\$2.98
	Colgate Diamond Head Flex Twin pk - Adults, Med/Soft	Coles	\$5.21
	10 year-old, Disney, Reach childs (7-12 yrs)		\$3.16
	6-year-old, Disney Reach single Wonder G (1-6-year-olds)		\$3.41
	3-year-old My First Colgate Brush, child to 4 years		\$2.50
Mouthguard	Reliance Protective mouthguard	Sportsco	\$8.00
Denture cleansing tablets	Polident 32 tablets	Coles	\$3.53
Moisturising cream	Keri Silky Smooth Daily Moisturising Lotion 310mls	Coles	\$10.89
Facial cleanser	Oil of Ulan Refreshing facial foam Wash. 100g (adult females)	Target	\$6.50
	PhisoHex 200ml (14-year-old boy)	Coles	\$6.99
Pimple cream	14-year-old: Clearasil 18.5gm	Coles	\$6.99
Nail scissors	Starlet	Coles	\$4.10
Nail file/emery board	Manicare Medium Fine Nail Shapers	Coles or Kmart	\$3.00
Cotton balls	Dove, 180 pack	Coles	\$2.99
Tissues	Kleenex Family 224s	Coles	\$1.99
Dental floss	Johnson & Johnson, Reach	Coles	\$2.50
Denture Brush	Jordon, 1 pack	Coles	\$3.99
Women's personal care			
Tampons	Carefree/ Libra Fleur Tampons reg 16s	Coles	\$2.95
Sanitary napkins	Stayfree Silk Winged, regular 16s	Coles	\$3.99
Personal appearance			
Hair cut	Men	Hurstville Shopping Centre	\$18.00
	Woman		\$27.00
	Child (14-year-old)		\$8.00
Home haircut kit (10-, 6- and 3-year old)	Breville 12 piece Pro-power hair cutting set	Kmart	\$52.90
Haircut + colour	S27.00 + \$20.00 (\$47.00) semi-permanent	Hurstville Shopping Centre	\$47.00
Shampoo	Pantene Pro-V Treatment shampoo, 200ml	Coles	(\$4.09) \$4.21
	3-year-old — Cedel Baby Shampoo, 250ml		\$3.10
Conditioner	Pantene Pro-V Treatment conditioner 200ml	Coles	(\$4.09) \$4.21
	3-year-old — Cedel Baby Cond. 250ml		\$3,10
Hair clips / scrunchies	3-year-old — clips, Addis, assorted clips (2). Kids Bits	Coles	\$2.65
	6-year-old—scrunchie, 2 pack. Coles		\$2.50
	35-year-old — scrunchie, 2 pack. Coles and		\$4.95
	Addis—fashion wrap scrunchie		
	6-year-old and 35-year-old—bands. Cameo. 6 pack		\$1.69

APPENDIX 11.A: Modest but Adequate Budgets (Continued)

Product/Service	Brand and Amount	Source	Price
Hair comb	males: Cameo, 4 pack Adult female. Cameo, Comb Shell Detangler, 1 pack Child, female. Cameo hair comb pocket purse	Coles	\$1.35 \$2.15 \$1.39
Hair brush	Children: Cameo brush Adult male, Cameo, Hair Groomer Adult female, Cameo, Brush	Coles	\$3.79 \$4.39 \$5.00
Hair dryer	Remington plus Volumiser, 1,650 Watt	Kmart	\$39.95
<i>Hair Removal</i>			
Razors (disposable)	Gilette Disposable, Blue II Sensitive 8 pack	Coles	\$5.28
Cartridge razor	Gillette sensor razor with 2 cartridges	Kmart	\$4.85
Cartridges/blades for cartridge razor	Gillette sensor cartridges 10 pack	Kmart	\$15.20
Shaving cream	Mermen rapid shave cream, 250g	Kmart	\$3.30
<i>Make-up</i>			
Lipstick	Revlon ColorStay Lip Color in Dusk,	Kmart	\$16.95
Foundation	Revlon New Complexion Make-up	Kmart	\$25.00
Mascara	Lancome Definicils Mascara	Chemist	\$35.00
Blush/bronzing powder	Bourjois Pastel Joues Blusher	Target	\$15.90
Eye shadow	Covergirl 4 Kit Eye Shadow	Target	\$7.60
Nail varnish	Yardley Nail Enamel in Ivory	Target	\$7.30
Nail polish remover	Sally Hansen Non-Acetone Remover	Target	\$4.00
<i>Fragrance</i>			
Aftershave	Faberge Marine, Aftershave, 100ml	Kmart	\$13.65
Perfume	Vanilla Fields by Coty, 15ml	Target	\$22.95
<i>Jewellery</i>			
Watches	Male adult—Lorus RMF5609, analogue. water resistant, quartz, leather band Female adult — Lorus. RRS4129. water resistant, quartz, leather band 14- and 10-year-old males. Lorus digital Sabre (male and female)	Angus & Coote	\$75.00 \$69.95
Watch bands	14- and 10-year-old males. Lorus digital Sabre (male and female)	Target	\$29.00
Watch batteries	Battery replacement (includes installation)	Kmart	\$10.95
Earrings	9ct gold sleepers	Angus & Coote	\$50
Necklace	9ct gold chain	Angus & Coote	\$140
Bracelet	9ct gold chain	Angus & Coote	\$90
<i>Sun protection</i>			
Sunscreen	Cancer Council Titanium Dioxide Formula	Cancer Council	125g \$4.95 500g \$14.95 1 kg \$25.95
Sun glasses	Cancer Council Adult — female / male, model 9616 Child 6 to 10 years—model 9623 Child 2 to 6 years — Bananas in Pyjamas	Cancer Council	\$29.95 \$17.95 \$19.95
Insect repellent	Aerogard, 125ml	Coles	\$4.47
<i>Toiletry bags</i>			
Cosmetic purse	Cardinali Cardinali hold all with handles	Kmart	\$3.99 \$8.99
Men's Toiletry bag	Cardinali	Kmart	\$5.95

Note: (a) Bracketed prices indicate that the item was on 'special' at the price which has been used in the personal care budget.

APPENDIX II.B: A Comparison of Personal Care Budget Item Lifetimes in Australia and the United Kingdom(a)

	Australian lifetimes	UK lifetimes
Personal hygiene		
Soap	1 bar per 6 weeks/per person	4 @ 125g — 3 months
Nail brush	5 years	Not Applicable
Deodorant/antiperspirant	175g spray — 1.75 per year 100g spray — 2 per year 150g spray — 1.5 per year	200ml — 1 per year
Talcum powder	600g — 2 years/person 250g — 1 year/person	large — 24 months per person
Toothpaste	6 tubes per year per person	125ml — every 2 months
Dentalfloss	2 pks per year	Not applicable
Toothbrush	3 months	Every 3 months
Denture brush	3 months (MBA)	Not applicable
Denture cleanser	1 tablet per week	Not applicable
Mouthguard	1 per year	Not applicable
Facial cleanser	Adults: 1/4 tsp. For face 0.6mls/day - 100ml bottle(2.2 per year) 14-year-old: 1 tsp for face 2.4mls. per day	150ml - 6 months
Pimple cream	14-year-old: 0.134g once daily	not applicable
Moisturising cream	Female — 6mls. Per day Male — 3mls. per day	250ml — 6 months
Cotton balls	2 packs per year per person	1 pack — 6 months/2 per year
Tissues	1 tissue per day/person	box of 200 — 3 months
Nail scissors	5 years	3 years
Nail file/emery board	MBA: 2 per year LC: 1 board per month	metal — 5 years
Woman's personal care		
Tampons	25 tampons per cycle	Not Applicable
Sanitary napkins	5 napkins per cycle	pack of 20 — 1 pack per month
Hair care		
Shampoo	1 teaspoon = 3mls 1/2 tsp. (1.5ml) twice a week	300ml — 2.4 months
Conditioner	1 teaspoon = 4mls 1/2 tsp. (2ml) twice a week	350ml — 2.7 months
Hair cut	MBA: 6 weeks LC: 8 weeks	1.5 months
Haircut + colour	Adults Females (MBA): 6 weeks	Not Applicable
Haircutkit	1 per 5 years	Not Applicable
Hair clips / scrunchies	hair bands: 6 pack -1 pack per year hair clips (3-year-old): 4 pack -2 packs per year Scrunchies. 2 pack - 2 per year (MBA) Scrunchies Fashion wrap, 2 per year (MBA)	Not Applicable
Hair comb	2 years	2 years
Hair brush	2 years	2 years
Hair dryer	5 years	Not Applicable
Hair removal		
Razors (disposable)	1 per fortnight 26 per yr 8 per pk (3.3 pks per yr)	pack of 5 — 1.5 months
Cartridge Razor	10 years	not applicable
Cartridges/blades for cartridge razor	1 blade = 6 shaves	razor and blades x 5 fixed — 1.5 months
Shaving cream	15g per shave	200ml — per 3 months

APPENDIX II.B: A Comparison of Personal Care Budget Item Lifetimes in Australia and the United Kingdom (Continued)(a)

	Australian lifetimes	UK lifetimes
Make-up		
Lipstick (MBA and LC)	2 per year PT and Un: 1 per year NILF: 1 per 18 months	1 per year
Foundation (MBA and LC)	35ml bottle FT: 4 per year PT and Un: 3 per year NILF: 2 per year compact FT: 2 per year PT and Un: 2 per 18 mths NILF: 1 per year	Not Applicable
Mascara (MBA)	FT: 4 per year PT and Un: 2 per year NILF: 1 per year	Not Applicable
Blush/bronzing powder (MBA)	FT: 1 per 18 months PT and Un: 1 per 2 years NILF: 1 per 3 years	Not Applicable
Eye shadow (MBA)	FT: 1 per year PT and Un: 1 per 18 mths NILF: 1 per 2 years	Not Applicable
Nail varnish Nail polish remover	1 per 3 years 1 year	Not Applicable Not Applicable
Fragrance		
Perfume	MBA: 1 per year LC: 1 per 18 months	Not Applicable
Aftershave	MBA: 1 per year LC: 1 per 18 months	Not Applicable
Jewellery		
Watches	10 years	10 years
Watch band	2 years	Not Applicable
Watch battery	2 years	Not Applicable
Necklace	MBA: 4 years LC: 1 year	5 years
Bracelet	MBA: 4 years	5 years
Earrings	MBA: FT: 2 pairs -3 years PT and Un: 2pr - 4 yrs NILF: 2 pr 5 years LC: PT and Un: 2pr per year NILF: 1 pair per year	7 pairs—10 years
Brooch	LC: 1 year	Not Applicable
Sun care		
Sun glasses	1 per 2 years	5 years
Sunscreen	10+ years—500g per year 3 - 6 yrs—125g per year	125mls—1 per year
Insect repellent	1 x 125ml bottle per year	Not Applicable
Cosmetic bags		
Cosmetic purse/toiletry	10 years	5 years

Note: (a) FT = employed full-time; PT = employed part-time; Un = unemployed; NILF = not in the labour force; MBA = modest but adequate; LC = low cost.

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CHAPTER 12: THE MODEST BUT ADEQUATE AND LOW COST BUDGET STANDARDS*

12.1 Introduction

Chapters 3 to 11 have described in detail how each component of the overall BSU budget standards were derived, what information was used on existing normative standards, what was done when such information was not available, and what data sources were used to construct and inform the development of the standards in each budget area.

These chapters, along with Chapters 1 and 2 also list the many limitations that attach to the developed budget standards and the qualifications that apply to their interpretation and use. These considerations are not repeated here, although it is very important that they be kept in mind when reviewing the following material.

This chapter brings the nine component budgets together to form the indicative modest but adequate and low cost budgets for each of the 46 BSU household types described earlier (Table 2.1).¹ The discussion begins by considering the modest but adequate budget standards, as these are the starting point from which the low cost standards have been developed, as explained earlier.

Before considering the aggregate budget standards, it is worth pausing to reflect on what is involved in adding up the various budget components to obtain an overall figure. In literal terms, the aggregate figure expresses the monetary cost required by each of the BSU household types to allow them to achieve a modest but adequate (or low cost) standard in *all* of the nine separate budget areas simultaneously.

Although earlier chapters have revealed that the component budgets have been informed by both normative and behavioural factors, the intention has been to ensure that the budgets allow normatively determined needs to be met at prices prevailing in February 1997.

In practical terms, however, if households were provided with an income corresponding to the fully costed budget standards, it is extremely unlikely that they would choose to purchase precisely those goods and services which form the budget standard that has been costed. Household spending decisions are motivated by the aim of maximising the level of household well-being given current resource constraints, not by a desire to satisfy a set of normatively determined needs like those identified and costed in the BSU research.

However, to the extent that, households choose to consume more of some items than is implied in a budget standard, this is only possible in practice if they choose to consume less in other areas. This in turn implies that the norms in these areas will not be achieved, even though the household may have chosen freely not to.

Thus although it might be argued that a budget standard is biased upwards because the same standard of living could be achieved by providing households with a lower level of income and

* This chapter was written by Peter Saunders. Statistical assistance was provided by Jenny Chalmers, George Matheson, Judy Schneider and Robert Urquhart.

¹ There are a number of instances where elements of the component budgets have been derived on the basis of alternative assumptions (regarding whether concessions are included or excluded, for example). Wherever this has occurred, it has been indicated at the time which alternative is used to derive the estimates presented and discussed in this and subsequent chapters of the Report.

letting them choose which goods they wish to purchase, this is only possible in practice if one or more of the budget standards norms is sacrificed.

It is important to appreciate the difference between the *actual budgets* of households (which are the result of consumption choices made within available resource constraints) and the *normative budgets* associated with a budget standard. The fact that some households might be able to improve their well-being by reallocating the resources associated with a given budget standard does not detract from the value of that standard in providing a normative benchmark simultaneously across all budget areas.

The BSU budget standards have been developed to estimate the minimum level of resources required, at price levels prevailing in February 1997, to simultaneously achieve a normatively-informed standard in all of the nine areas described in the foregoing chapters. The fact that households may choose not to consume a budget standard pattern of goods and services if they were presented with a budget standard level of resources does not in any way detract from the validity or usefulness of the budget standard itself, anymore than Australian dietary habits can be claimed to undermine the nutritional guidelines developed and endorsed by the NHMRC.

12.2 The Modest But Adequate Budget and Low Cost Budget Standards

Prior to analysing the aggregate budget standards estimates, it is informative to review the differences which underlie the modest but adequate and low cost standards. This is done in Table 12.1, which also includes the basic definitions of the two standards described earlier in Chapter 2.

As explained in general terms in Chapter 2 and outlined in more detail in the discussion in Chapters 3 to 11, the main differences between the modest but adequate and low cost standards relate to the types of goods and services included (determined through the use of the 50/75 per cent rule wherever possible), the quality and lifetimes of the items included, the particular brands that have been priced, the prices themselves and, in some instances, the impact of any government concessions or rebates.

The other important point to emphasise about the differences between the modest but adequate and low cost standards is that these have resulted from applying general rules wherever possible rather than by implementing a series of essentially *ad hoc* adjustments. The methods have also been heavily influenced by overseas budget standards research, specifically that conducted in Canada, Sweden and the United Kingdom.

It can be argued that the BSU approach to differentiating between the modest but adequate and low cost standards is at least as sophisticated (given the availability of data) as has been done elsewhere. Notwithstanding this, there is still the problem of being confident that the standards to which each of the *individual* component budgets conform are themselves *comparable* between the different budget areas. This, as noted in Chapter 2, presents a major challenge to the entire budget standards methodology, one that cannot be claimed with any confidence to have been fully resolved in the BSU research. This also needs to be borne in mind when reviewing the following material.

The discussion throughout this chapter focuses on the overall modest but adequate and low cost budget standards and their component parts, drawing comparisons between them and between each of them and survey data on household expenditures and other living standard

Table 12.1: Differentiating Between the Modest but Adequate and Low Cost Budget Standards: Summary of Methods Adopted

	Modest but Adequate	Low Cost
DEFINITION	'One which affords full opportunity to participate in contemporary Australian society and the basic options it offers... lying between the standards of survival and decency and those of luxury as these are commonly understood... (falling) somewhere around the median standard of living experienced within the Australian community as a whole.'	'A level of living which may mean frugal and careful management of resources but would still allow social and economic participation consistent with community standards and enable the individual to fulfil community expectations in the workplace, at home and in the community...corresponding to a standard of living which is achievable at about one-half of the median standard.'
OPERATIONAL DIFFERENCES		
Housing budget (renters)	Private renter rents tied to the median of the distribution of rents in the Hurstville LGA Public renters: not applicable	Private renter rents tied to the 25th percentile of the distribution of rents in the Hurstville LGA Public renters: Market rents (inclusive and exclusive of net rental rebates) based on a level of household income equal to the pension plus family payments
Energy budget	Variations according to type of housing and type of electrical items included in the Household Goods and Services budget	
Food budget	Priced according to 'leading brand' prices in several leading retail stores (Woolworths; Bi-Lo; Coles; Franklins)	Priced according to 'generic brand' prices based on Woolworths Home Brand and Franklins No Frills products
Clothing and Footwear budget	Variations in number and type of items according to employment status. Items priced in the middle of the range of observed shelf prices in Target, Kmart, Woolworths and Mathers Shoe stores	Some additional items included where adults are in the labour force. Items priced at the lowest observed shelf prices in Target, Kmart and Woolworths stores
Household Goods and Services budget	Inclusion of items determined by application of the 50 per cent ownership rule. Items priced in the middle of the range of observed shelf prices in a variety of stores	Inclusion of items determined by application of the 75 per cent ownership rule. Many items assigned a longer lifetime though the presence of children in the households shortens lifetimes of some items. Some items priced at the lowest observed shelf prices in a variety of stores
Health budget	Budgets developed both inclusive and exclusive of the cost of private health insurance	No allowance for private health insurance. Concessions included for some medications. Lower prices on some items (e.g. spectacle frames)
Transport budget	Households allocated a car at both standards, although low cost households live further from major shopping centre. Generally, distance travelled depends on employment status. Low cost households have older cars, car accessories with longer lifetimes and buy cheaper petrol by 'shopping around'	
Leisure budget	Leisure goods and activities assigned on the basis of the 50 per cent rule (with variation by labour force status). Annual holiday included. A selected number of leisure goods priced in the middle range of observed shelf prices at Chandlers	Leisure goods and activities assigned on the basis of the 75 per cent rule (with variation by labour force status). Holiday once every three years. Cost of children's toys reduced by 20 per cent reflecting 'shopping around'. A selected number of leisure goods priced at the lowest observed shelf prices at Chandlers
Personal Care budget	In general, costed on the basis of 'leading brand' prices	In general, costed on the basis of 'generic brand' prices

indicators. It should not be forgotten that underlying these aggregate budget standard estimates is a vast array of detailed information, much of which has been described and discussed in the previous nine chapters.

In order to highlight the complexity that surrounds the actual development of a budget standard, Appendix 12.A presents the full details of all of the specific items used to construct the low cost standard for one particular household type—a couple with two children (a 14 year-old boy and a six-year-old girl), where the husband is unemployed and the wife is not in the labour force and who are renting privately.²

Table 12.2 summarises the modest but adequate budget standards for each of the 26 household types described in Table 2.1, while Table 12.3 presents the corresponding 20 low cost budget standards.

Tables 12.2 and 12.3 present the overall budgets for each household type (defined in the key below the Tables) and separates the standards into the nine main BSU commodity groupings. Their layout is designed to facilitate comparisons between the different standards so that the impact of the various factors that underlie them can be identified and assessed.

Thus, it is possible to consider how the modest but adequate budgets in Table 12.2 for a given household type vary according to changes in the specific circumstances of the household, in particular their housing tenure status and, where relevant, the labour force status of the parents and the number, gender and ages of the children.

For example, a comparison of the first two rows of Table 12.2 indicates the difference between the modest but adequate budgets of a single woman according to whether she is living in private rental accommodation or is purchasing her home. Such a comparison reveals (not surprisingly) that the major difference occurs in relation to housing costs, although there are also small differences in the areas of energy, household goods and services and leisure.

Another kind of comparison that can be readily made on the basis of Tables 12.2 and 12.3 involves considering how the budget standards change as the assumed circumstances of the household changes. This involves looking at how the estimates change as one moves down the columns of each table.

Thus, for example, the first column of figures in Table 12.3 shows how sensitive housing costs at the low cost standard are to variations in the assumed housing tenure within each household type, and how housing costs for a given tenure vary between the different household types.

These comparisons illustrate vividly the role of housing costs in the overall BSU budget standards and their sensitivity to whether the household is assumed to be a private renter, a public housing tenant, a purchaser or an outright owner of their home.

In contrast to housing costs, the degree of variation in the component budgets across different household types is generally a good deal less for many of the other budget areas. The areas where there is most variation are, not surprisingly, food, clothing and footwear, household

²

Comparison of the details presented in Appendix 12.A with the corresponding budget standards estimates shown in Table 12.3 serves to remind those who use a budget standard of the enormous amount of data and assumptions that have gone into their development.

Table 12.2: Overall Modest But Adequate Budget Standards (\$ per week)

Household Type	Housing	Energy	Food	Clothing and Footwear	Commodity Group						Total Budget
					Household Goods & Services	Health	Trans-port	Leisure	Personal Care		
H 1 a S Pri	140.23	7.80	50.71	23.97	30.00	4.36	75.77	28.15	22.45	383.44	
Hlb S Pur	227.46	8.24	50.71	23.97	30.44	4.36	75.77	28.15	22.45	471.55	
H2a C Pur	245.17	11.66	111.67	42.20	59.60	10.77	85.40	44.36	32.04	642.86	
H2bC Pri	140.23	10.72	111.67	42.20	37.05	10.77	85.40	43.72	32.04	513.79	
H3a C+2 Pur	268.88	15.16	195.60	70.99	132.08	16.23	91.77	65.13	38.76	894.61	
H3b C+2 Pri	212.93	15.38	195.60	70.99	109.83	16.23	91.77	65.92	38.76	817.42	
H4a S+g6 Pur	245.17	11.52	81.01	37.75	97.92	7.25	77.83	36.14	24.36	618.95	
H4b S+g6 Pri	169.67	10.13	81.01	37.75	75.69	7.25	77.83	36.08	24.36	519.77	
H5a AS Own	46.13	8.69	47.16	14.27	45.07	8.49	55.53	38.63	16.09	280.06	
H6a AC Own	47.72	10.36	95.49	24.61	47.72	16.00	56.15	63.93	25.59	387.57	
H7a C(FF)+g6 Pur	267.19	13.63	141.96	55.98	106.25	13.74	88.76	53.14	33.95	774.60	
H7b C(FF)+g6 Pri	170.06	13.05	141.96	55.98	83.17	13.74	88.76	52.50	33.95	653.17	
H7fC(FN)+g6 Pur	267.48	13.63	141.28	49.92	72.15	9.42	88.40	57.79	30.22	730.28	
H7g C(FN)+g6 Pri	170.06	13.05	141.28	49.92	49.54	9.42	88.40	56.10	30.22	607.98	
H7jC(FP)+g6 Pur	267.19	13.63	141.31	55.98	75.36	9.42	102.08	53.27	31.43	749.68	
H7k C(FP)+g6 Pri	170.06	13.05	141.31	55.98	52.67	9.42	102.08	54.03	31.43	630.04	
H8aC+b14Pur	267.48	13.63	165.31	57.20	85.17	13.34	88.61	62.58	36.85	790.17	
H8bC+bt4Pri	170.06	13.05	165.31	57.20	64.00	13.34	88.61	60.82	36.85	669.25	
H9a C+g3 Pur	267.19	13.63	136.97	54.33	163.83	13.58	88.38	43.20	33.73	814.82	
H9b C+g3 Pri	170.06	13.05	136.97	54.33	125.01	13.58	88.38	42.55	33.73	677.65	
H 1 0a C+3 Pur	270.28	16.68	220.90	83.12	238.40	18.96	100.75	66.22	40.25	1,055.56	
H10bC+3 Pri	213.21	17.28	220.90	83.12	217.43	18.96	100.75	65.61	40.25	977.51	
HI la C+4 Pur	271.77	18.21	263.04	97.20	258.98	21.48	122.29	74.41	42.31	1,169.69	
H 11 b C+4 Pri	213.21	19.17	263.04	97.20	230.20	21.48	122.29	73.76	42.31	1,082.66	
H 12a S+2 Pur	267.19	13.49	123.15	51.83	150.24	9.84	80.81	43.38	26.42	766.35	
H12bS+2Pri	212.93	12.46	123.15	51.83	130.16	9.84	80.81	43.31	26.42	690.92	

KEY: S = single person; C = couple; S+1, 2 = sole parent plus 1, 2 children; C+2, 3, 4 = couple with 2, 3, 4 children; g6 = 6-year-old girl; b14 = 14-year-old boy; g3 = 3-year-old girl; A = aged; (FF) = both partners in full-time work; (FN) = one partner working full-time, the other not in the labour force; (FP) = one partner working full-time, the other working part-time; Pri = renting privately; Pur = purchaser.

goods and services, transport and leisure—all of which are sensitive to the size of the household and, in some instances, to its composition also. In the remaining budget areas (energy, health and personal care) the variation across households tends to be less, at least in absolute terms—a reflection of the fact that these areas tend to contribute least to the overall budgets.

It is not easy to draw any firm conclusions from the budget standards shown in Tables 12.2 and 12.3 when they are considered in isolation. Although the comparisons above provide some revealing insights into the nature and make-up of the BSU budget standards, their relevance can only really be assessed through comparing them with other available income benchmarks. Several such comparisons are considered in Section 12.5 below.

Table 12.3: Overall Low Cost Budget Standards (\$ per week)

Household Type	Housing	Energy	Food	Clothing and Footwear	Household Goods and Services	Commodity Group					Total
						Health	Transport	Leisure	Personal Care		
H1c S Pri	123.67	7.31	39.04	18.08	24.62	3.12	50.32	20.90	6.91	293.97	
H2c C Pri	123.67	9.73	85.79	31.80	30.60	7.27	53.03	27.55	12.18	381.63	
H3c C+2 Pri	195.98	13.42	152.64	54.72	58.92	11.30	61.30	38.11	15.70	602.08	
H4c S+g6 Pri	155.87	7.40	63.87	26.70	32.31	5.19	49.09	23.74	7.65	371.84	
H4d S+g6 Pub	45.93	7.40	63.87	26.70	39.55	5.19-	49.09	24.07	7.65	269.47	
H5b AS Own	46.13	8.20	37.27	13.03	37.19	7.05	38.48	22.15	5.52	215.02	
H5c AS Pub	39.26	5.56	37.27	13.03	23.96	7.05	38.48	22.90	5.52	193.03	
H6b AC Own	47.53	9.37	75.83	21.93	37.08	13.12	39.21	41.16	10.41	295.64	
H6c AC Pub	59.26	7.99	75.83	21.93	30.34	13.12	39.21	39.47	10.41	297.55	
H7cC(UN)+g6Pri	155.87	11.58	110.63	40.41	38.69	9.42	58.51	37.48	12.92	475.51	
H7dC(UU)+g6Pri	155.87	11.58	110.63	44.50	38.69	9.42	61.50	37.25	13.28	482.71	
H7e C(UU)+g6 Pub	69.13	11.58	110.63	44.50	47.08	9.42	61.50	37.15	13.28	404.27	
H7hC(FN)+g6Pri	155.87	11.58	112.44	41.15	38.69	9.42	70.80	34.34	12.92	487.21	
H7i C(FU)+g6 Pri	155.87	11.58	112.44	45.24	38.69	9.42	74.55	35.34	13.28	496.40	
H8cC+b14Pri	155.87	11.58	127.81	42.02	51.32	9.23	53.09	34.56	14.59	500.06	
H9c C+g3 Pri	155.87	11.58	105.31	38.24	43.73	9.00	52.85	28.63	12.94	458.16	
H10cC+3Pri	196.37	14.82	172.15	65.25	70.81	12.95	72.87	37.44	16.63	659.29	
H11 c C+4 Pri	196.37	16.22	204.61	77.75	82.82	14.85	78.08	43.13	17.94	731.77	
HI2c S+2Pri	195.98	9.25	96.33	39.20	48.40	7.17	51.18	29.25	8.97	485.72	
HI2d S+2Pub	52.93	9.25	96.33	39.20	58.00	7.17	51.18	29.25	8.97	352.27	

KEY: See Key to Table 12.2. C(UN) = couple with one partner unemployed and the other not in the labour force; C(UU) = couple with both partners unemployed; C(FN) = couple with one partner in full-time work and the other not in the labour force; C(FU) = couple with one partner in full-time work and the other unemployed.

One area where comparison of the overall budget standards is important and illuminating concerns the relativities between the modest but adequate and low cost standards for households of a given type, holding housing tenure constant. This relativity has, in theory at least, been pre-determined by the way in which the two standards have been defined and articulated. Thus, as explained in Chapter 2 (and re-stated in Table 12.1), the modest but adequate standard is presumed to represent a standard lying close to the median, while the low cost budgets should reflect a standard around half the median.

Taken literally, this implies that the ratio of the low cost and modest but adequate standards for a given household type should be in the vicinity of 0.5. Before considering whether or not this is the case, it is worthwhile to refer back to the discussion in Chapter 2, where the difficulties of ensuring that the standards are held constant across the different budget areas were highlighted.

That discussion also drew attention to the ambiguity in the specification of the low cost standard at one-half rather than two-thirds of the median, two-thirds of the median being the level established by the Watts Committee in its 'lower living standard' for the United States (to which the verbal description of the Australian low cost standard corresponds very closely).

With these issues in mind, Table 12.4 compares the low cost to modest but adequate relativities across the different BSU household types for which it is possible to hold housing tenure constant.

The calculations in Table 12.4 indicate that for single adults and couples (aged or non-aged), the low cost budgets are around 77 per cent of the modest but adequate budgets, while for sole parent households the relativity is around 71 per cent and for couples with children it falls between 67 per cent and 80 per cent according to the number of the children and their age.

For both couples and sole parent households, there is a general tendency for the relativity to decline as the number of children increases, although the estimated relativity for couples with one child varies considerably with the age of the child (mainly as a consequence of changing child care costs, an issue discussed in more detail in Chapters 7 and 14).

Table 12.4: The Relativity Between the Low Cost and Modest but Adequate Budget Standards for a Given Housing Tenure

Household Type	Housing Tenure	Low Cost Standard (LC) (\$)	Modest but Adequate Standard (MBA) (\$)	Ratio of LC to MBA (%)
H1 (Single female 35)	Private renter	293.97	383.44	76.7
H ₂ (Couple)	Private renter	381.63	513.79	74.3
H ₃ (Couple + 2 children)	Private renter	602.08	817.42	73.7
H ₄ (Sole parent + girl 6)	Private renter	371.84	519.77	71.5
H ₅ (Single female 70)	Outright owner	215.02	280.06	76.8
H ₆ (Aged couple)	Outright owner	295.64	387.57	76.3
H ₇ (Couple + girl 6) ^(a)	Private renter	487.21	607.98	80.1
H ₈ (Couple + boy 14)	Private renter	500.06	669.25	74.7
H ₉ (Couple + girl 3)	Private renter	458.16	677.65	67.6
H ₁₀ (Couple + 3 children)	Private renter	659.29	977.51	67.4
H ₁₁ (Couple + 4 children)	Private renter	731.77	1,082.66	67.6
H ₁₂ (Sole parent + 2 children)	Private renter	485.72	690.92	70.3

Note: (a) Assumes the husband works full-time and the wife is not in the labour force (H_7^g and h).

Source: Tables 12.2 and 12.3.

On the face of it, the budget standard relativities in Table 12.4 imply either that the low cost budgets are too high, or that the modest but adequate budgets are too low, or that a combination of the two exists. The relativities are all well above 50 per cent, although they are close to (though still somewhat above in most cases) the 66.7 per cent (two-thirds) relativity implicit in the Watts Committee's articulated standards described in Chapter 2.

One tentative conclusion suggested by the results in Table 12.4 is the possibility, alluded to in Chapter 2, that the verbal articulation of the low cost standard as being sufficient to 'allow social and economic participation consistent with community standards' is somewhat at odds with what is practically achievable at only half of the median living standard in the community as a whole.

Such an assessment must, however, remain somewhat speculative until the absolute level of the two budget standards are compared more closely with the standards of living actually experienced in the Australian community. This issue is taken up in the following section.

12.3 Comparing the BSU Budget Standards with Household Budgets

For budget standards to help inform decisions regarding the adequacy of income support levels and other income and living standard benchmarks, they must have legitimacy. This requires that the standards are based on the best available expert judgements regarding consumption norms and other related normative standards, and that these norms are translated into a budget standard using the most recent and comprehensive data.

These requirements are necessary for budget standards research to gain legitimacy within the research community, but they are not sufficient to ensure that budget standards are seen as legitimate in the broader community.

In order to achieve this, it is also necessary that steps be taken to ensure that the expert judgements that form the basis for budget standards are tested against both accepted community standards and prevailing community behaviour and opinion. As explained in Chapter 2, the BSU budget standards project has been designed to allow several avenues through which feedback can be obtained on both the expert judgements implicit in the standards and from groups of households whose living standards the indicative budgets are supposed to represent.

The main vehicles for achieving these two forms of feedback are the BSU Steering Committee and the focus groups brought together to assist in the development of the budgets and comment on the initial outputs from the research. These have both been described elsewhere in the Report and are not discussed further here.

The emphasis in the following discussion is on using data on actual household expenditures as part of the broader process of testing the validity of the estimated budget standards so as to generate confidence in them and thus to promote their acceptance and legitimacy. It should be emphasised, however, that the analysis reported below represents only the first stage in this process. Gaining broad community understanding and acceptance of budget standards will take time.

Given the enormous number of judgements required to derive a budget standard, and the complexity of the whole exercise, it is inevitable that the BSU standards should be regarded not as definitive and immovable, but rather as the basis for further debate and refinement. The great advantage of a budget standard from this perspective is that it provides a clear framework within which that debate can proceed and its implications be tracked and, where relevant, endorsed and implemented.

Conceptual Problems with the Validation of Budget Standards

In light of the fact that budget standards attempt to articulate the cost of achieving a particular standard of living for a household in given circumstances, it is inevitable that the resulting standards will be compared with the budgets of actual households. However, as explained at length in Chapter 2, the use of behavioural data on actual spending patterns to validate what are a set of normative budget standards must be undertaken with extreme care.

The main danger to be avoided is that to the extent that observed patterns of expenditure in part reflect constraints on the availability of resources within the household, using them to validate budget standards can undermine any claim that a budget standard provides an *independent* needs-based benchmark for assessing the adequacy of incomes and living standards.

Furthermore, once the normative content of a budget standard is compromised in this way, it can be argued that it would be better to abandon the budget standards approach entirely and proceed instead to develop benchmarks based directly on actual expenditures. It could then be left to the community generally (or to decision makers acting on their behalf) to determine the standards of living and adequacy levels to which such benchmarks correspond.

The adoption of such a purely descriptive approach would certainly be a good deal simpler and less expensive, but it would also represent the negation of any role for normative judgements (as articulated in a budget standard) in decisions regarding the adequacy of a particular standard of living.

Rather than adopt such a position, the budget standards framework attempts to tread the fine line between the normative and behavioural (or descriptive) approaches by amending the norms and expert judgements that underlie a given standard in the light of observed behaviour and community feedback.

This process takes place to a certain extent at every stage of the development of budget standard, as is apparent from the material presented in Chapters 3 to 11. Furthermore, it is important to recognise that all existing norms pay some regard to what actually happens in the society to which they apply.

These considerations suggest that care must be taken in deciding whether and how to modify a budget standard in the light of data on actual expenditure patterns. To a large extent, the BSU budget standards have, in the process of their development, already been heavily influenced by existing patterns of behaviour across all areas of the budgets. In the light of this, questions arise over whether or not any further modification of the final budgets is warranted. Above all, it is important to highlight any differences where they arise, and either explain how the budgets have been modified as a result or provide a justification for why they have not been.

As Bradshaw (1993) explains in relation to the budgets developed by the Family Budget Unit (FBU) in the UK:

'Although the FBU budgets are different in some respects from the actual budgeting behaviour of households with similar characteristics in the Family Expenditure Survey (FES), this does not mean that the FBU budgets are wrong or invalid. Our budgets were not designed to represent the "average" behaviour of families participating in the FES. On the contrary, it is the essence of budget standards methodology that the standard is not overly constrained by lack of income, or representative behaviour.' (Bradshaw, 1993, p. 172-173.)

The key point is that once budget standards are adjusted to reflect existing patterns of budgeting behaviour, they lose their ability to provide an *independent* basis for assessing adequacy, or for informing other decisions relating to household finances.

One of the uses to which budget standards have been put in several European countries, for example, has been to provide a benchmark budgeting profile to assist low income families to better manage their finances. However, the ability of budget standards to fulfil this role would be weakened if the standards themselves reflect what households actually do with the incomes that are available to them.

In summary, in order for budget standards to play a useful role in most of the purposes for which they are intended, they must maintain a degree of independence from actual spending patterns, with such differences reflecting the normative judgements from which the budget standards are derived.

Validation of a budget standard against actual household expenditures can thus play an important role in refining the standard at the margin, but if the impact of validation becomes too pervasive, the value and purpose of the budget standard itself will be compromised.

Identifying the Median

As noted in Chapter 2, the two standards at which the indicative BSU budgets have been developed—the low cost and modest but adequate standards—bear a very close resemblance to the concepts of the 'prevailing family standard' and the 'lower living standard' developed almost 20 years ago by the Watts Committee in the United States (Watts, 1980).

As with the prevailing family standard in the US, the modest but adequate standard for Australia is defined as falling 'somewhere around the median living standards experienced within the Australian community'. In contrast, whereas the US lower living standard was envisaged as being around two-thirds of the prevailing family standard (and thus falling around two-thirds of the median), the low cost standard in Australia is defined as falling around half of the median.

Given that the budget standards are articulated in this way, it is clear that validating them against actual household living standards is a central component of the research. However, before this can be undertaken it is necessary to explore the issues involved in identifying what exactly is meant by 'the median living standards experienced within the Australian community'.

This involves giving consideration to two inter-related but distinct issues:

- On what basis is the standard of living to be determined?; and
- On what basis is the median standard to be identified?

In relation to the first of these issues, there is a vast literature on the measurement of living standards, much of it reviewed in recent Australian contributions by Brownlee (1990) and Travers and Richardson (1993).

The arguments summarised by these authors will not be repeated. Rather, it has been assumed that the level of household expenditure provides a reasonable measure of standard of living, not so much for any particular theoretical reason, but rather because, as discussed at more length in Appendix 1.A, the budget standards approach aligns closely with the framework within which household expenditure data are collected and presented by the Australian Bureau of Statistics. The obvious place at which to attempt to validate budget standards is thus to use data on actual household budgets.

In choosing between the alternative approaches to establishing a reference standard, one of the most important questions that has to be answered is whether or not the budget standard for a particular household type should be compared with the median expenditure among households of that type only, or with median expenditure among all households, or with some other measure?

For example, should the budget standard for sole parent families be compared with the median standard of living of sole parents generally, or to the median living standard of single people, or to that of a reference family containing two parents? Should the standards for age pensioners be set relative to a norm for young families, or relative to the norm for pensioner households generally?

If the budget standard for a particular household type is compared with, and adjusted towards, the median level of living actually experienced by that group, then the standards will reproduce the living standards differences between groups that currently exist. The disadvantage experienced generally by sole parent households, for example, will be reflected in a reduced standard for that group, just as groups who are currently relatively advantaged will have their budget standards revised upwards.

It follows from this line of reasoning that validation of a budget standard *within* household types does not provide a sensible basis for adjustment in the light of behavioural data on actual expenditures. However, if instead it is accepted as preferable to compare, for validation purposes, budget standards with actual expenditure profiles for all households, a further problem arises. This relates to the difficulty of placing different kinds of households on the same basis so that their living standards can be compared and ranked.³

It is now widely acknowledged that some allowance must be made for differences in need when using data on household expenditures (or incomes) to rank households by their standard of living. The level of household expenditure itself is not a reliable indicator of the standard of living because in isolation it cannot indicate the extent to which needs are being met. Expenditure must be compared with the needs it has to meet before the standard of living which it can support can be determined.

This adjustment is generally made by applying an equivalence scale to household expenditure (or income) where the equivalence scale reflects the *relative* needs of different households (Whiteford, 1985).

The equivalence scale itself can be estimated in a number of different ways, most of them using actual expenditure data, although there is no agreement on which method is superior. Those which are best in theory tend to be very difficult to apply in practice, and those which can be most readily applied in practice tend to have little or no theoretical basis.

Furthermore, application of the different methods can produce a different scale from the same set of expenditure data. This observation, in combination with the fact that there currently exists no agreed Australian equivalence scale, suggests that where an equivalence adjustment is made, a range of alternative equivalence scales should be used and some sensitivity analysis undertaken.

³ It is necessary for household living standards to be ranked from lowest to highest before the median standard (which occurs exactly half way up the ranking) can be identified.

The equivalence scale adjusts household expenditures for differences in household need and thus allows the different observed expenditures to be compared directly and thus ranked. The median is the mid-point in this ranking. Even here, however, things are not entirely straightforward. As has been pointed out by Atkinson (1995), in deriving the median (or other statistical measures of the central tendency of a given distribution) a method for weighting the sample observations has to be selected so that the results have relevance to the population as a whole. Which weighting pattern should be used for this purpose?

Three alternatives are available. The first involves applying a weight of unity to each household. This is equivalent to treating each *household* equally, irrespective of their size. The second involves weighting each household by the number of household members, which treats each *individual* equally. The third involves applying a weight to each household which is equal to the number of need-adjusted (or equivalent) individuals in the household, a method which would treat each *equivalent adult* equally and thus give less weight to children than to adults because their needs (as expressed in the equivalence scale) are lower.

As empirical research by Atkinson and his colleagues (Atkinson *et al.*, 1993; 1994) demonstrates, research institutes and statistical agencies in different European countries use different weighting methods and these can exert a large impact on cross-country comparisons of poverty and the incidence of low income—even if the same equivalence scale is used. Thus, the first (household weighting) method has been used in France, the second (individual weighting) by the UK Department of Social Security, and the third (equivalent adult weighting) in Germany.

In general, the choice between the alternative weighting methods depends upon the task at hand. To weight households by the number of equivalent adults in the household would serve to obscure the analysis and necessitate a change in the weighting procedure each time the equivalence scale is changed.

Although in general there is much to be said in favour of using individual weights when analysing the distribution of income and other aspects of inequality either within (Saunders and Hobbes, 1988) or between (Atkinson, Rainwater and Smeeding, 1995) countries, the measurement of economic inequality is not the main focus of research on budget standards.

On balance, these considerations, combined with the fact that the household has already been chosen as the unit of analysis, suggest that there is much to be gained from weighting by households when deriving the distributional ranking, and this procedure will be used here.

As noted above, applying an equivalence scale to the expenditure of each household allows them all to be put on a comparable basis so that the median level of (equivalent) household expenditure (as well as half the median) can be derived. Once this has been done, it is possible to use the equivalence scale to work backwards to derive the actual level of actual expenditure for each household which corresponds to the median (or half-median) level of equivalent (or need-adjusted) expenditure.

⁴

For example, Atkinson *et al.* (1993, Table 3) show that if household weights are used along with a poverty line set at 50 per cent of mean income, the poverty rate in France in 1984-85 is 13.5 per cent, almost 50 per cent higher than that in the UK in the same year of 9.2 per cent. If instead, an individual weighting pattern is used with everything else unchanged, the two poverty rates become 12.5 per cent and 10.3 per cent, respectively—the poverty rate differential in the two countries changing from around a half to about a quarter.

The actual household expenditures that result from these calculations correspond to the levels of expenditure required by households of differing size and composition to achieve the same standard of living as the household at the median of all expenditures, taking into account differences in need as reflected in the equivalence scale. These expenditures can then be used to form the basis for validating the results that emerge by applying the budget-standards approach separately to each household type.

The main problem with this approach is that it contains an implicit circularity because it relies on the use of an equivalence scale which embodies an estimate of how household needs vary with household size and composition, when one of the goals of developing budget standards is to estimate relative household needs in order to produce a new equivalence scale.

The problem can best be seen by observing that if the method described above is applied in practice to identify the median of the equivalence-adjusted expenditure distribution and the actual household expenditures that correspond to this point for different types of household, the expenditure relativities reflected in these actual values will be identical to the relativities implicit in the equivalence scale used to adjust expenditures in the first place. In the light of this, the method does not appear to provide a useful basis for validating budget standards.

The problem identified above could be overcome if the method were applied using a range of different equivalence scales, in the hope that a consistent pattern emerges for all of the scales experimented with. If it does not—and there is no clear basis for deciding whether the pattern is consistent or not—then the method provides no useful guide to how to adjust the budget standards whilst at the same time maintaining their *independence* as the basis for estimating relative needs.

If the equivalence-scale adjustment method is rejected, two alternative approaches are available. The first method involves interpreting the articulation of the median benchmark as applying only to a *specific* household type. This was the approach recommended by the Watts Committee in the US where, as noted earlier, it was stated explicitly that the prevailing and lower living standards applied specifically to (non-aged) households comprising two parents and two children.

The median level of expenditure for this household type can be derived without the use of an equivalence scale (putting to one side the possibility that needs may vary with the age and gender of individual household members). If the budget standard for the reference household is close to the median level of expenditure for that household and if the budgets for different households have been developed at the same overall standard of living, then the budget standards as a whole are linked directly to the median for the reference household.

Even accepting that the Watts Committee had serious reservations over the use and value of budget standards, arguing that it is inherently difficult to develop 'technical, scientifically based criteria for defining living levels in the neighbourhood of any conceivable American living standard' (Watts, 1980, p. 57), it seems somewhat limiting to base the development of an adequacy benchmark on a single household type, particularly given that the two-parent two-child household is now much less typical than it once was.

The greatly increased diversity of household forms over the last two decades further adds to the limitations of adopting a single type of household as a reference point when establishing

adequacy standards (a criticism which also applies to the use of the two-parent, two-child 'reference family' in the determination of the Henderson poverty line).⁵

Another practical limitation of the 'reference family' method proposed by Watts is that even with a given equivalence scale, the expenditures derived for each household type which correspond to the median for the reference household are sensitive to which reference household is selected.⁶

In addition, as Bradshaw (1991) has shown using data from the 1985 *Family Expenditure Survey*, applying the Watts 'reference household' method produces very different results for the UK from those derived by estimating directly the median expenditure separately for each household type. These differences also vary across different households, in both size and direction (Bradshaw, 1991, Tables 2 and 3).

On the basis of his extensive analysis of the strengths and limitations of the Watts 'reference family' method, Bradshaw concludes that:

'Even if median expenditure is adopted as a modest-but-adequate standard for one family type, it is extremely difficult to establish an equivalent modest-but-adequate income for another family type. How do you decide which family should be the base family?'(Bradshaw, 1991, p. 17.)

These difficulties highlight the problems inherent in setting a standard which is both universal in its application but also reflects the diverse needs of different household types. Overall, the 'reference family' method proposed by Watts appears to be of limited relevance to situations where a full-blown budget standards methodology is being used.

In the light of this, a second approach to the validation issue has been used. Rather than attempt to resolve the problems involved in comparing different households at the same standard of living without the use of an equivalence scale to do so, the proposed method recognises that it is the task of budget standards research to develop budgets for different households that correspond to the same living standard. It follows from this that it is counter-productive to validate budget standards using a *separate* method (an equivalence scale) for placing different households on the same standard.

Instead, the alternative approach involves locating the derived budget standard for each household in the distribution of expenditure for all households of that type and accepting the fact that because inequalities in living standards exist, the norms which shape the budget standards will cause them to fall at different points in the expenditure distributions of each separate household type.

Once the location of each budget standard in the distribution of actual expenditures for that household type has been determined, interesting questions are opened up that can generate a valuable debate on the appropriateness of the budget standard itself and on the desirability of

⁵ The two-adult, two-child household is still one of the most common household types (see below) and one might therefore expect the budget standard for that household not to diverge markedly from the median expenditure benchmark.

⁶ The only situation where this is not the case is in the unlikely event that the median expenditures of different households vary in exactly the same way as the equivalence scale itself.

the existing differences in the levels and patterns of expenditure between (and within) different household types.

This approach has the advantage that it is explicit and can form the basis for a discussion of whether or not some amendment to the budgets is justified. Such a discussion can also be informed by two further pieces of information.

The first would draw on comparisons of the budget standards with the actual distribution of expenditure for the more common household types—couples with one or two children, for example—along the lines of Watts' 'reference family' approach.

The second element involves comparing the *composition* of the budget standards with the composition of actual expenditure, at least at a general level so as to provide some guidance on areas where the standards deviate most from the observed patterns of expenditure.⁷ These comparisons are brought together here and reported across those household types where the data allow meaningful comparisons to be undertaken.

Data Issues

The data used for the purpose of validating the BSU budget standards are taken from the 1993-94 *Household Expenditure Survey* (HES) undertaken by the Australian Bureau of Statistics between July 1993 and June 1994 (ABS, 1996a). The actual source of the data is the confidentialised unit record file (curf) produced by ABS from the survey.⁸

The curf contains detailed information on the characteristics and expenditures of 8,389 households containing 25,660 individuals. The household records on the file each contain a 'weight' which takes account of the probability of selection in the sample for those in each region of Australia, with an adjustment to allow for under-enumeration (ABS, 1996b, p. 2). These weights can be used to derive estimates of the national aggregates that correspond to the sample estimates provided on the HES curf.

Although the coverage of the HES is very extensive and its overall sample size is large, there is only a limited range of household types for which a budget standard has been developed (Table 2. 1). This gives rise to the question of whether or not the HES data allow the actual household types specified in Table 2. 1 to be identified as the basis for drawing valid comparisons with the derived normative budgets, and if so, how many households there are in the HES with characteristics that correspond to those assigned to the budget standard households.

Several problems arise in practice. The first is that the degree of detail provided on the HES curf does not generally allow the BSU household types to be identified. For example, information provided on the 1993-94 HES curf about the age of each household member is supplied in age ranges only and does not distinguish between boys and girls, providing information only about the characteristics of the children in the household.

⁷ Aspects of this form of comparison have already assisted in the development of some of the component budgets, as described in parts of Chapters 3 to 11.

⁸ As explained by ABS (1996b), the curf is made available in a form which meets the confidentiality requirements of the *Census and Statistics Act 1905* by reducing or suppressing some of the details for some data items.

A second problem is that even when an approximation is used—for example, by taking those whose age falls within the range 35-39 years as corresponding to those assigned an age of 35 in Table 2.1—the resulting HES sample size is often too small to permit any meaningful statistical analysis to be undertaken.

A further difficulty arises where there are multiple income units living in a single household. This occurs rather frequently in the HES, so that it is an issue of practical importance. It is likely that a degree of resource sharing occurs within these multiple-income-unit households, particularly where the members of the different units are related. To the extent that such sharing of resources occurs, it will distort the expenditures of the household as a whole relative to those of the separate income units residing within it.

Because the BSU budget standards apply to households containing only one income unit, it is necessary to exclude from the curf all multiple-income-unit households. This has the effect of reducing the total HES sample from 8,389 households to 6,429, a reduction of over 23 per cent.

Finally, there is the fact that the latest HES data were collected over the course of the 1993-94 financial year, whereas the budget standards have been costed at February 1997 prices. Changes in the *absolute level of prices* over the intervening period have been handled by updating the HES data by movements in the Consumer Price Index (CPI) between financial year 1993-94 and the March Quarter 1997.⁹

This updating method takes no account of movements in *relative prices* between 1993-94 and the March Quarter of 1997, although to the extent that relative prices changed over the period, there would have been some response to these in terms of household expenditure patterns that should, ideally be taken into account.¹⁰

However, this would require the use of a full model of household consumption behaviour which is well beyond the scope of this project and would in any case be difficult to justify given the many other imperfections that apply to the validation exercise as a whole.

These practical limitations that apply to the use of the HES curf data to validate the budget standards suggest that it is only possible to provide an approximate indication of how the standards compare with behavioural data on actual household expenditure patterns.

On what basis should the comparisons be made for validation purposes? In order to decide this, it is important to recall that the purpose of the validations is to serve as a check on the broad orders of magnitude of the budget standards, not to provide a firm benchmark to which they should conform. Table 2.1 reveals that there are many dimensions along which the BSU household types differ, including their overall size and composition (in terms of the numbers of adults and children), the age of individual household members, the labour force status of each adult and the housing tenure of the household.

⁹ It would be possible to apply separate price adjustments to each budget component, although this has not been done because it would give the impression of a degree of accuracy in the comparisons which is not warranted given the practical problems alluded to above. The issue of how the BSU budget standards should be adjusted over time to reflect price movements and other changes is discussed in Chapter 15.

¹⁰ The practice adopted of updating the HES data in line with movements in the CPI will only give rise to serious problems if there were large changes in relative prices between 1993-94 and early 1997 that are not accounted for. The main area where relative price changes between 1993-94 and early 1997 have been considerable is in housing, a reflection of the decline in mortgage interest rates over the period.

In determining which of these dimensions should be selected as the basis on which to try and validate the budget standards, the basic structure of each household in terms of its size and composition is the natural starting point. This provides the following 10 basic household types from the list in Table 2.1; a single female, a couple without children, couples with one, two, three and four children, an older single female, an older couple, and a female sole parent with one and two children.¹¹

Should one go further than this, by attempting to distinguish on the basis of labour force status and housing tenure within each of these 10 basic categories? In some instances, this is not possible without reducing the sample size to such a small number that it becomes virtually worthless as a basis for comparison. However, even if the sample is large enough to allow disaggregation within some household types, the question arises of whether or not this is desirable.

The critical point here is that the specific circumstances of households of a given type are likely to influence the consumption pattern of the household and thus affect any comparison with the budget standard for that household. Although the standards themselves have been derived from a very clear and precise specification of the circumstances of each household, it is not clear that the same approach should be applied to the HES data for the purposes of validation—or at least not to anything like the same extent—bearing in mind that the goal of the validation exercise is to provide a 'reality check' against broad orders of magnitude, rather than to provide a precise benchmark against which the standards can be compared and modified.

It is nonetheless useful to explore, for situations where the HES sample size permits it, how sensitive the validation comparisons are to different specifications of the detailed circumstances of the households for which HES data are compared with the BSU budget standards. As implied earlier, this is only possible for a few of the most common household types, although how the comparisons change in these cases may provide an initial pointer to how they might vary for some of the others also.

Results: Constructing the HES Samples

Table 12.5 uses the available HES classifications to define several alternative household type definitions that are consistent with the broad structure of each of the basic BSU household types shown in Table 2.1. The left hand column shows the HES specification which most closely approximates that shown in Table 2.1, given the HES data that are actually available. An important limitation here (noted earlier) is that the HES curf does not provide information on the gender of children, which restricts the HES households as shown.

Moving from left to right across the rows of Table 12.5 involves adopting at each stage a somewhat more expansive definition of the household characteristics, first by expanding the age range of each household member, and then also by expanding the assumed labour force status of each adult in the household.

Having defined each broad household type in several alternative ways, Table 12.6 shows how the HES sample size for each household type varies as the assumed circumstances of each household is incrementally broadened.

¹¹ This reference to 10 basic household types differs from the reference to 12 basic BSU household types elsewhere in the Report because the three couple households with one child (H_7 , H_8 and H_9) have been collapsed into a single category that does not distinguish on the basis of the age of the child.

Table 12.5: Alternative Definitions of the Basic Household Types Shown in Table 1

Household type	Actual	Extending age range	Extending age range and workforce status	All households of this type
H ₁	F35-39, WSFT	F25-54, WSFT	F25-54, WS	F25-54
H ₂	M40-44, WSFT F35-39, WSFT	M25-54, WSFT F25-54, WSFT	M25-54, WS F25-54, WS	M25-54 F25-54
H ₃	As H ₂ plus: C5-9, C13-14	As H ₂ plus: C<15, C<15	As H ₂ plus: C<15, C<15	As H ₂ plus: C<15, C<15
H ₄	As H ₁ plus: C5-9	As H ₁ plus: C<15	As H ₁ plus: C<15	As H ₁ plus: C<15
H ₅	F70-74, RTD	F60+, RTD	F60+, RTD	F60+
H ₆	M70-74, RTD F70-74, RTD	M65+, RTD F60+, RTD	M65+, RTD F60+, RTD	M65+ F60+
H ₇	M40-44, ILF F35-39, ILF C5-9	M25-54, ILF F25-54, ILF C5-9	M25-54, ILF F25-54, ILF C5-9	As H ₂ plus: C5-9
H ₈	As H ₂ plus: C13-14	As H ₂ plus: C<15	As H ₂ plus: C<15	As H ₂ plus: C<15
H ₉	As H ₂ plus: CO-4	As H ₂ plus: C0-4	As H ₂ plus: C0-4	As H ₂ plus: C0-4
H ₁₀	As H ₂ plus: C0-4, C5-9, C13-14	As H ₂ plus: C<15, C<15, C<15	As H ₂ plus: C<15, C<15, C<15	As H ₂ plus: C<15, C<15, C<15
H ₁₁	As H ₂ plus: C0-4, C5-9, C5-9, C13-14	As H ₂ plus: C<15, C<15, C<15, C<15	As H ₂ plus: C<15, C<15, C<15, C<15	As H ₂ plus: C<15, C<15, C<15, C<15
H ₁₂	As H ₁ plus: C0-4, C5-9	As H ₁ plus: C<15, C<15	As H ₁ plus: C<15, C<15	As H ₁ plus: C<15, C<15

Key: FX-Y = female aged between X and Y; MX-Y = male aged between X and Y; C = child (boy or girl); < 15 = aged under 15; WSFT = full-time wage and salary earner; WS = full-time or part-time wage and salary earner; ILF = in the labour force (employed or unemployed but excluding the self-employed); RTD = retired.

Source: 1993-94 Household Expenditure Survey; confidentialised unit record file.

Before discussing the results, it should be noted that even the initial specification shown in the first column of Table 12.5 defines each household type in relation to only the age and work force status of each adult in the household. No variation is allowed for differences in housing tenure, because taking account of housing status in addition to age and work force status, results in the HES samples becoming far too small for validation purposes, as will be demonstrated shortly.

Table 12.6 provides information on the size of the relevant HES samples when households are defined according to the household characteristics specified in the corresponding cell in Table 12.5.¹² It can be seen that in several cases, the initial sample size (shown in the first column of Table 12.5) is very low, sometimes even zero. Thus, it is not possible to use the HES data to carry out detailed comparisons at the level of detail for which the BSU budget standards have been developed.

Table 12.6: Household Types and (Unweighted) Numbers

Household type ^(b)	Actual	Number of households in HES sample ^(a)		
		Extending age range	Extending age range and work force status	All households of this type
H,	34	166	201	287
H ₂	8	340	440	735
H ₃	3	108	297	684
H ₄	1	31	59	104
H ₅	122	505	505	590
H ₆	40	320	320	594
H ₇	3	63	63	110
H ₈	3	108	214	434
H.	0	44	111	239
H ₁₀	0	38	109	333
H ₁₁	0	3	25	90
H ₁₂	0	14	43	95

Notes: (a) Definitions of the alternative samples are provided in Table 12.5.

(b) Household types are described in detail in Table 2.1.

Source: 1993-94 *Household Expenditure Survey*: confidentialised unit record file.

However, there are also a number of instances where extending the age range of household members (Table 12.6, column 2) produces an increase in sample size large enough to allow useful comparison to proceed although there are still many cases where this is not so. Extending the way in which work force status is specified causes the HES sample size to increase markedly further in several cases, although there are still a number of household types where the sample size is still rather small.

¹²

The HES sample has been further restricted somewhat by excluding households with *either* zero or negative recorded values for household disposable income or for total commodity and service expenditure (hereafter referred to as expenditure).

Only when the household characteristics are defined very broadly in terms of age and gender alone, as shown in the final column of Table 12.6, does the sample size for all 12 household types approach what is required for validation purposes.

Ideally, the HES household samples used for validation purposes should be based on household definitions which are as close as possible to those that correspond to the BSU household types. This means choosing the sample for a given household that lies as far to the left as possible in Table 12.5. In several instances, however, Table 12.6 indicates that the definition of household types has to be broader than this—often considerably so.

In order to decide how broadly to extend the household definitions, it is necessary to ask how large a sample is needed to allow meaningful comparisons of the budget standards with the HES data? There is no definitive answer to this question, but the final decision has been guided by the fact that some of the comparisons will be made with the expenditure quintiles of each household type. On this basis, drawing on the UK experience, it was decided that the minimum sample size should be set (if possible) at around 150, which allows for each quintile to contain about 30 households.

With this in mind, the estimates in Table 12.6 have formed the basis for deciding the level at which the HES data are to be used for validation purposes. As noted previously, the first choice that was made involved collapsing together the couples with one child of differing ages (households H₇, H₈ and H₉ in Table 12.5). For the remaining households, the approach selected was to select a sample falling as far to the left as possible in Table 12.5, whilst at the same time maximising the value of the resulting inter-household comparisons.

Thus, in relation to households with one child (household types H₇, H₈ and H₉), the entry in the third column of Table 12.6 was used, because this ensures that adults are defined in the same way as for couples with two or three children (household types H₃ and H₁₀, respectively). For couples with four children (H₁₁) and sole parents with one (H₄) or two (H₁₂) children, the sample definitions used were those shown in the final column of Table 12.6, because even then the sample size was below the target of 150 proposed earlier. (The samples that were eventually used are shown in bold type in Table 12.6.)

It is clear from Table 12.6 that even before any attempt is made to take account of the variations in housing status of the BSU household types, the sample sizes available on the HES for purposes of validation and comparison are rather small. There are, however, several household types where it is possible to explore whether varying housing tenure still leaves a usable sample in terms of size.

In order to do this, the following six additional household types were defined, each of them being a sub-group of the households defined in Table 12.5. (The relevant HES sample sizes are again shown in bold):

- H21: As H₂ as defined in Table 12.5 but where both adults are employed full-time and are also renting private, unfurnished accommodation (n = 1);
- H22: As H₂ in Table 12.5 but where both adults are employed full-time and are also purchasing their own home (n = 193);
- H31: As H₃ in Table 12.5 but where both adults are employed full-time and are also purchasing their own home (n = 75);

- H₇₈₉₁: As the combination of H₇, H₈ and H₉ in Table 12.5, but where both adults are employed full-time and are also purchasing their own home (n = 67);
- H₅₁: As H₅ in Table 12.5 but is also an outright owner (n = 343); and
- H₆₁: As H₆ in Table 12.5 but also an outright owner (n = 271),

The rationale for selecting these additional household types is that they correspond closely to the characteristics of the BSU household types as defined in Table 2.1 across a range of labour force status and housing tenure combinations.

It is clear that there is no point in proceeding with the first of these additional household types (H₂₁) as there is only one case on the HES curf with those characteristics. Of the remaining five specific household types, the sample size is sufficiently large in three of them but smaller than is ideal for the other two. In light of this, results are presented below (in Table 12.7) for household types H₂₂, H₅₁ and H₆₁ in addition to the basic households listed in Tables 12.5 and 12.6.

As a final variation, household type H2 was further restricted somewhat to include only those households where both adults are aged from 25 to 44 rather than from 25 to 54, in an attempt to exclude 'empty nest' households without dependent children to assess what difference this makes to the comparisons. The rationale for this rests on the proposition that the couple-only household (H₂) for which a budget standard has been derived is assumed to be in its pre-family formation stage, not one that has seen its children reach the age of independence.

Restricting age in this way produced samples of 283 and 148 cases, respectively, according to whether or not the more restricted definitions of housing tenure and labour force status were also imposed. These two sub-samples will be referred to below as H₂* and H₂₂*, respectively.

In addition to the procedures already outlined for deriving the relevant HES samples, the HES data themselves were further modified in two ways. First, any negative recorded expenditures on specific commodities (which reflect the revenues received by the household when they sell particular items) were re-coded to zero. Clearly, it is inappropriate to include these 'negative expenditures' when using the HES data to validate the BSU budget standards, which make no allowance for sales of goods by the household.¹³

The other adjustment involved reorganising the HES data slightly so that the commodity code classifications are consistent with the budget standards component classifications. What this involves in practice is spelt out in detail in Appendix 1.C.

Results: Aggregate Comparisons

Comparisons between the BSU budget standards and the HES data have been undertaken at two levels. The first, aggregate level comparisons, are designed to locate the budget standards within the overall distribution of actual household expenditures for each of the different household types described earlier. The second stage of the analysis compares the composition of the budget standards across the main budget areas with the HES data on household expenditure patterns.

¹³

This is not to deny that, in practice, households may choose to sell some of the goods they own to improve their well-being, or to meet needs that would otherwise go unmet.

Table 12.7: Alternative Summary Measures of Total Expenditure by Household Type (\$ in March Quarter 1997)

Household type	Mean Expenditure	Adjusted Mean Expenditure ^(a)	Median Expenditure	Adjusted Median Expenditure(b)	Summary BSU Budget Standards:	
					Modest but Adequate	Low Cost
H1 (SF)	536.60	497.10	469.20	496.00	383.40	293.60
H ₂ (CPL +O)	903.40	826.30	785.90	829.90	513.80	381.00
H ₂₂	1,068.40	992.70	924.30	985.90	642.90	-
H ₂₂ *	1,057.10	979.30	922.00	980.40	642.90	-
H ₃ (CPL+2)	905.30	834.90	815.20	848.90	817.40	601.90
H ₄ (SP + 1)	414.30	389.00	379.60	396.40	519.40	371.70
H ₅ (AS)	204.90	185.00	183.80	190.10	280.10	214.90
H ₅₁	208.00	185.40	185.80	192.20	280.10	214.90
H ₆ (ACPL)	356.70	318.40	312.20	327.70	387.60	296.50
H ₆₁	362.00	323.30	324.00	335.50	387.60	296.50
H ₇₈₉ (CPL+1)	871.70	825.10	799.00	827.60	608.00	458.00
					to 677.70	to 499.90
H ₁₀ (CPL+3)	975.40	910.50	857.40	937.90	970.40	659.10
H11(CPL+4)	849.60	824.50	773.40	811.70	1,117.70	731.60
H ₁₂ (SP+2)	502.30	468.90	450.70	473.20	689.30	485.60

KEY: SF = single female; CPL = couple; CPL + X = couple plus X children; SP + X = sole parent plus X children; AS = aged single; ACPL = aged couple; H₂₂ = as H₂, but both partners working full-time and household is a purchaser; H₂₂* = as H₂₂, where both adults are aged from 25 to 44, not 25 to 54; H₅₁= as H₅, but outright owner; H₆₁= as H₆, but outright owner.

Notes: (a) Adjusted mean excludes the highest and lowest 10 per cent of expenditures within each household category.
 (b) Adjusted median is the mean value of the expenditures lying between the 40th and 60th percentiles of the distribution of expenditures for each household type.

Source: Tables 12.2 and 12.4 above (rounded to the nearest 10 cents), plus *1993-94 Household Expenditure Survey*; confidentialised unit record file.

Before turning to the results, it is important to emphasise that the analysis reported below was initially undertaken at an earlier stage of the budget standards project when the preliminary budget standard estimates were first produced. These were compared with the HES data derived using the methods explained above at both the aggregate and disaggregate levels and the resulting comparisons were used as the basis for modifying the budget standards in those areas where marked divergences from the HES data were observed.

The main areas where these initial comparisons led to a revision of the budget standards were in relation to the housing and transport budgets. In the case of the transport budget, the initial BSU transport budget was revised downwards closer to the HES data by revising several of its components (including the types of motor vehicles assigned to some households and the way that motor vehicle depreciation was estimated).

In relation to housing, the issue was more complex because of the approach taken in developing the BSU housing budget (see Chapter 3), although again the HES comparisons prompted several downward revisions to the preliminary housing budget.¹⁴

Within each of the household types shown in Tables 12.5 and 12.6 and those sub-sets of these described earlier, the aggregate level analysis involves comparing the budget standards with the mean and median levels of expenditure for each household type.

Comparisons were also made with a 'truncated mean', derived by excluding those households falling within the top and bottom 10 per cent of the overall distribution, in order to assess the sensitivity of the comparisons to outlying observations on the HES. A modified version of the median was also estimated by taking the mean value of the expenditures of those households falling 10 per cent either side of the median of the overall expenditure distribution.

In making the comparisons, it was necessary to adjust the HES data for price changes between financial year 1993-94 when they were collected and February 1997, the period for which the BSU budget standards have been priced. This was done by inflating all of the HES data by changes in the CPI average for the eight capital cities between 1993-94 and the March Quarter 1997.¹⁵

The resulting estimates are presented in Table 12.7 for each household type, as well as for the more finely specified sub-samples whose characteristics more closely resembled the assumed characteristics of the BSU household types.¹⁶ For completeness, Table 12.7 also includes the summary modest but adequate and low cost budget standards shown in Tables 12.2 and 12.3.¹⁷

It is clear from the first four columns of Table 12.7 that there is a considerable difference between the four alternative measures of central tendency. In general, excluding the top and bottom 10 per cent of each household type (when ranked according to their total recorded expenditure) causes the mean expenditure to decline—generally by between five per cent and eight per cent for non-aged households and by around 11 per cent for aged households.¹⁸

The fact that excluding the outlying observations causes the median to decline reflects the skewed nature of the distribution of expenditure, combined with the fact that there is a zero limit on low expenditures but no such restriction on those at the top of the distribution.

As compared with the actual median, the adjusted median value taken as the mean of the expenditures lying between the 40th and 60th percentiles, tends to lie between three per cent and seven per cent higher. This again reflects the shape of the distribution of household expenditure in the region of the median. It is interesting to note that in all cases except couples with three or four children, the adjusted estimate of the median expenditure is very close to the adjusted estimate of the mean expenditure.

¹⁴ It should also be pointed out that the initial BSU budget standards were not only revised using the HES comparisons, but also in response to comments and feedback provided by members of the BSU Steering Committee and from the focus group discussions (see Chapter 13).

¹⁵ The adjustment factor used to inflate the HES data was equal to $120.5/110.4 = 1.0914855$ (ABS, 1997).

¹⁶ As noted earlier, these sub-samples allow an assessment to be made of the sensitivity of the comparisons to variation in the specific characteristics of the household.

¹⁷ The budget standards shown in the final two columns of Table 12.7 assume a particular type of housing tenure. Details are provided in Table 12.4.

¹⁸ The decline is only about three per cent for households with four children, although this may reflect the small sample size in this instance.

Since each of these two adjusted measures are based on averaging the data so as to reduce the influence of particular observations, this similarity suggests that these adjusted measures are probably more reliable than the direct mean and median expenditures.

Another important feature of the results in Table 12.7 concerns the differences between the mean and median expenditures for those HES samples that correspond more closely to the actual budget standard household types. This adjustment makes relatively little difference in the case of the aged households, primarily because most of these households are outright owners so that whether the sample is restricted to outright owners or not is relatively unimportant.

This is not the case, however, with the third household type where it was possible to define a sub-sample that was sufficiently large to allow meaningful analysis to be conducted. In this case (household type H_2 , the couple with no children) restricting the comparisons to those where both partners are working full-time and where the household is purchasing their own home causes all four measures to rise very considerably—by between 17 per cent and 20 per cent, although the two adjusted measures still remain very close to each other.

The results in Table 12.7 indicate that while the overall median level of expenditure among childless couple households is around \$786, for couples without children who are working full-time and purchasing their home, the median is closer to \$924 a week—around 18 per cent higher. Clearly, it makes a great deal of difference which of these two measures is used to compare and validate the budget standard for this household type.

This is an important finding, because it illustrates how sensitive estimates of the median level of expenditure are to the precise circumstances of the household (particularly their housing tenure and labour force status), even within households of a given size and structure. However, when the sample of childless couple households was further restricted to exclude 'empty nest' households without children (shown as H_{22}^* in Table 12.7) there was, somewhat surprisingly, only a minor impact on the value of all four measures, and this version of the restricted sample is thus not considered further.

For completeness, the final two columns of Table 12.7 show, respectively, the summary modest but adequate and low cost BSU budget standards. These provide an initial indication of how close the budget standards lie to the (adjusted) median (and mean) levels of expenditure for each household type, bearing in mind the limitations that attach to such direct comparisons.

It is clear that the degree of similarity between adjusted median (or mean) expenditure and the modest but adequate budget standard varies considerably across the different household types. In some cases (the single female and couples with no or one child) the budget standards lie below adjusted median expenditure, while in all other cases the budget standard lies above the median—well above in the case of the single older female, sole parents with one or two children and couples with four children. In contrast, the two estimates are close together for couples with three children.

The main limitation of the comparisons presented in Table 12.7 is that it is difficult to gauge whether or not the differences are significant without some knowledge of the shape of the overall distribution of household expenditure. If, for example, the expenditures for a specific household type are bunched closely together, the divergence between the median and a budget standard is more significant than if the distribution of actual expenditures is more widely dispersed.

For this reason, it is informative to locate the budget standard **for each** household type within the overall distribution of expenditures for households of that (approximate) type. This is done in **Table 12.8**, which shows how the low cost and modest but adequate budgets compare with the expenditure quintiles for each household type (after adjusting for movements in the CPI, as before).

Table 12.8: Locating the Low Cost and Modest But Adequate Budget Standards in The Distribution of Actual Household Expenditure by Household Type (Figures rounded to the nearest 10 cents)

Household Type ^(a)	Low Cost (\$)	Quintile	Modest but Adequate (\$)	Quintile	P80/P20 Ratio ^(f)
H1 (SF)	294. 00 ^(b)	First	383. 40 ^(b)	Second	2.078
H ₂ (CPL+0)	381. 70 ^(b)	First	513. 80 ^(b)	First	2.112
H ₂ *	-	-	642. 90 ^(c)	Second	2.279
H ₃ (CPL+2)	602. 10 ^(b)	Second	817. 40 ^(b)	Third	1.952
H ₄ (SP+1)	371. 80 ^(b)	Third	519. 80 ^(b)	Fourth	1.940
H ₅ * (AS)	215. 00 ^(d)	Fourth	280. 10 ^(d)	Fifth	2.091
H ₆ * (ACPL)	295. 60 ^(d)	Third	387. 60 ^(d)	Fourth	2.117
H ₇₈₉ (CPL+1) ^(e)	458. 20 ^(b) to 500. 10 ^(b)	First	608. 00 ^(b) to 677. 70 ^(b)	Second	1.889
H10(CPL+3)	659. 30 ^(b)	First/Second	977. 50 ^(b)	Fourth	1.915
H11(CPL+4)	731. 80 ^(b)	Third	1, 082. 70 ^(b)	Fifth	2.006
H ₁₂ (SP+2)	485. 70 ^(b)	Third	690. 90 ^(b)	Fifth	2.070

Notes: (a) Household types are defined in the KEY below Table 12.7.

(b) Private renter.

(c) Purchaser.

(d) Outright owner.

(e) Range varies with I[he age of the child.

(f) Ratio of the 80th to the 20th percentile of the distribution of actual household expenditures.

There are several important qualifications attaching to the results in Table 12.8. Firstly, to repeat the point made earlier, the actual expenditures recorded in the HES reflect any resource constraints **that** prevent households **from** being able to purchase the items they may require to meet their needs. This implies that where households are more constrained in practice, the more likely it will be that the budget standards lie towards the top of the actual expenditure distribution—because no explicit account has been taken of resource constraints when developing the normatively-based budget standards.

The second qualification has already been illustrated by the results in Table 12.7, which demonstrate that estimates of median expenditure levels are sensitive to the precise characteristics assigned to households when using the HES data to derive the expenditure distributions. As noted earlier, it is generally not possible to obtain sufficiently large samples of HES households with similar characteristics to those to which the budget standards refer.

These considerations suggest that not too much importance should be attached to the precise details of the comparisons that follow. They can do no more than provide a rough benchmark against which to compare and validate the budget standards.

The most striking feature of the results in Table 12.8 (like those in Table 12.7) is the extent to which the distributional quintiles in which both the low cost and modest but adequate standards are located differ across the different household types. Even given the qualifications referred to above, the low cost budget standard lies in the bottom quintile of the distribution of expenditures in some instances, whereas in others it falls as high as the third, or in one case, the fourth quintile.

These findings imply that many of these latter households do not currently appear to have the resources required to achieve a low cost standard of living. This leads naturally to further questions relating to the identification of those areas where the budget standard norms are not being met and what impact this has on the well-being of the household. These issues are explored in more detail below, when the composition of the BSU budget standards is compared with actual household expenditure patterns as recorded in the HES.

As expected, Table 12.8 indicates that the modest but adequate standards fall into the higher quintiles of the expenditure distribution, although here the variation across different households is even greater. In one case, for example, (household type H_2 , couples without children), the fact that the modest but adequate budget falls in the lowest quintile of the expenditure distribution (though only just) implies that the great majority of these households are achieving a higher than modest but adequate standard of living.

The other point to bear in mind when interpreting the results in Table 12.8 is that the different quintile positions of the low cost and modest but adequate budget standards reflect the shape of the distributions of expenditure for each household type. Some of these are much more skewed than others.

An indication of the extent to which the actual expenditure distributions differ is provided in the final column of Table 12.8 which shows the P80/P20 ratio—the ratio of the 80th to the 20th percentile of expenditure for each household type. The fact that this ratio varies from below 1.9 to almost 2.3 cautions against placing too much emphasis on the different quintile locations of the low cost and modest but adequate standards for different households. In some cases, the difference between the second and fourth quintiles of expenditure, for example, is associated with a considerably smaller difference in the actual level of expenditure levels than in others.

A more complete picture of where the BSU budget standards lie in the distribution of expenditure for each household type is presented in Figure 12.1. These compare the mean expenditure levels for each quintile of the distribution of actual expenditures (derived from the 1993-94 HES and updated to February 1997 prices as explained earlier) with the modest but adequate and low cost budget standards, respectively.¹⁹

Figure 12.1 show more vividly the extent to which the distribution of expenditure varies for each household type, even given that the quintile mean expenditures represent a rather crude indicator of expenditure inequality. In the light of these differences, caution must attach to any

¹⁹ The source for the estimates presented in Figure 12.1 is Table 12.8. The figure used for couple households with one child of different ages (H_{789}) is the mean of the range shown in Table 12.8.

Figure 12.1

Figure 12.1: Locating the Low Cost(LC) and Modest but Adequate(MBA) Budget Standards in the Distributions of Actual Household Expenditure by Household Type (February 1997 Prices)

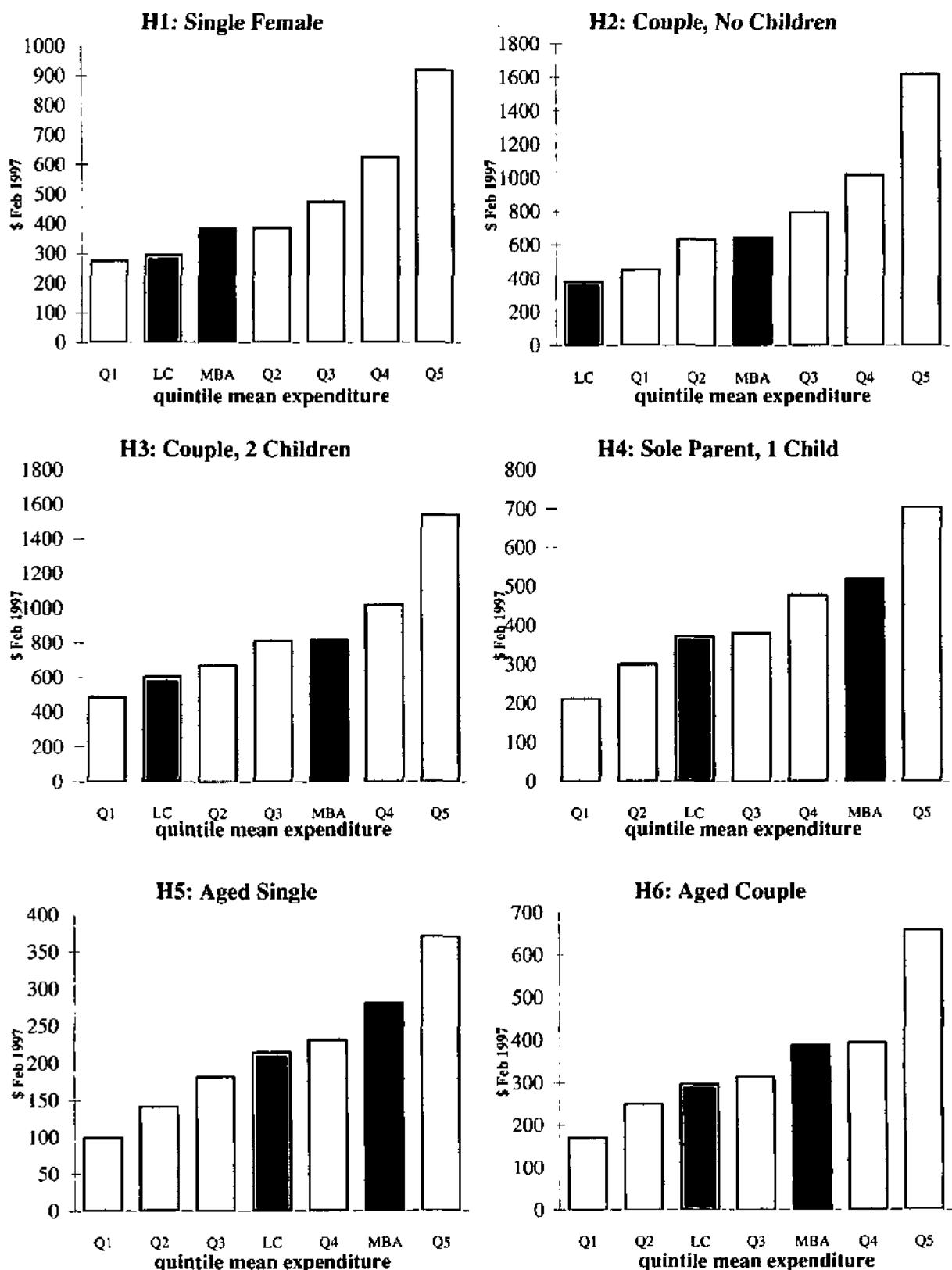
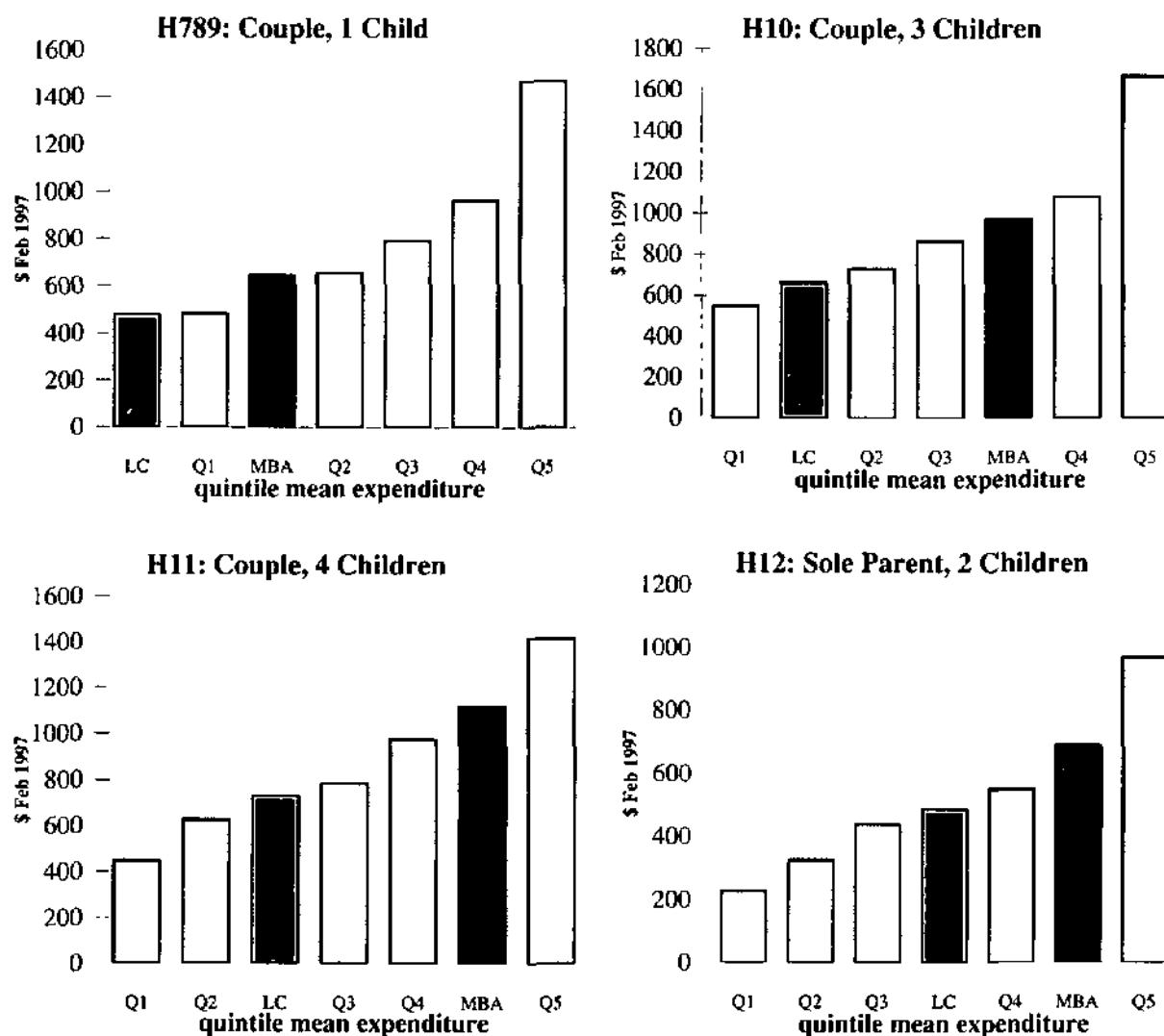


Figure 12.1 (continued)

Figure 12.1: Locating the Low Cost(LC) and Modest but Adequate(MBA) Budget Standards in the Distributions of Actual Household Expenditure by Household Type (February 1997 Prices)



Sources: 1993-94 Household Expenditure Survey; confidentialised unit record file and Tables 12.2 and 12.3

single estimate of where the budget standards fail in the distribution of actual expenditure, because that figure will often be quite sensitive to small variations in the budget standards which are, it should be remembered, only indicative.

Results: Compositional Comparisons

Having explored the extent to which the *level* of the low cost and modest but adequate budget standards compare with the actual expenditure levels of similar households, Tables 12.9 and 12.10 explore the degree of similarity in the *composition* of the household budgets and the actual expenditures as reported in the HES.²⁰

Table 12.9 presents the comparisons in terms of absolute expenditure or budget levels (expressed in February 1997 prices), while Table 12.10 shows how the budget shares compare with the HES expenditure proportions for each household.²¹

An important aspect of these comparisons to bear in mind is that the HES data on housing costs are averages across a broad spectrum of households of a given type, whereas the budget standards assume a specific housing circumstance for each household type. Because of this, the housing cost comparisons shown in Tables 12.9 and 12.10 are somewhat misleading.

However, in light of the aggregate significance of housing costs in many household budgets, any inaccuracies in this dimension of the cost composition comparisons will also affect other spending areas.

In order to take account of this, two versions of the budget share comparisons are shown in Table 12.10. The first set of budget share comparisons includes housing costs, while the second (shown in brackets) excludes the housing budget (or housing expenditures) and expresses the remaining components as a percentage of the non-housing budget (or non-housing expenditures).

The comparisons between the budget standards and the absolute expenditure levels in Table 12.9 reveal that the areas where the BSU budgets differ most consistently from the HES average expenditures for each household type (aside from housing, where the comparisons vary considerably across the different household types) are in the areas of health, transport and leisure and, in a number of instances, households goods and services. In each of these areas, the BSU budgets are generally lower than average expenditures as recorded in the HES.²²

Exceptions to this general rule occur in the case of the transport budget of the single older female and in the leisure budget of both older households, where the BSU budgets are higher than the HES figures. In relation to the older woman's transport budget, this reflects the normative decision to allocate her a car, despite the fact that car ownership amongst this group is well below 50 per cent—a decision which has a large impact, as explained in Chapter 9.

²⁰ For the purposes of these comparisons, the HES commodity classifications have again been varied so that they conform with the classification on which the budget standards have been developed (see Appendix 1.C).

²¹ The HES budget shares shown in Table 12.10 have been derived as the ratios of the mean absolute expenditures shown in Table 12.9.

²² It should be remembered that the household goods and services budgets are extremely sensitive to the contribution of child care expenses to the budgets of households with younger children (see Chapter 7).

Table 12.9: Comparison of the Levels of the Low Cost (LC) and Modest but Adequate (MBA) Budget Standards with Actual Household Expenditures as Recorded in the Household Expenditure Survey (HES) (\$ per week in February 1997 prices)^{(a)(b)}

Budget Area	Single Female			Couple without Children		
	LC	MBA	HES	LC	MBA ^(c)	HES ^(d)
Housing	123.7	140.2	164.4	123.7	245.2	333.6
Energy	7.3	7.8	12.2	9.7	11.7	17.3
Food	39.0	50.7	81.0	85.8	111.7	168.3
Clothing and Footwear	18.1	24.0	37.8	31.8	42.2	54.7
Household Goods and Services	24.6	30.0	71.2	30.6	59.6	186.4
Health	3.1	4.4	22.3	7.3	10.8	34.4
Transport	50.3	76.8	68.4	53.0	85.4	132.8
Leisure	20.9	28.2	64.0	27.0	44.4	120.4
Personal Care	6.9	22.5	15.2	12.2	32.0	20.4
Total	294.0	383.4	536.5	381.6	642.9	1,068.3
Budget Area	Couple with Two Children			Sole Parent with One Child		
	LC	MBA	HES	LC	MBA	HES
Housing	196.0	212.9	187.3	155.9	169.7	108.8
Energy	13.4	15.4	22.1	7.4	10.1	14.5
Food	152.6	195.6	185.4	63.9	81.0	80.1
Clothing and Footwear	54.7	71.0	56.6	26.6	37.8	23.8
Household Goods and Services	58.9	109.8	161.3	32.3	75.7	75.7
Health	11.3	16.2	45.2	5.2	7.3	17.7
Transport	61.3	91.8	120.8	49.1	77.8	51.7
Leisure	38.1	65.9	107.0	23.7	36.1	34.8
Personal Care	15.7	38.8	19.5	7.7	24.4	7.2
Total	602.1	817.4	905.3	371.8	519.8	414.3
Budget Area	Single Aged Female			Aged Couple		
	LC ^(e)	MBA ^(e)	HES	LC ^(e)	MBA ^(c)	HES
Housing	46.1	46.1	30.5	47.5	47.7	39.4
Energy	8.2	8.7	10.8	9.4	10.4	14.9
Food	37.3	47.2	51.1	75.8	95.5	101.7
Clothing and Footwear	13.0	14.3	12.2	21.9	24.6	18.2
Household Goods and Services	37.2	45.1	39.8	37.1	47.7	61.0
Health	7.1	8.5	14.3	13.1	16.0	24.9
Transport	38.5	55.5	23.2	39.2	56.2	54.1
Leisure	22.2	38.6	19.0	41.2	64.0	39.4
Personal Care	5.5	16.1	7.2	10.4	25.6	8.5
Total	215.0	280.1	208.1	295.6	387.6	362.0

Table 12.9: Comparison of the Levels of the Low Cost (LC) and Modest but Adequate (MBA) Budget Standards with Actual Household Expenditures as Recorded in the Household Expenditure Survey (HES) (\$ per week in February 1997 prices)^{(a)(b)}
(Continued)

<u>Budget Area</u>	Couple with One Child			Couple with Three Children		
	LC ^(f)	MBA ^(f)	HES	LC	MBA	HES
Housing	155.9	170.1	195.4	196.4	213.2	182.8
Energy	11.6	13.1	19.3	14.8	17.3	25.2
Food	127.8	165.3	166.6	172.2	220.9	203.9
Clothing and Footwear	42.0	57.2	45.0	65.2	83.1	64.6
Household Goods and Services			141.9			180.0
Health	9.2	13.3	38.4	13.0	19.0	34.8
Transport	53.1	88.6	146.6	72.9	100.8	150.4
Leisure	34.6	60.8	97.6	37.4	65.6	116.0
Personal Care	14.6	36.9	20.9	16.6	40.3	17.6
Total	500.1	669.3	871.7	659.1	970.4	975.4
<u>Budget Area</u>	Couple with Four Children			Sole Parent with Two Children		
	LC	MBA	HES	LC	MBA	HES
Housing	196.4	213.2	151.1	196.0	212.9	131.0
Energy	16.2	19.2	22.8	9.3	12.5	17.4
Food	204.6	263.0	195.8	96.3	123.2	96.9
Clothing and Footwear	77.7	97.2	36.9	39.2	51.8	36.9
Household Goods and Services						82.4
Health	14.9	21.5	29.8	7.2	9.8	17.8
Transport	78.1	122.3	146.0	51.2	80.8	58.9
Leisure	43.1	73.8	116.6	29.3	43.3	49.1
Personal Care	17.9	42.3	14.4	9.0	26.4	12.0
Total	731.6	1,082.7	849.7	485.7	690.9	502.3

- Notes:** (a) Household types are defined in more detail in Table 12.8. Unless stated otherwise, all households are assumed to be private renters.
- (b) The HES data have been updated to the March Quarter 1997 by movements in the CPI.
- (c) Assumed to be purchasers.
- (d) Assumes both partners are working full-time and are purchasers. (There are not enough cases on the HES corresponding to the assumed circumstances for the low cost budget.)
- (e) Assumed to be an outright owner.
- (f) The child is assumed to be a 14-year-old boy.

Table 12.10: Comparison of the Expenditure Patterns in the Low Cost (LC), Modest but Adequate (MBA) Budget Standards with the Household Expenditure Survey (HES) (Percentages of total budget/expenditure)(a)

Budget Area	Single Female			Couple without Children		
	LC	MBA	HES	LC	MBA ^(b)	HES ^(C)
Housing	42.1	36.6	30.6	32.4	38.1	31.2
	(-)	(-)	(-)	(-)	(-)	(-)
Energy	2.5	2.0	2.3	2.5	1.8	1.6
	(4.3)	(3.2)	(3.3)	(3.8)	(2.9)	(2.4)
Food	13.3	13.2	15.1	22.5	17.4	15.8
	(22.9)	(20.8)	(21.8)	(33.3)	(28.1)	(22.9)
Clothing and Footwear	6.2	6.3	7.0	8.3	6.6	5.1
	(10.6)	(9.9)	(10.2)	(12.3)	(10.6)	(7.4)
Household Goods and Services	8.4	7.8	13.3	8.0	9.3	17.4
	(14.5)	(12.3)	(19.1)	(11.9)	(15.0)	(25.4)
Health	1.1	1.1	4.2	1.9	1.7	3.2
	(1.8)	(1.8)	(6.0)	(2.8)	(2.7)	(4.7)
Transport	17.1	20.0	12.7	13.9	13.3	12.4
	(29.5)	(31.6)	(18.4)	(20.6)	(21.5)	(18.1)
Leisure	7.1	7.4	11.9	7.1	6.9	11.3
	(12.3)	(11.6)	(17.2)	(10.5)	(11.2)	(16.4)
Personal Care	2.3	5.9	2.8	3.2	5.0	1.9
	(4.1)	(9.3)	(4.1)	(4.7)	(8.0)	(2.8)
Total	100.0	100.0	100.0	100.0	100.0	100.0
Budget Area	Couple with Two Children			Sole Parent with One Child		
	LC	MBA	HES	LC	MBA	HES
Housing	32.6	26.0	20.7	41.9	32.6	26.3
	(-)	(-)	(-)	(-)	(-)	(-)
Energy	2.2	1.9	2.4	2.0	1.9	3.5
	(3.3)	(2.5)	(3.1)	(3.4)	(2.9)	(4.7)
Food	25.3	23.9	20.5	17.2	15.6	19.3
	(37.6)	(32.4)	(25.8)	(29.6)	(23.1)	(26.2)
Clothing and Footwear	9.1	8.7	6.3	7.2	7.3	5.7
	(13.5)	(11.7)	(7.9)	(12.3)	(10.8)	(7.8)
Household Goods and Services	9.8	13.4	17.8	8.7	14.6	18.3
	(14.5)	(18.2)	(22.5)	(14.9)	(21.6)	(24.8)
Health	1.9	2.0	5.0	1.4	1.4	4.3
	(2.8)	(2.7)	(6.3)	(2.4)	(2.1)	(5.8)
Transport	10.2	11.2	13.3	13.2	15.0	12.5
	(15.1)	(15.2)	(16.8)	(22.7)	(22.2)	(16.9)
Leisure	6.3	8.1	11.8	6.4	6.9	8.4
	(9.4)	(10.9)	(14.9)	(11.0)	(10.3)	(11.4)
Personal Care	2.6	4.7	2.2	2.1	4.7	1.7
	(3.9)	(6.4)	(2.7)	(3.6)	(6.9)	(2.4)
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 12.10: Comparison of the Expenditure Patterns in the Low Cost (LC), Modest but Adequate (MBA) Budget Standards with the Household Expenditure Survey (HES) (Percentages of total budget/expenditure)(a)(Continued)

Budget Area	Single Aged Female			Aged Couple		
	LC ^(d)	MBA ^(d)	HES	LC ^(d)	MBA ^(d)	HES
Housing	21.4	16.5	14.7	16.1	12.3	10.9
Energy	3.8 (4.9)	3.1 (3.7)	5.2 (6.1)	3.2 (3.8)	2.7 (3.1)	4.1 (4.6)
Food	17.3 (22.1)	16.9 (20.2)	24.6 (28.8)	25.6 (30.6)	24.6 (28.1)	28.1 (31.5)
Clothing and Footwear	6.0 (7.7)	5.1 (6.1)	5.9 (6.9)	7.4 (8.8)	6.3 (7.2)	5.0 (5.6)
Household Goods and Services	17.3 (22.0)	16.1 (19.3)	19.1 (22.4)	12.5 (14.9)	12.3 (14.0)	16.9 (18.9)
Health	3.3 (4.2)	3.0 (3.6)	6.9 (8.1)	4.4 (5.3)	4.1 (4.7)	6.9 (7.7)
Transport	17.9 (22.8)	19.8 (23.7)	11.1 (13.1)	13.3 (15.8)	14.5 (16.5)	14.9 (16.8)
Leisure	10.3 (13.1)	13.8 (16.5)	9.1 (10.7)	13.9 (16.6)	16.5 (18.8)	10.9 (12.2)
Personal Care	2.6 (3.3)	5.7 (6.9)	3.5 (4.1)	3.5 (4.2)	6.6 (7.5)	2.3 (2.6)
Total	100.0	100.0	100.0	100.0	100.0	100.0
Budget Area	Couple with One Child			Couple with Three Children		
	LC ^(e)	MBA ^(C)	HES	LC	MBA	HES
Housing	31.2	25.4	22.4	29.8	22.0	18.7
Energy	2.3 (3.4)	2.0 (2.6)	2.2 (2.9)	2.2 (3.2)	1.8 (2.3)	2.6 (3.2)
Food	25.6 (37.1)	24.7 (33.1)	19.1 (24.6)	26.1 (37.2)	22.8 (29.2)	20.9 (25.7)
Clothing and Footwear	8.4 (12.2)	8.5 (11.5)	5.2 (6.7)	9.9 (14.1)	8.6 (11.0)	6.6 (8.2)
Household Goods and Services	10.3 (14.9)	9.6 (12.8)	16.3 (21.0)	10.7 (15.3)	21.7 (27.8)	18.5 (22.7)
Health	1.8 (2.7)	2.0 (2.7)	4.4 (5.7)	2.0 (2.8)	2.0 (2.5)	3.6 (4.4)
Transport	10.6 (15.4)	13.2 (17.7)	16.8 (21.7)	11.1 (15.8)	10.4 (13.3)	15.4 (19.0)
Leisure	6.9 (10.1)	9.1 (12.2)	11.2 (14.4)	5.7 (8.1)	6.8 (8.7)	11.9 (14.6)
Personal Care	2.9 (4.2)	5.5 (7.4)	2.4 (3.1)	2.5 (3.6)	4.2 (5.3)	1.8 (2.2)
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 12.10: Comparison of the Expenditure Patterns in the Low Cost (LC), Modest but Adequate (MBA) Budget Standards with the Household Expenditure Survey (HES) (Percentages of total budget/expenditure)(a) (Continued)

Budget Area	Couple with Four Children			Sole Parent with Two Children		
	LC	MBA	HES	LC	MBA	HES
Housing	26.8	19.7	17.8	40.4	30.8	26.1
Energy	2.2 (3.0)	1.8 (2.2)	2.7 (3.3)	1.9 (3.2)	1.8 (2.6)	3.5 (4.7)
Food	28.0 (38.2)	24.3 (30.2)	23.0 (28.0)	19.8 (33.2)	17.8 (25.8)	19.3 (26.1)
Clothing and Footwear	10.6 (14.5)	9.0 (11.2)	4.3 (5.3)	8.1 (13.5)	7.5 (10.8)	7.3 (9.9)
Household Goods and Services	11.3 (15.5)	21.3 (26.5)	16.0 (19.5)	10.0 (16.7)	18.8 (27.2)	16.4 (22.2)
Health	2.0 (2.8)	2.0 (2.5)	3.5 (4.3)	1.5 (2.5)	1.4 (2.1)	3.5 (4.8)
Transport	10.7 (14.6)	11.3 (14.1)	17.2 (20.9)	10.5 (17.7)	11.7 (16.9)	11.7 (15.9)
Leisure	5.9 (8.1)	6.8 (8.5)	13.7 (16.7)	6.0 (10.1)	6.3 (9.1)	9.8 (13.2)
Personal Care	2.4 (3.3)	3.9 (4.9)	1.7 (2.1)	1.9 (3.1)	3.8 (5.5)	2.4 (3.2)
Total	100.0	100.0	100.0	100.0	100.0	100.0

- Notes: (a) Figures in brackets are percentages of total budget/expenditure excluding housing.
(b) Assumed to be purchasers.
(c) Assumes both partners are working full-time and are purchasers.
(d) Assumed to be an outright owner.
(e) The child is assumed to be a 14-year-old boy.

The high BSU leisure budgets for older households primarily reflects the methodology used to develop the leisure budget itself, in that (as explained in Chapter 10) the high leisure time for this group involves some cost in undertaking a variety of different forms of leisure—even though considerable effort has gone into minimising these impacts.

In general, the remaining budget areas either produce figures that are reasonably close to the HES average expenditures or show no consistent pattern of deviation from them. The energy, clothing and footwear and personal care budgets are all fairly close to the HES averages, while the food budget is somewhat below the HES figure in some cases (e.g. for the older households), but above it in others—particularly for the couple household with four children.

The same general trends emerge from the comparisons of budget shares shown in Table 12.10. Given the limitations of the BSU housing budgets as a point of comparison with the HES data, attention focuses on comparing the budget shares shown in brackets in Table 12.10 which exclude housing.

The main points to emerge from these comparisons are summarised below:

- in general the BSU and HES budget shares for energy are similar, although the BSU figures are a little low for the older female household and for the sole parent with two children;
- the proportion of the BSU budgets allocated to food is similar to the HES figures, although it is a little on the low side for older households and, to a less extent appears low for the single female, the sole parent with one child;²³
- there is a general tendency for the BSU leisure budget to be below the corresponding HES budget shares, particularly for both couples and sole parents with children, although (as noted above) the BSU leisure component for aged households is above the HES figure;
- the BSU budget share devoted to household goods and services is generally below the HES figure (except for the couples with children who incur high child care costs);
- the share of the BSU budget devoted to clothing and footwear is generally slightly above that shown in the HES, the excess increasing further in the case of couples with children;
- the BSU health budget, although small in absolute terms (see above), is generally on the low side (relative to HES) as a proportion of the total budget, while the share of the budget devoted to personal care (also generally low in absolute terms) is on the high side in some cases; and
- finally, as already noted, the BSU transport budgets are below the HES budget shares in most cases, except for the older female where the transport allocation in the BSU budget is high.

It is important to emphasise that there are several important qualifications to the comparisons presented in Tables 12.9 and 12.10, mainly as a result of the fact that the HES data include households that are only similar to the BSU household types in the most general way (as explained earlier and summarised in Table 12.5).

These limitations are, however, very difficult to overcome without dramatically reducing the HES sample size and as a consequence making the HES estimates subject to greatly increased standard errors. The methodology developed in this section are best regarded as the outcome of an attempt to reach a compromise between maximising sample size whilst maintaining the highest degree of consistency between the HES data and the BSU estimates.

In addition to providing further insight into the validity of the BSU budget standards, the comparisons in Tables 12.9 and 12.10 also provide some guidance to areas where household expenditures fail to meet the BSU norms. In addition, the estimates can be readily manipulated

²³

It should be emphasised that some of the comparisons shown in Table 12.10 are made difficult by the variations in the age of the children which have a marked effect on the BSU food budgets, as shown in Chapter 5, but these are averaged out in the HES figures.

to explore the impact on the budget standards of removing (or reducing) costs in some of the main budget areas.²⁴

12.4 Sensitivity Analysis

Introduction

Reference has been made at several points already to the need for some kind of sensitivity analysis to be conducted on the budget standards once they have been derived. Given the enormous number of assumptions that are required to generate the budgets, sensitivity analysis serves to remind users of this fact and to alert them to how robust the budgets are to changes in some of the assumptions that underlie them.

It would, however, be impractical to undertake a sensitivity analysis for each and every item included in each budget for every household type—although the BSU spreadsheets that have been developed as part of the research will, in principle, make this possible for users over the longer-term.

There are some aspects of the sensitivity issue that are reflected in the way that the budgets themselves have been developed. Account has already been taken of variations in several dimensions of household structure, including size and composition, age and gender, labour force status and housing tenure.

The effects of changing housing tenure have been explored in even greater detail, with housing costs being allowed to vary according to the location of renters and purchasers and the BSU housing budgets can accommodate further changes in the circumstances of those purchasing their home on a mortgage.

In addition, aspects of the customisation of the budgets (see Chapter 15) also allows the degree of sensitivity of the budgets to changes in household circumstances to be assessed in general terms. Included in Chapter 15, is the extent to which the budgets need to be modified to make them more applicable to the circumstances of households not included among those household types shown in Table 2.1, as well as a discussion of what will be required to adjust the budgets over time as prices and other factors change.

The aim of this section of the Report is not to duplicate the analyses that have already been done, but rather to focus exclusively on one particular aspect of the sensitivity issue. This relates to the way that *durable goods* are treated when developing a budget standard. It was noted earlier that there are important issues relating to the role of budget standards in informing decisions on the adequacy of income support payments that have implications for whether or not durable goods should be included in the household budgets.

It is argued here that durable goods should be included in the budget standards, for the simple fact that these are necessary for the household to be able to achieve the standard of living to which the standards apply. However, the treatment of the cost of durables in budget standards (which involves amortising their purchase price over an assumed lifetime) implies that once these goods have been purchased, part of the budget represents a cost that has already been incurred.

²⁴ Section 12.4 provides an example of how the sensitivity of the budget standards to changes in one aspect of their development can be assessed.

Given that, in practice, income support is often provided to established households who already have their full complement of durables, questions arise over whether the inclusion of the costs of durables should be reflected in decisions taken over the adequacy of income support.

Two possible arguments can be advanced for why the cost of durables should not be incorporated into a budget standard, in a context where that standard is used as a benchmark for assessing the adequacy of income support payments. The first rests on the view that a budget standard should (as a normative principle) not provide for the replacement of durable goods over the medium- to longer-term.

The second position is that a budget standard should apply only in the short-term, and thus does not need to include any allowance for the cost of durables because once these have been bought, they provide a stream of services to the households who own them without them having to incur any expenditure in that period.

The conventional budget standards methodology regards durables as a legitimate component of household budgets over the medium-term and beyond and thus is at odds with the normative principle underlying the former position. In relation to the latter, however, there is a legitimate debate to be had concerning the appropriate time period over which the adequacy of income support payments should be assessed and what implications this has on the treatment of durable good costs in the development of a budget standard.²⁵

Because this latter issue has relevance not only for how a budget standard is derived, but also for what role it should play in informing decisions about the adequacy of social benefits, it is useful to place some limits on how sensitive the budget standards are to variation in the way that durables are treated in their construction.

However, it is important to emphasise that the fact that this analysis is being undertaken in no way implies that the BSU is of the view that durable goods should be excluded from a budget standard. If this position had been accepted as legitimate, the BSU standards would not include an allowance for the cost of buying durables. The fact that these costs are included in the budgets reflects the view that the services provided by the ownership of durables are an important contributor to the standard of living of the household, and that the cost of buying these durables is thus a legitimate component of the budget standard.

From a broader policy perspective, as noted above, the role of consumer durables in the development of a budget standard is an issue that can only be assessed by considering what the income support system is trying to achieve in terms of adequacy. This involves focusing on the *duration* over which adequacy is defined as a goal of policy and what mechanisms are available to meet both short-run and longer-term needs.

The sensitivity analysis reported below is intended to inform that debate, not to suggest that there are valid grounds for omitting durable goods from the budget standards that are presented elsewhere in the Report. Above all, the analysis serves to illustrate the very useful role that budget standards research can play in highlighting these kinds of adequacy issues and providing a conceptual and data framework for analysing them.

²⁵ This issue, which emerged during the course of the research, provides a vivid illustration of the value of the budget standards methodology in providing a framework for analysing what adequacy means in relation to the broader question of living standards.

Defining Durable Goods

The defining feature of all durable goods is that they provide a stream of services over time which are of benefit to those who own them. The list of durable items thus includes all of the common consumer durables such as a washing machine, refrigerator and television set which form part of the household goods and services budget, but also many items of clothing and goods included in the leisure budget (e.g. camping and sporting equipment), the transport budget (e.g. motor vehicle accessories), as well as aspects of the health (e.g. spectacles and dentures) and personal care (e.g. jewellery) budgets.

The key feature of all of these items in the budget standards context is that their initial purchase price is amortised over an assumed lifetime rather than entering directly into the household budgets in the period that the item is purchased.

What matters for whether a good is defined as a durable or not is thus determined by the length of its assumed lifetime, rather than by any physical features of the item itself or the needs that it satisfies. Although the boundary between durable and non-durable items is, as a result, somewhat imprecise, the definition adopted here is that *durable goods are defined to include all items with an assumed lifetime of one year or more.*²⁶

The two main exceptions to this treatment of durable goods in the BSU research are housing and motor vehicles. In both instances, the cost included in the BSU housing and transport budgets, respectively, has not been derived by amortising an initial purchase price over an assumed lifetime. The reasons for adopting a different approach in these two instances are presented in Chapters 3 and 9, respectively, and will not be repeated here.

It was also decided not to include as durables those services which are sometimes purchased annually and thus fit with the above definition of durables. Included here are items such as insurance on the home and its contents as well as housing-related expenditures such as local government council rates. In fact, consumers are often given the choice to pay these bills on a quarterly basis even though the amounts themselves are generally assessed annually. To the extent that such options are taken up, the case for treating these items as durable goods is further weakened.

In order to give an initial indication of the magnitude of issues involved in the treatment of durable goods in the development of budget standards, Table 12.11 provides information on the number of separate commodities incorporated into each component budget and the number that satisfy the one-year or more lifetime definition of durables (subject to the exclusions mentioned above).²⁷

Because the composition of the BSU budget standards varies with the characteristics of the household, results are presented for one household type only (the one-child couple, renting privately, at the low cost standard). The results in Table 12.11 are thus only illustrative of the broader picture, although they are representative of many households at the low cost standard.

²⁶ The same approach to defining durable goods has been proposed by the ABS in its new framework household for income, consumption, saving and wealth (ABS, 1995). The ABS framework itself is discussed in Appendix 1.A, which also considers how it relates to the budget standards framework.

²⁷ For the purpose of Table 12.11, a commodity is defined to include only once those items that actually enter into the budget standards in multiples at the point of purchase. Thus, for example, although the individuals in many BSU households possess several pairs of jeans, these are counted as only a single commodity in constructing Table 12.11.

Table 12.11: The Number of Durable Commodities by Component Budget Area: Household Consisting of an Unemployed Male (40), Unemployed Female (35) and Six-Year-old Daughter, Renting Privately (Low Cost Standard)

Budget Area	Total Number of Commodities	Number of Commodities with a Lifetime of One Year or More	Durables as a Percentage of All Commodities
Current Housing Costs ^(a)	*	*	*
Energy	-	0	0.0
Food	-	0	0.0
Clothing and Footwear	177	150	84.8
Household Goods and Services	276	222	80.4
Health Care	20	9	45.0
Transport ^(a)	30	16	53.3
Leisure and Recreation	63	56	88.9
Personal Care	57	40	70.2
Total Budget	623	493	79.1

Note: (a) Current housing costs and motor vehicle costs are treated differently from the other items, as explained in the main text.

It can be seen that although there are some budget areas where durables play no role whatever (e.g. the food budget), durable goods are an important proportion of the coverage of other budgets, most notably the household goods and services and transport budgets, but also the clothing and footwear and leisure budgets.

Overall, the low cost budget standard for the one-child couple shown in Table 12.11 contains 623 separate items, of which three-quarters have a lifetime of a year or more. Food and energy are the only budget areas where there are no durable items (in addition to housing which, as explained earlier is treated differently from the other budget areas).²⁸

The two budget areas where the number of durables are most important are clothing and footwear and household goods and services, with leisure and personal care coming next, though a long way behind. However, as will be demonstrated later, the percentage of *items* in each budget area that conform to the definition of durables being used here does not indicate the percentage of the total *expenditure* on durables in those areas.

The personal care budget, for example, contains many items with an assumed lifetime of one year or more, but most of these involve very small amounts of expenditure and thus contribute a much lower proportion of expenditure in that budget area.

Sensitivity Analysis: Rationale

The main rationale for exploring the sensitivity of budget standards to the treatment of durable goods can be explained in terms of two separate issues. The first of these relates to the

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It should be noted that the total of 623 commodities recorded in Table 12.11 is subject to the way commodities have been defined (as explained in the previous footnote) and excludes all items which form part of the food and energy budgets.

uncertainty surrounding the choice of the lifetime for each good. As explained, the starting point for the selection of lifetimes were those used in the recent UK research on budget standards which in turn drew upon previous research conducted in Sweden, Canada and elsewhere.

Even given that these lifetimes have been modified in many instances to better suit Australian conditions, it is still the case that the resulting lifetimes can be criticised for being somewhat arbitrary. In the light of this, there is a good deal of sense in exploring the sensitivity of the overall budgets to variation in the assumed lifetimes on which they are based.

The second reason for conducting sensitivity analysis focuses specifically on the role of budget standards in informing decisions regarding the adequacy of income support benefits. Fundamental to this issue is the time period over which adequacy is to be assessed, and the specific argument that there are grounds for mounting a distinction between the budget required to *sustain* a certain standard of living over the medium term and a '*short-term budget standard*' which effectively excludes the costs associated with ownership of durables once these have been purchased.

The concept of a short-term budget standard (rationalised on the above grounds) has been developed by the Center for Alternativ Samfundsanalyse (Centre for Alternative Social Research, 1993, pp. 29-36) that has constructed a set of budget standards for Denmark.

The Centre explains the concept of the short-term budget as follows:

*A short-term budget standard shows the expenses incurred for ordinary consumption with the exclusion of expenses for infrequently occurring expenses on durables. This means that the saving included in the long-term budget standard for the maintenance of durables is excluded from the short-term budget...because no savings have been made for the maintenance or replacement of durables with a lifetime over two years, each household can maintain a reasonable level of consumption in the short-term, but not in the long-term.' (Center for Alternativ Samsfundanalyse, 1993, p. 31; translation from the original provided by Hans Baekgaard.)

This statement provides a clear and concise explanation of the rationale for deriving the short-term budget as well as outlining the limitations that apply to the results.

A key feature of the Danish short-term budgets is that durables are defined to include only those items with an assumed lifetime of more than *two years*, a more restrictive definition than the one-year lifetime used here.

Table 12.12 compares the Danish standard budgets for a range of single-adult and couple households with the corresponding short-term budgets, derived by excluding all durables with an assumed lifetime of more than two years. In general, the short-term budgets are between 15 per cent and 20 per cent below the standard budgets, with the difference larger for couples than for single-adult households, and increasing slightly with the number of children in the household.

These differences are sufficiently great to suggest that the treatment of durable goods is of practical importance—sufficiently so as to justify some further exploration of the issues using the BSU budget standards.

Table 12.12: Estimates of the Standard and Short-Term Budgets for Denmark (Danish Kr. Per month in March 1993)

Household Type	Standard Budget	Short-Term Budget	Ratio
Single female— 18-29	5,540	4,710	0.85
Single female— 30-49	5,290	4,460	0.84
Single male— 30-49	5,710	4,840	0.85
Single male— 50-66	5,400	4,540	0.84
Female sole parent — child 3-6	8,050	7,070	0.88
Female sole parent — child 11-14	7,410	6,370	0.86
Couple— both 30-49	10,820	8,490	0.78
Couple— 30-49 with child 3-6	13,230	10,720	0.81
Couple— 30-49 with child 11-14	13,100	10,520	0.80
Couple — 30-49 with children under I & 3-6	14,450	11,610	0.80
Couple— 30-49 with children 3-6 & 11-14	15,530	12,760	0.82
Couple — 30-49 with children under 1, 3-6 & 11-14	17,310	13,850	0.80

Source: Center for Alternativ Samfundsanalyse, 1993, Tables 6.1, 6.2, 6.3 and 6.4.

In the limit, when the lifetime of durable goods is extended indefinitely, the purchase price is averaged over an infinite lifetime, giving a value of zero for durable goods in the calculation of a budget standard. The exclusion of durables from budget standards is thus practically equivalent to assuming that *those durables that the household has already acquired have an infinite lifetime*.²⁹

The assumption that durable goods have an infinite lifetime can therefore be interpreted as providing a lower limit to the budget standard, in contrast to the standard budget which is based on an informed estimate of what the most plausible lifetime is. The crucial point is, however, that the lower limit can only be maintained in the short run; as time passes, a budget that excludes durables would involve an ever-decreasing standard of living, even for households who initially own a full complement of consumer durables.

Behavioural Evidence on the Purchase of Durable Items

Of relevance to the question of whether or not to exclude durable goods from a budget standard, particularly when it is used to provide an indicator of short-term adequacy, is the fact that some people in receipt of income support do not replace their durable items when they wear out.

Bradshaw and Holmes (1989), for example, found in their study of the actual expenditure of low income households that even where their ownership of consumer durables was close to the average for all households, 'the condition of many items was poor and replacement of necessities for families such as cookers and washing machines was a major problem' (quoted in Yu, 1993, p.214).

²⁹ Although in *practical* terms the exclusion of durable goods can be regarded as equivalent to assigning an infinite lifetime to them, there still remains the *conceptual* issues surrounding the time period for which a budget standard is intended to apply and what this implies for the treatment of the cost of durable goods.

However, the fact that low income households do not replace durable items does not mean that the costs of durables should be excluded when constructing a low cost budget standard. As Yu points out, the aim of developing a budget standard is 'to reflect not what is possible on income support but what is necessary to maintain a low cost standard of living' (Yu, 1993, p. 214).

Reflecting this, the low cost budgets derived by Yu for a two-adult, two-child family show proportionately greater expenditures in the areas of clothing and household goods and services than the actual expenditure patterns of similar low income households reported by Bradshaw and Holmes (Yu, 1993, Table 13.9).

To what extent does the available evidence confirm the view that Australian households in receipt of income support payments, particularly those anticipated to last for relatively short durations, defer the replacement of durables by extending their useable lifetime? This issue is explored with the assistance of data from the 1993-94 HES where recall periods of between three months and one year are used to provide a better estimate of expenditures on those items that are purchased infrequently.

Before considering how these results vary for different households and the reasons for such variation, a few words of caution are in order. The first point to note is that there are many factors that influence decisions made with regard to the purchase of consumer durables, particularly the more expensive items. In addition to the current and prospective income status of the household, several other factors play a vital role in decisions made regarding the purchase of durables.

One would expect such factors to include the age of household members, whether or not there are children in the household and, if so, how many and of what age. In addition, households who are going through a period of upheaval or transition can be expected to have different durable expenditures as a consequence.

Thus, younger couple households without children may spend more on durables as they furnish their home for the first time, while unemployment will almost certainly cause some (possibly all) planned consumer durable purchases to be delayed.

Couples may choose to replace or extend their ownership of durables at key points in their life cycle, on getting married, or starting (or planning) their family, when their children leave home, or when they themselves retire. Technological change which causes new goods to become cheaper and/or more readily available (e.g. home computers and mobile phones) will also exert an influence on the timing of purchasing decisions. In summary, household purchases of durables will be influenced by life cycle factors, as well as by shorter-term, sometimes cyclical, events.

In addition to all of these considerations, there is the fact that the percentage of households spending a positive amount on a particular durable over a specific time period reflects two separate factors. The first is the degree of ownership of that item in the community as a whole, and the second is its average lifetime. The fact that only a small proportion of the population record a positive expenditure on clothes driers over a three-month period could mean either that very few households own a clothes drier or that ownership of clothes driers is common, but that driers have a long lifetime.

Finally, there is the important fact that the HES data on durable expenditures refer to recall periods ranging from three to 12 months, while the HES income data refer mainly to (weekly)

income at the time of the HES interview. To the extent that some people's income sources will have changed over the expenditure recall periods, some errors will be induced when comparing the *current* income status with recorded durable expenditures over *previous* periods.

These factors suggest that considerable caution should be applied when interpreting the estimates of durable goods purchase frequencies presented below. They also suggest that the meaning attached to the absolute percentage of a particular household type purchasing a durable item over a given period will be open to a variety of interpretations.

As a consequence of this, attention focuses not on the absolute figures for a *given household*, but on how the incidence of durable expenditures differ between *different households*. Such comparisons are in any case of relevance to the issue of assessing the extent to which households who have temporary low incomes adjust their purchases of durables relative to households with more secure, and higher incomes.

Table 12.13 presents estimates derived from the 1993-94 HES curf on the relationship between the incidence of durable purchases and the principal source of income of the household. No attempt has been made to standardise the data for other differences, although some of these (e.g. age) are related to the income source categories. Households with wages and salaries as their principal source are assumed to provide a benchmark against which the patterns for other households can be compared.³⁰

These estimates provide some evidence to support the proposition that households primarily reliant on transfer incomes for what might be expected to be for relatively short durations are less likely to replace durable items than those with higher and/or more secure incomes. There is a general tendency for households with wages and salaries as their principal source of income to purchase durables more frequently than other households, although the pattern is by no means consistent across all categories.

However, there are also a number of exceptions to this genera! rule, including in relation to the purchase of some furniture items, as well as some of the main consumer durables such as fridges, freezers and television sets.

Within those households reliant on transfers, there is no clear tendency for those on benefits that might be expected to be for shorter durations (e.g. NSA/JSA, sickness benefit or supporting parents' benefit) to be less likely to buy durables than those whose transfer incomes are likely to last for longer periods (e.g. the main pension categories).

Again, however, it has to be emphasised that there are a number of other factors that are likely to influence decisions regarding the purchase of durables that may distort the comparisons presented in Table 12.13. One factor not mentioned to date is that those on transfer incomes will also tend to have lower incomes than wage and salary earners and are thus likely to buy cheaper durables when they buy them.

To the extent that these cheaper goods do not last as well as more expensive items, they will need to be replaced more often than those better and longer-lasting products bought by households on higher and more stable incomes.

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The HES estimates in Table 12.13 refer to single income unit households only.

Table 12.13: Percentage of Households Buying Selected Durable Items by Principal Source of Household Income^(a)

Durable item	Principal source of household income:						
	Wages & salaries	Superannuation	Pensions (age, disability or wife's)	Supporting parents' benefit	NSA/JSA	Sickness benefit	Veterans' Affairs pension
Kitchen furniture	3.53	2.10	2.38	4.14	3.53	-	0.97
Bedroom furniture	10.75	2.84	3.35	12.80	14.98	-	3.77
Lounge/dining furniture	9.30	5.43	3.79	6.46	5.50	6.50	2.64
Outdoor/garden furniture	5.01	3.19	2.45	3.07	3.43	3.43	4.06
Other furniture	4.73	1.42	1.13	5.55	2.01	4.73	2.01
Carpets	2.47	2.08	1.10	2.20	1.66	-	1.71
Stoves, ovens etc.	3.13	1.73	0.86	0.72	2.14	-	1.53
Fridges and freezers	4.79	3.19	2.36	5.44	7.05	4.52	2.83
Washing machines	4.88	2.10	2.46	1.89	5.07	-	3.10
Airconditioners	1.27	0.96	0.73	0.81	0.65	-	1.62
Dishwashers	0.84	0.69	-	-	-	-	-
Clothes driers	1.35	0.66	0.27	-	0.74	-	-
Televisions	5.75	4.74	2.29	7.91	6.70	-	1.31
Radio/stereo/hi-fi etc.	8.97	3.22	3.33	7.48	6.87	9.33	4.50
VCR equipment	3.35	3.48	0.87	2.15	3.21	1.12	0.53
Home computer equipment	4.96	0.48	0.91	2.51	1.73	0.41	1.68
Photographic equipment	1.07	0.51	0.34	0.58	0.33	-	0.52
Musical instruments etc.	1.15	0.78	-	1.29	0.31	-	0.53
Camping equipment	1.02	0.51	0.25	0.62	2.23	-	0.39
Watches and clocks	2.42	0.51	1.33	0.98	2.86	-	-

Note: (a) Single income unit household only.

Source: 1993-94 Household Expenditure Survey; confidentialised unit record file.

In conclusion, the estimates in Table 12.13 provide some support for the view that those reliant on government transfer incomes purchase durables somewhat less often than those in regular paid work, but the pattern is by no means clear-cut.

In the light of the many other factors that influence decisions regarding major expenditure purchases, the estimates reported here are best regarded as pointing to the need for further research into this aspect of household expenditure behaviour before reaching any firm conclusions.

There is certainly no strong basis for asserting that households dependent on transfer incomes for short periods defer their expenditures on durables entirely. Thus, even if it were accepted that such behaviour *should* be incorporated in some way into a budget standard, the evidence does not suggest that excluding durable items entirely from household budgets would in any way be consistent with the actual expenditure patterns of those dependent on government transfers as their primary source of income.

Sensitivity Analysis of Budget Standards: Results

In order to explore the sensitivity issue systematically, a selection of the BSU budget standards have been re-calculated after extending the lifetimes of all durable items, first by 50 per cent, then by 100 per cent (i.e. doubling the assumed lifetime) and finally by excluding durables all together (i.e. by assigning an infinite lifetime to each of durable good).

To undertake this sensitivity analysis for each of the 46 separate BSU household types for which a low cost or modest but adequate budget standard has been developed would be an enormous task. It is also not necessary to go into this degree of detail in order to derive an indication of the magnitude of this aspect of the sensitivity issue. A more targeted approach has thus been adopted.

The approach involves varying the assumed durable lifetimes over the range mentioned above for only the following four household types:

- a married couple with no children (private renter);
- a married couple with a six-year-old daughter (private renter);
- a sole parent with a six-year-old daughter (private renter); and
- an aged couple (outright owner).

The analysis has only been undertaken at the low cost standard for each household, which has implications for the assumed labour force status of the adults in each household, the details of which are spelt out in Table 2. 1.

The results in Table 12. 14 summarise how the total budgets of the four household types vary as the assumed lifetimes of all durable goods are changed from the benchmark lifetimes on which the BSU budget standards have been developed to the three alternative lifetimes described above.

Table 12.14: Sensitivity of the Overall Low Cost Budget Standards to Variations in the Assumed Lifetime of Durable Goods (\$ per week)^(a)

Household Type ^(b)	Low Cost Budget Standard (\$)	Expenditure on Durables (\$)	Durable Expenditure as a Percentage of Total Budget (%)	Durable Lifetimes Increased by 50 per cent	Durable Lifetimes Increased by 100 per cent	Durables Excluded Entirely
Couple, no children	\$381.63 (1.291)	\$61.63	16.1	\$361.09 (1.322)	\$350.82 (1.340)	\$320.00 (1.403)
Couple, 6-year-old girl	\$482.71 (1.633)	\$81.18	16.8	\$455.65 (1.668)	\$442.12 (1.688)	\$401.53 (1.760)
Sole parent, 6-year-old girl	\$371.84 (1.258)	\$57.70	15.5	\$352.61 (1.291)	\$342.99 (1.310)	\$314.14 (1.310)
Aged couple	\$295.64 (1.000)	\$67.50	22.8	\$273.14 (1.000)	\$261.89 (1.000)	\$228.14 (1.000)

Notes: (a) Figures in brackets refer to the budget standard relativities, with the aged couple as the reference household. Estimates have been rounded to the nearest 10 cents.
(b) Further details of household characteristics are provided in the main text.

The results presented in Table 12. 14 show that for the four household types considered, the percentage of the total budget accounted for by expenditure on durable items varies from between 15.5 per cent and 22.7 per cent of the overall budget. There is a slight tendency for

this percentage to decline as household size increases, a reflection of the economies of scale achievable by greater utilisation of the relatively fixed number and types of durable items.

These results are broadly consistent with those for Denmark presented in Table 12.12, although the impact of the exclusion of durables on the BSU budget standards is somewhat larger because durables are defined more broadly (to include all goods with a lifetime of one year or more, not just items with a lifetime of over two years) in the Australian case.

An additional factor that affects the comparisons between the different households in Table 12.14 is the fact that housing costs, which do not vary as lifetimes are lengthened (as explained earlier), are much lower for the older couple who are assumed to own their home outright compared with those households who are assumed to be renting privately. This has the effect of magnifying the sensitivity of the budget of the older couple relative to those whose housing costs are a much larger element in the overall budget.

If the assumed lifetime of all durable items is doubled (from one to two, or from five to 10 years, for example) the low cost budgets decline by about nine per cent for the first three household types, and by around 12 per cent for the older couple. Thus, around half of the overall reduction in the budgets that results from excluding durable items entirely is achieved by doubling the assumed lifetime of each durable item separately.

It needs to be emphasised, however, that the calculations presented in Table 12.14 are only hypothetical and are designed to illustrate the order of magnitude of the effects of durables on the budget standards. In particular, it should be remembered that the lifetimes originally assumed for each item were not determined independently of the quality assumed for the item, nor as a consequence, of their price.

In addition, some of the assumed lifetimes reflect the feedback and advice provided by the focus groups who commented on the preliminary budgets, as explained elsewhere in this report.

In practice, therefore, while it may be the case that extending the lifetime of durable goods by not replacing them when they wear out may be one strategy for dealing with a lack of adequate resources to maintain a given living standard, the logical implication is that the assumed standard of living will decline progressively as goods become more worn out and less able to serve the functions required of them.

In these circumstances, the idea that an established household will be able to maintain a given standard of living becomes increasingly questionable, particularly when the assumed standard is already set at the low cost level.

The final aspect of the aggregate sensitivity results in Table 12.14 relates to the impact of changing durable Lifetimes on the budget standard relativities between different household types - the equivalence scale issue.³¹ These impacts are indicated by the bracketed figures, which express the budgets for each of the first three households relative to the fourth (the aged couple) household.

These relativities change with the assumed lifetimes of durables. In the case of the first household, for example, (the non-aged couple without children) the budget standards relativity compared with the aged couple increases from 1.285 to 1.338 (or by 4.1 per cent) when all

³¹ This issue is addressed more systematically in Chapter 14.

durable lifetimes are doubled. This results from the fact that durable goods form a different proportion of the budget standards of different households (as indicated in Table 12.14).

In summary, it is clear that the level of a budget standard is sensitive to the lifetimes assigned to durable goods, though to varying degrees for different households. However, the lifetimes used to develop the BSU budget standards represent what the research team regard as the best informed estimates of what the appropriate lifetime of each item is, bearing in mind the result from overseas research, the available Australian evidence and the valuable feedback provided through the BSU focus groups. Any change to these lifetimes would need to be based on new evidence or justified on other (normative) grounds.

Having explored the sensitivity for the overall budgets to changes in durable good lifetimes, estimates are now presented which break the total effects down into the different budget areas. The results of this exercise are reported in Tables 12.15, 12.16, 12.17 and 12.18. Each Table shows the effects on the detailed budgets of all four household types of varying the lifetimes of durables in the same manner as was done in Table 12.14.

For the couple without children (Table 12.15) the largest effects occur in the clothing and footwear, household goods and services and leisure budgets, with the next biggest changes in the transport budget. Taking these four areas together, the effect of doubling the life of all durables is to reduce expenditure by around \$28 a week, this amount increasing further to around \$57 a week if durables are excluded entirely from these components of the budgets.

For the couple with one child (Table 12.16), the same four budget areas contribute most to the overall sensitivity, although here the effects are even larger because of the role of durable expenditures on the cost of the child. In this instance, doubling the assumed lifetimes in these four areas alone causes the low cost budget to fall by around \$37 a week, while excluding durables altogether produces a budget that is around \$73 a week lower.

For the sole parent with one child (Table 12.17), the same four areas contribute most, with a doubling of the durable lifetimes leading to a reduction in the weekly budget of around \$27 and the exclusion of durable expenditures entirely causing a decline in the budget of around \$53 a week.

Finally, in the case of the older couple who own their home outright (Table 12.18), the overall pattern of results and the total size of the effects are similar to those for the sole parent with one child, the corresponding reductions to those presented above being \$22 and \$55 a week, respectively. In this case, however, the reductions in the transport budget are somewhat lower, while those in the leisure budget are higher than for the sole parent household.

In summary, the results presented in this section illustrate that it is possible to produce quite substantial reductions in the low cost budget standards by extending the assumed lifetimes of durable items, or by excluding durables altogether from the budgets. The main effects arise in four areas, clothing and footwear, household goods and services, transport and leisure. The question that has to be asked is what impact the reduced expenditures in these four areas are likely to have on the living standards of households.

It would appear that lower expenditures on clothing and footwear and transport would have an adverse impact on the ability of households to participate in a meaningful way in society by engaging in various forms of social participation. In addition, the reduced expenditure in two other budget areas (household goods and services and leisure) would imply a lower-quality home environment.

Table 12.15: The Effects of Varying The Assumed Lifetimes of Durable Goods on the Low Cost Budget Standard for a Couple Without Children (Renting Privately) (\$ per week rounded to the nearest 10 cents)

Budget Item	Low Cost Budget Standard	Lifetimes Increased by 50 per cent	Lifetimes Increased by 100 percent	Durables Excluded Entirely
Housing(a)	123.70	123.70	123.70	123.70
Energy	9.70	9.70	9.70	9.70
Food	85.80	85.80	85.80	85.80
Clothing and Footwear	31.80	23.40	19.30	6.70
Household Goods and Services	30.60	26.00	23.70	16.90
HealthCare	7.30	6.40	6.00	4.70
Transport	53.00	51.50	50.70	48.30
Leisure	27.60	23.10	20.90	14.30
Personal Care	12.20	11.40	11.00	9.90
Total Budget	381. 60	361. 10	350. 80	319. 40

Note: (a) Housing costs are treated differently from the other items, as explained in the main text.

Table 12.16: The Effects of Varying the Assumed Lifetimes of Durable Goods on the Low Cost Budget Standard for a Couple with a Six-Year-old Girl (Renting Privately) (\$ per week rounded to the nearest 10 cents)

Budget Item	Low Cost Budget Standard	Lifetimes Increased by 50 per cent	Lifetimes Increased by 100 per cent	Durables Excluded Entirely
Housing(a)	155.90	155.90	155.90	155.90
Energy	11.60	11.60	11.60	11.60
Food	110.60	110.60	110.60	110.60
Clothing and Footwear	44.50	33.70	28.30	12.20
Household Goods and Services	38.70	33.00	30.20	21.60
HealthCare	9.40	8.50	8.10	6.70
Transport	61.50	59.70	58.80	56.00
Leisure	37.30	31.20	28.20	19.10
Personal Care	13.30	11.50	10.50	7.80
Total Budget	482. 70	455. 70	442. 20	401. 50

Note: (a) Housing costs are treated differently from the other items, as explained in the main text.

Table 12.17: The Effects of Varying the Assumed Lifetimes of Durable Goods on the Low Cost Budget Standards for a Female Sole Parent with a Six-Year-old Girl (Renting Privately) (\$ per week rounded to the nearest 10 cents)

Budget Item	Low Cost Budget Standard	Lifetimes Increased by 50 per cent	Lifetimes Increased by 100 per cent	Durables Excluded Entirely
Housing ^(a)	155.90	155.90	155.90	155.90
Energy	7.40	7.40	7.40	7.40
Food	63.90	63.90	63.90	63.90
Clothing and Footwear	26.70	19.80	16.40	6.10
Household Goods and Services	32.30	26.90	24.20	16.10
Health Care	5.20	4.80	4.70	4.10
Transport	49.10	47.30	46.30	43.60
Leisure	23.70	20.10	18.20	12.70
Personal Care	7.70	6.60	6.00	4.40
Total Budget	371.90	352.60	343.00	314.20

Note: (a) Housing costs are treated differently from the other items, as explained in the main text.

Table 12.18: The Effects of Varying the Assumed Lifetimes of Durable Goods on the Low Cost Budget Standard for an Aged Couple (Outright Owners) (\$ per week rounded to the nearest 10 cents)

Budget Item	Low Cost Budget Standard	Lifetimes Increased by 50 per cent	Lifetimes Increased by 100 percent	Durables Excluded Entirely
Housing ^(a)	47.50	47.50	47.50	47.50
Energy	9.40	9.40	9.40	9.40
Food	75.80	75.80	75.80	75.80
Clothing and Footwear	21.90	15.80	12.70	3.50
Household Goods and Services	37.10	30.20	26.80	16.40
Health Care	13.10	10.90	9.70	6.30
Transport	39.20	37.60	36.80	34.30
Leisure	41.20	37.60	35.80	30.50
Personal Care	10.40	8.40	7.40	4.40
Total Budget	295.60	273.10	261.90	228.10

Note: (a) Housing costs are treated differently from the other items, as explained in the main text.

On balance, it is doubtful therefore whether such a standard would allow 'full social and economic participation consistent with community standards' to the extent that the BSU low cost budget standard is supposed to provide.

12.5 Comparisons With Other Income and Living Standards Benchmarks

It has been emphasised at several points already that the modest but adequate budget standards have formed the basis from which the low cost budgets have been developed. This suggests that it would be appropriate to compare the modest but adequate budgets with other external indicators first and then undertake a similar set of comparisons for the low cost budgets.

Comparing the Modest but Adequate Standards

Unfortunately, comparisons of the modest but adequate budget standards with other income and living standard benchmarks is restricted by the lack of available measures (aside from the HES data on median household expenditure discussed in Section 12.3). The information that is available has generally been collected for purposes other than the measurement of living standards which limits its relevance to budget standards. Despite this, there is value in exploring the information that is available to see how available measures of median income compare with the modest but adequate budgets.

Table 12.19 summarises information on median earnings in May 1996, updated to February 1997 by earnings movements over the intervening period. Estimates are shown for all employees, full-time employees only and full-time non-managerial employees only, disaggregated by gender. These data refer to individuals and cannot be meaningfully aggregated into couple households, because the combined median earnings of *couples* differs from the sum of the median earnings of male and female *individuals*.

Table 12.19: Indicators of Median Weekly Earnings (\$ per week)

	May 1996 ^(a)	February 1997 ^(b)	
		Median	0.50 median ^(a)
All employees:			
- males	630.00	644.50	322.20
- females	434.20	444.20	222.10
Full-time employees:			
- males	701.30	720.60	360.30
- females	576.80	592.70	296.30
Full-time non-managerial employees:			
- males	671.30	689.80	344.90
- females	568.50	584.10	292.10

Notes: (a) Trend estimates.

(b) Estimates updated to February 1997 by movement in average weekly earnings for all employees or full-time adult employees, as appropriate.

Sources: *Employee Earnings and Hours, Australia. May 1996*, ABS Catalogue No. 6306.0 and *Average Weekly Earnings, States and Australia*, ABS Catalogue No. 6302.0.

In the light of this, the only direct comparison that can be made is that between the median earnings data in Table 12.19 and the modest but adequate budget standard for the single female household (H_1). That budget standard assumes that the woman is in full-time employment (Table 2.1) and thus can be compared with the female median earnings figure shown in Table 12.19.

The updated estimate of median earnings for all female employees is \$592.70, while for non-managerial employees that figure is slightly lower at \$584.10. The modest but adequate budget standard for the single female in full-time work is \$484.40 if she is assumed to be a private renter or \$471.60 if she is purchasing her home (Table 12.2). These comparisons thus suggest that the modest but adequate budget standard for this household type is somewhat on the low side.³²

In order to consider other household types, it is necessary to utilise data that refer explicitly to the combined incomes of household units. The main source of such data comes from the *Survey of Income and Housing Costs* (SIHC) undertaken by ABS and published as measures of income distribution (ABS, 1997). The latest published data are for 1995-96 and although they refer mainly to gross weekly income they do present findings at the income unit level which provide a basis for comparisons with the BSU budget standards.³³

Table 12.20 summarises a selection of median income estimates from the published ABS 1995-96 income distribution statistics, updated to February 1997 by movements in average earnings. Estimates are presented firstly for all income units and then separately for the four broad income unit categories—couples (with and without children), sole parent units and single person units. Within each of these four categories, median income figures are also shown for a range of sub-categories, chosen so as to correspond as closely as possible to the BSU household types.

It is important to note that the income distribution estimates in Table 12.20 are broken down only by single characteristics of the income unit, specifically according to either unit size or age within each of the four broad categories described above.³⁴ It is not possible to further disaggregate the published data according to characteristics such as housing tenure or labour force status, as is the case with the BSU household types.

This will greatly influence the estimates of median income, as can be seen by comparing the aggregate median income estimates for all income units in Table 12.20 across the different housing tenures. The other figures shown in the Table are averaged across all possible housing tenure situations (and, generally across age, gender and labour force status combinations also), which implies that they are not directly comparable with the budget standards that are based on very specific assumptions about these characteristics of the household and its members. The limitations that flow from this need to be kept in mind during the following discussion.

³² It is interesting to note that the low cost budget standard for the single female (renting privately) is equal to \$293.60 (Table 12.3), which is extremely close to the figure of \$296.30, which is equal to half of female full-time median earnings shown in Table 12.19. These figures are not, however, directly comparable because the low cost budgets for the single women assume that she is unemployed (see Table 2.1).

³³ It has already been noted that although the household is the unit of analysis adopted in the BSU research, the actual household types for which a budget standard has been developed contain only a single income unit and so can be directly compared with the ABS data on income units.

³⁴ Age as used in Table 12.20 refers either to the age of the reference person in the income unit, or to the age of the eldest child.

Table 12.20: Comparison Between Estimates of Median Gross Weekly Incomes of Income Units and the BSU Modest but Adequate Budget Standards (\$ per week)

Income Unit Type	Median Income in 1995-96 (\$)	Updated to February 1997 ^(a) (\$)	Closest BSU Household Type	Modest but Adequate Budget Standard (\$)
All income units:	457.00	473.50		
- outright owners	403.00	417.50	-	-
- purchasers	857.00	887.90	-	-
- renters (public)	253.00	262.10	-	-
- renters (private)	454.00	470.30	-	-
Couples with dependent children:				
- all couples	849.00	879.60	-	-
- with 1 child	857.00	887.90	H ₇	653.2 ^(b)
- with 2 children	873.00	904.40	H ₃	817.4 ^(b)
- with 3+ children	807.00	836.10	H ₁₀	977.5 1 ^(b)
- eldest child aged <5	780.00	808.10	H ₉	677.6(b)
- eldest child aged 5-14	816.00	845.40	H ₈	669.2 ^(b)
Couples without dependent children:				
- all couples	580.00	600.90	-	-
- reference person aged <35	1,056.00	1,094.00	H ₂	513.8 ^(b)
- reference person aged 65+	321.00	332.60	H ₆	387.6 ^(c)
Sole parent units:				
- all	352.00	364.70	-	-
- female	341.00	353.30	H ₄	519.8 ^(b)
One person income units				
- all	291.00	301.50	-	-
- aged 35-44	482.00	499.40	H ₁	383.4(b)
- age 65+	184.00	190.60	H ₅	280.1(c)
- male	359.00	371.90	-	-
- female	239.00	247.60	-	-
- employed	458.00	474.50	-	-
- unemployed	148.00	153.30	-	-
- not in the labour force	175.00	181.30	-	-

Notes: (a) Updated by movements in the trend estimates of average weekly total earnings of all employees between 1995-96 (average of figures for August 1995, November 1995, February 1996 and May 1996) and February 1997. (Indexation factor — 1.036.)
 (b) Private renter.
 (c) Outright owner.

Sources: 1995-96 *Income Distribution, Australia*, ABS Catalogue No. 6523.0 and Table 12.2.

In relation to couples with children, the modest but adequate budget standards are generally well below the median incomes as recorded in the SIHC, except for couples with three or more children. However, part of the reason for this rests on the fact that the budget standards in Table 12.20 assume that households are renting privately. Thus, Table 12.20 shows that the median incomes of private renters are well below those of purchasers—this being the most common form of housing tenure among couples with children.³⁵

The modest but adequate budget standards for couples who are purchasing their home are a good deal higher than those private renters (Table 12.2) and as a result are closer to the median incomes. However, as noted in Chapter 3, the uncertainties surrounding the BSU budget standards for purchasers suggest that it would not be wise to attribute too much significance to them (which is why the private renter budgets have been used in much of the earlier discussion).

The remaining comparisons in Table 12.20 show no clear or consistent pattern regarding the relationship between median incomes and the modest but adequate budget standards. (In this sense, they are consistent with the comparisons with median household expenditures described in Section 12.3). An indication of the lack of any clearly discernible trend can be gauged from the fact that the budget standards for the younger childless couple and the sole parent with one child are quite close together, whereas the median income of childless couples under 35 (\$1,094) is more than three times that of female sole parents (\$353).

This latter comparison reinforces the point made earlier that the median observed incomes of different household types reflect the overall economic status of that particular group in the population as a whole. There are many reasons—associated with the stage of the life course and the impact of major life events such as family breakdown, as well as with the impact of public policies which affect different groups in different ways—why the median incomes (and hence, by implication, the standard of living) of different groups differ significantly.

As a consequence, there is little reason to expect the median incomes of different socio-demographic groups to bear any relation to each other. It follows from this that comparison with a set of budget standards which have been explicitly developed to refer to the *same* standard of living for each group, would indeed reveal no consistent pattern. The results in Table 12.20 (like those presented earlier in this chapter) confirm this.

Overall, the results in Tables 12.19 and 12.20 indicate that there are no available measures that are relevant benchmarks for comparison with the modest but adequate budget standards. As in the case of the HES expenditure data analysed in Section 12.3, the median earnings and income data presented here are not appropriate for the task. Indeed, the fact that there do not currently exist any measures corresponding to a modest but adequate standard of living provides one of the rationales for the development of the BSU budgets.

Comparing the Low Cost Standards

This lack of available comparator benchmarks for the modest but adequate standards does not apply to the same extent to the low cost budget standards. Two obvious points of comparison here are with the levels of different social security payments and with the Henderson poverty line. Both sets of comparisons do, however, need to be approached with caution, as neither can be claimed to correspond directly to a low cost budget standard.

³⁵ ABS (1997, Table 10) reports that, among couple income units with dependent children, 48.4 per cent are purchasing their house with a mortgage, while only 14.2 per cent are private renters.

The following discussion focuses on each measure in turn, beginning with the Henderson poverty line.

The Henderson Poverty Line

As a result of the interest shown in the past in the issues of adequacy, researchers have developed benchmarks for assessing the levels of income required to meet basic needs. The most well known of these is the Henderson poverty line which was developed by the Commission of Inquiry into Poverty in the 1970s from the earlier research undertaken by Professor Henderson and his colleagues at the University of Melbourne (Henderson, Harcourt and Harper, 1970).

Although the Henderson poverty line has never received an official endorsement from government, it is widely used for a variety of purposes including to measure the extent and incidence of poverty in Australia (Saunders, 1994) and as an adequacy benchmark against which to compare the levels of social security benefits (Melbourne Institute of Applied Economic and Social Research, 1997).

However, as noted earlier in the Report, the Henderson poverty line has been the subject of extensive criticism over the years, and its relevance to Australian circumstances in the 1990s is very much now under question (King, 1991; Baldwin, 1995; Gruen, 1995).

Despite this, the Henderson poverty line represents an obvious income-adequacy benchmark against which to compare the low cost budget standards. One strong advantage that it has for this purpose is that it is possible to derive estimates of the poverty line both before and after the inclusion of housing costs. This is important in the light of the qualifications that attach to the BSU housing budget described in Section 3.1 (in particular the fact that the budget only strictly applies to one specific LGA in Sydney).

Even so, it has to be emphasised that the basis from which the Henderson poverty line was originally developed and the methods used to update it over time bear no relation to the articulation of a low cost standard of living on which the low cost budget standard has been based. In fact, discussion earlier in this Report has already raised a question of whether the articulation of the BSU low cost budget standard is consistent with the standards which those responsible for formulating the Henderson poverty line had in mind when developing it. Those remarks have an obvious relevance to the discussion which follows.

There are several important differences in the reasoning underlying the low cost budget standard and the Henderson poverty line. One of these relates to their *purpose*—why they were developed and to what uses they have been put. The poverty line was developed with two very specific purposes in mind: to facilitate estimates of the extent and nature of primary (or income) poverty and to provide a basis for determining the adequacy of social security payments (Manning, 1982).

In contrast, the concept of a low cost budget standard has been informed by a broader framework of measurable living standards which makes no explicit reference to income, or to broader conceptions of poverty. The primary purpose of the low cost budget standard is to inform judgements about income adequacy by providing a benchmark which allows low incomes to be judged in terms of the normative standards (and behavioural patterns) that can (and cannot) be afforded with that income.

A second difference between the Henderson poverty line and the low cost budget standard relates to their meaning and legitimacy. The originators of the poverty line believed their approach to be on the conservative side, arguing that the poverty line was; 'so austere as, we believe, to make it unchallengeable. No one can seriously argue that those we define as poor are not so' (Henderson, Harcourt and Harper, 1970, p. 1).

This cannot be claimed of the BSU low cost budget standard. One theme to emerge throughout this Report is that far from being 'unchallengeable', the essence of a budget standard is its role in provoking debate over its meaning and content—a debate that will almost inevitably lead to reassessment and revision. Furthermore, given the articulation of what is involved in actually experiencing a low cost standard (as described in earlier chapters), applying the adjective 'austere' to it is likely to be challenged in some quarters.

To a large extent, these differences in meaning reflect changes in Australian society over the last three decades. Those changes have permeated all aspects of social and economic arrangements and thus affected notions of need and what is now required to attain a particular standard of living. As a result, it should be no surprise to discover differences between a poverty line originally developed to apply to the 1960s and 1970s and the BSU low cost budget standards for the 1990s.

Even so, it is of interest to explore how large the differences between the low cost budgets and the poverty line are and how they vary across different households. This is done in Table 12.21, which compares the BSU low cost budget standards with the Henderson poverty line for the March Quarter of 1997.³⁶ In the light of the limitations to the representativeness of the BSU housing budget estimates, combined with the interest that in any case attaches to comparing the estimates both including and excluding housing costs, both sets of comparisons are presented.

The comparisons in Table 12.21 show that the low cost budget standards are generally above the Henderson poverty line—sometimes markedly so. When the low cost budget standards are compared with the poverty lines (including housing costs) the largest differences occur for single parent households (renting privately) and couple households with children—particularly where at least one adult is not in the labour force.

It was noted earlier in Chapter 2 of this Report that there may be no reason why a low cost budget standard developed for the 1990s should correspond to an updated poverty line that was originally developed over three decades ago. It was also suggested that the low cost standard might better approximate the 20 per cent higher poverty line used to identify both the 'very poor' and the 'rather poor'. In order to assess the validity of this view, the fourth column of Table 12.21 shows the ratio of the low cost budget standards to the (20 per cent) higher poverty line. In many instances, the two measures are quite close together, although there are also some notable exceptions. Overall, however, these comparisons tend to confirm the view presented earlier that the low cost budgets correspond to a standard of living that is above the austere poverty standard represented by the Henderson poverty line.

³⁶

The poverty line estimates in Table 12.21 have been derived from the detailed Henderson relativities, described in Appendix F of the Poverty Commission Report (Commission of Inquiry into Poverty, 1975), using the estimate of \$445.15 a week for household disposable income per head in the March Quarter 1997, published by the Melbourne Institute of Applied Economic and Social Research (MIAESR, 1997). Following the Henderson methodology, it has been assumed that the 'in work' poverty line applies to those who are unemployed.

Table 12.21: Comparison of the Low Cost Budget Standards (LC) and the Henderson Poverty Line (HPL) (\$ per week in February 1997)

Household Type ^(a)	HPL	LC	LC/HPL	LC/1.2. HPL	HPL* (=HPL excluding housing costs)	LC* (=LC excluding housing costs)	LC*/ HPL*
H1c S Pri L	243.90	293.97	1.205	1.004	165.00	170.30	1.032
H2c C Pri L	390.63	381.63	0.977	0.814	305.20	257.90	0.845
H3c C+2 Pri	462.43	602.08	1.302	1.085	361.96	406.10	1.122
H4c S+g6 Pri	267.25	371.84	1.391	1.159	181.82	215.90	1.187
H4d S+g6 Pub	267.25	269.47	1.008	0.840	181.82	223.54	1.229
H5b AS Own	181.62	215.02	1.184	0.987	102.70	168.90	1.645
H5c AS Pub	181.62	193.03	1.063	0.886	102.70	153.77	1.497
H6b AC Own	260.53	295.64	1.135	0.946	175.10	248.10	1.417
H6c AC Pub	260.56	297.55	1.142	0.952	175.10	238.29	1.361
H7cC(UN)+g6Pri	390.53	475.51	1.218	1.015	296.27	319.64	1.079
H7dC(UU)+g6Pri	460.61	482.71	1.048	0.873	366.05	326.84	0.893
H7eC(UU)+g6Pub	460.61	404.27	0.878	0.732	366.05	335.14	0.916
H7h C(FN)+g6 Pri	390.83	487.21	1.247	1.039	296.27	331.34	1.118
H7i C(FU)+g6 Pri	460.61	496.40	1.078	0.898	366.05	340.53	0.930
H8cC+b14Pri	392.46	500.06	1.274	1.062	297.90	344.20	1.155
H9cC+g3Pri	370.28	458.16	1.237	1.031	275.72	302.29	1.096
H10cC+3Pri	511.86	659.29	1.288	1.073	401.65	462.70	1.152
H11cC+4Pri	583.47	731.77	1.254	1.045	464.78	535.20	1.152
H12cS+2Pri	338.85	485.72	1.433	1.194	244.29	289.70	1.186
H12dS+2Pub	338.85	352.27	1.040	0.867	244.29	299.34	1.225

Note: (a) Household types are defined in the Key to Tables 12.2 and 12.3.

The comparisons reveal that the low cost budget standards vary more with the presence of additional children in the household than the Henderson poverty line, and that the variation with the age of the child is more marked in the low cost budgets than is allowed for in the Henderson line.³⁷

It is also the case that the allowance made in the Henderson poverty line for the costs of work (including job search activity by the unemployed) is larger than the costs of employment component of the low cost budget standards. This can be seen by comparing the estimates for the couple with a six-year-old girl (H7) which assign different labour force status to each parent. The marginal impact of the wife moving from being unemployed to not in the labour force is between \$7 and \$9 a week, whereas the corresponding poverty line adjustment is much higher, at around \$70 a week.

Once both measures are revised to exclude housing costs, they move closer together in some, though by no means all, instances. In general, they become closer for private renter households (though there are some notable exceptions to this) but further apart for public renters and outright owners.

³⁷ This is equally true whether the poverty line or the higher cut-off is used as the basis for comparing the low cost standards. For ease of exposition, the remainder of the discussion focuses solely on the poverty line itself.

As a result of this latter impact, the low cost budget standards for older (outright owner) households are now well above their Henderson poverty lines, a reflection of the low housing costs of older people incorporated into the budget standards compared with the corresponding housing cost component of the poverty line.

Social Security Payments

Comparisons between the low cost budget standards and the levels of social security assistance are even more fraught with difficulty than those between the low cost standards and the poverty line. The most important point to draw attention to in this context is the fact that the actual levels of social security assistance have been determined in part historically and reflect factors other than the adequacy of payments (including the desire to maintain incentives to work and to work within the overall budgetary pressures facing government).

Having said this, however, it has to be acknowledged that one of the tests of the value of a budget standard must be how useful it is in providing a benchmark of adequacy for determining an appropriate level of income support payments.

An initial—even if qualified and tentative—assessment of the role of the budget standards in this context should therefore involve comparing them with what successive Australian Governments have determined to be an adequate level of social security assistance, bearing in mind all of the other constraints under which they have had to operate.

These comparisons can lead into a fruitful consideration not only of the adequacy of the existing *levels of assistance* for different households, but also to the relevance of the current *structure of payments* for those in different circumstances. They can also serve to promote discussion of why the observed differences exist and what, if anything, needs to be done about them.

Where there are major differences between payment levels and the low cost budget standards, the reasons for these can be explored through detailed consideration of the standards, designed to highlight which areas of the budget explain the difference. It is through this process of review and revision that the true value of a budget standard can be realised.

Table 12.22 presents comparisons between the low cost budget standards and the levels of social security assistance prevailing in February 1997. An attempt has again been made to allow for the limitations of the budget standards housing cost estimates by undertaking comparisons between the budget standards net of housing costs and the level of social security assistance after deducting the maximum rate of Rent Assistance payable to those in the private rental sector.³⁸

The first set of comparisons in Table 12.22 indicates that the low cost budget standards lie above the level of social security payments, but also that there is a considerable diversity in the extent to which the two measures correspond to each other.

³⁸

It is acknowledged that this to some extent presents a somewhat limited comparison, in light of the fact that Rent Assistance is not intended to cover the full extent of housing costs for renters, but the comparison serves to highlight the limitations of the housing cost component of the low cost budget standards. An alternative method for allowing for housing costs would be to use the minimum level of rent paid to receive Rent Assistance, or to assume that housing costs are equal to some percentage (e.g. 20 per cent) of total benefits (inclusive of Family Payment).

Table 12.22: Comparison of Levels of Social Security Payments (SSP) and the Low Cost Budget Standards (LC) (\$ per week in February 1997)

Household Type ^(a)	SSP	LC	LC/SSP	SSP* ^(b)	LC* ^(c)	LC*/SSP*
H1c S Pri	197.40	293.97	1.489	160.10	170.30	1.064
H2c C Pri	324.10	381.63	1.178	288.90	257.90	0.893
H3c C+2 Pri	450.55	602.08	1.336	407.05	409.86	1.007
H4c S+g6 Pri	290.73	371.84	1.279	247.23	215.90	0.873
H4d S+g6 Pub	247.23	269.47	1.090	na	223.54	na
H5b AS Own	177.08	215.02	1.214	na	168.90	na
H5c AS Pub	177.08	193.03	1.090	na	153.77	na
H6b AC Own	292.78	295.64	1.010	na	248.10	na
H6c AC Pub	292.78	297.55	1.016	na	238.29	na
H7c C(UN)+g6 Pri	384.25	475.51	1.238	340.75	319.64	0.938
H7d C(UU)+g6 Pri	384.25	482.71	1.256	340.75	326.84	0.959
H7e C(UU)+g6 Pub	340.75	404.27	1.186	na	335.14	na
H8cC+b14Pri	398.70	500.06	1.254	355.20	344.20	0.969
H9c C+g3 Pri	393.87	458.16	1.163	350.37	302.29	0.863
H10cC+3Pri	517.72	659.29	1.273	468.52	462.70	0.988
H11cC+4Pri	573.42	731.77	1.276	524.22	535.20	1.021
H12cS+2Pri	342.58	485.72	1.418	299.08	289.70	0.969
H12dS+2Pub	299.08	352.27	1.178	na	299.34	na

Notes: (a) Household types are defined in Tables 12.2 and 12.3.

(b) Social security assistance minus maximum rate of Rent Assistance.

(c) Low cost budgets net of rent component as reported in Table 3.8.

na = not applicable.

In most cases, the budget standards lie between 20 per cent and 25 per cent above social security payments, although the difference is considerably greater than this for the single female and for sole parent families with two children, but also a good deal smaller in some cases, particularly in the case of older households.

Once housing costs (rent) are removed from the budget standards and the maximum rate of Rent Assistance from DSS payments, the two series are very close to each other in the majority of cases—despite the limitations that apply to these comparisons. Aside from the single female household, the net-of-housing-cost comparisons reveal that the low cost budgets are within 10 per cent of the level of DSS payments in all but two cases, often within five per cent.

On the face of it, the degree of similarity between the net-of-rent budget standards and non-Rent Assistance DSS payment levels is remarkable, particularly bearing in mind the differences between the methods used to develop the low cost budget standards and the processes and pressures from which social security benefit levels have emerged. Most important of these is the high *normative* content of the budget standards, as compared with the fact that payment levels are the product of an essentially *political* process.

Even so, the rudimentary way in which these latter comparisons treat housing costs cautions against placing too much reliance on them. The similarity between them can after all, be interpreted to mean (given the differences to emerge from the initial comparison in Table 12.22) that the level of Rent Assistance is far too low given the levels of market rents in the Hurstville area (and many other parts of Sydney).

Whatever precise interpretation is placed on the comparisons, additional issues surround what meaning attaches to them. One obvious implication is that current DSS payment relativities are well out of line with those implicit in the low cost budget standards—an issue taken up in more detail in Chapter 14. Conclusions regarding the appropriateness of the *absolute* (as opposed to *relative*) levels of DSS benefits can only be extremely tentative at this stage.

There are two main reasons for this. The first relates to the fact that the BSU budget standards themselves need further refinement before they are sufficiently robust to act as a basis for setting payment levels. The research reported here represents a significant step in that direction, but has only produced a set of *indicative* budget standards.

A second reason concerns the need for a better understanding of what the differences actually *mean* for the living standards of those households in receipt of DSS payments. Clearly, the fact that the incomes of those solely reliant on DSS benefits is below the low cost budget standards means that these households are not able to achieve the normative and/or behavioural standards on which the budget standards are based.

However, further research is needed to explore the areas where this shortfall is occurring and what its impact is on those experiencing it before any firm conclusions can be drawn. Such research will involve more detailed analysis of the actual spending patterns of DSS households with the low cost budget profiles, along the line of the validation work reported on earlier in this chapter.

It will also involve combining the results to emerge from the *prescriptive* approach to adequacy as represented by the BSU indicative budget standards with the more *descriptive* approach which investigates the living standards of DSS households to assess the extent of their deprivation and why it is occurring (see Travers, 1996).

Finally, it is important to emphasise that the above comparisons between the low cost budget standards and the Henderson poverty line and DSS payment levels are based on the total budget standards as derived (aside from the exclusion of housing costs in some instances). No account has been taken of the possibility, explored in more detail in Section 12.4, that there may be some instances where it may be legitimate to define a *short-term budget standard* which makes no allowance for expenditures on durable goods for which the household can be expected to incur no (or little) cost once they have been acquired.

Although this proposition is controversial, it has already been noted that the concept of a short-term budget standard has received attention in several overseas countries as a basis for determining the adequacy of income support payments over the short-term.

Analysis of the sensitivity of the BSU budget standards for four household types (reported in Section 12.4 and summarised in Table 12.14) suggests that the exclusion of expenditure on all durable goods (defined as items with an assumed lifetime of one year or more) reduces the low cost budget standards by amounts that vary between 15 per cent and 23 per cent.

If the low cost budget standards were reduced by these amounts to reflect the exclusion of the cost of durables, the above comparisons with both the poverty line and levels of DSS benefits would change markedly.

For example, the exclusion of the cost of consumer durables would cause the low cost budget standard for a couple with no children would decline from \$381.60 to \$320.00 (Table 12.14), as compared with the poverty line estimate of \$390.60 (Table 12.21) and the level of DSS

payments of \$324.10 (Table 12.22). For a sole parent with one child (a six-year-old girl), excluding the costs of durables causes the budget standard to decline from \$371.80 to \$314.10, compared with a poverty line of \$267.25 and DSS payments of \$290.73.

The fact that the treatment of consumer durables can thus have such an important bearing on how the low cost budget standards compare with other income benchmarks reinforces the need for further consideration of the BSU research findings before deciding what changes (if any) in the current poverty benchmarks and the adequacy of income support payments are warranted.

APPENDIX 12.A: Detailed Low Cost Budget Standard for a Private Renter Couple with Two Children

The Tables presented in **this** Appendix present the detailed budgets for one of the 46 BSU household types for which a standard has been developed and costed. The standard describes a low cost budget for a couple with two children (a six-year-old girl and a 14-year-old boy) and assumes **that** the husband (aged 40) is unemployed, the wife (aged 35) is not in the labour force and that the household is renting privately.

All monetary figures refer to **weekly** costs, although many of them have actually been derived from the corresponding annual amounts.

Low Cost Housing and Energy Budgets for Couple with Two Children (Renting Privately)

Housing	Cost (\$ per week)	Cost (\$ per year)
Rent for 3-bedroom unit	192.05	10,014
Contents insurance	3.93	205
Total Housing	195. 98	10,219
<hr/>		
Energy		
Electricity (for dwelling with no gas)	13.42	699. 61
Total Energy	13.42	699. 61

Low Cost Food Budget for Couple with Two Children

			Girl aged 6		Boy aged 14		Woman aged 35		Man aged 40	
	Serving unit	Grams per serve	Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)
Cereals										
Boiled rice	1/2 cup	80	1.3	0.11	1.6	0.13	1.9	0.15	1.7	0.14
Bread roll	1/2 roll	30					3.8	1.48	6.7	2.56
Bread sliced	1 slice	30	25.1	1.70	35.8	2.43	26.9	1.83	40.7	2.76
Breakfast cereal	2bix	30	15.1	1.16	16.8	1.29	15.4	1.18	15.5	1.19
Crispbread-cracker	1	20					1.6	0.16	1.7	0.17
Crumpet	1	55	2.4	0.61	1.7	0.43	1.1	0.27	1.0	0.26
Fried rice	1/2 cup	80								
Noodles	1/2 cup	80			0.0	0.01	0.4	0.09	0.3	0.08
Pasta	1/2 cup	80	2.0	0.27	1.4	0.19	1.5	0.20	1.6	0.21
Plain biscuit	2 bisc	30	0.6	0.07	0.6	0.07	1.7	0.20	1.5	0.17
<i>Sub-Total</i>				3.92		4.55		5.57		7.54
Fruit										
Apple	1 small	130	4.0	1.68	8.8	3.70	4.2	1.76	5.1	2.16
Apricot	1	30					1.3	0.12	1.4	0.12
Apricot (dried)	5	30	0.6	0.11						
Banana	1	150	0.7	0.42	1.5	0.92	3.3	1.99	3.7	2.25
Fruit salad-canned	1/2 cup	125					0.7	0.17	0.7	0.16
Grapefruit	1/2 med	100			0.2	0.05				
Grapes	1 bunch	200					0.3	0.11	0.3	0.12
Mandarin	1 med	120	1.1	0.32	2.4	0.71				
Melon	1/2	75					0.6	0.12	0.5	0.10
Nectarine	1 small	60					0.7	0.17	0.5	0.13
Orange	1 med	230	1.3	1.20	3.0	2.65	1.8	1.65	2.2	1.98
Peach	1 med	115	0.4	0.19	0.8	0.42	1.0	0.49	1.6	0.81
Peach-canned	1/2 cup	125					0.9	0.21	1.5	0.36
Pear	1/2 cup	125	0.3	0.05	0.8	0.10				
Pineapple-canned	1/2 cup	125							0.2	0.03
Plum	1 med	100					1.3	0.56	1.1	0.47
Sultanas	handful	20					1.6	0.14	2.0	0.18
Canned peach	1/2 cup	125	0.6	0.14						
Dried apricot	5	30	0.7	0.13						
<i>Sub-Total</i>				4.24		8.56		7.49		8.89
Vegetables										
Asparagus	3 spears	60					0.1	0.06	0.3	0.14
Beans	1/2 cup	60	0.9	0.09	1.9	0.20	1.8	0.18	1.2	0.13
Beetroot	2 slices	30					0.5	0.03	0.6	0.04
Broccoli	1 cluster	45					1.8	0.44	1.4	0.35
Brussel sprout	1 med	120					0.1	0.03	0.4	0.11
Cabbage	1/2 cup	40	1.3	0.06	2.9	0.15	0.9	0.05	1.2	0.06
Capsicum	1/2 cup	60					0.4	0.06	0.3	0.04
Carrot	1 med	140	0.8	0.24	1.7	0.53	1.2	0.36	1.1	0.34
Cauliflower	1/2 cup	100	0.6	0.26	1.3	0.59	0.8	0.37	0.7	0.33
Celery	1 pc	30	0.6	0.05	1.4	0.11	1.6	0.12	1.2	0.09

Food Budget (continued)

	Serving unit	Grams per serve	Girl aged 6		Boy aged 14		Woman aged 35		Man aged 40	
			Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)
Cucumber	4-5 slices	30			2.4	0.22	1.6	0.15	2.2	0.19
Egg plant	2 slices	60					0.6	0.12	0.7	0.14
Lettuce	3 leaves	30	0.6	0.05	1.4	0.12	3.3	0.27	3.4	0.28
Onion	5 rings	50	0.6	0.03	1.3	0.07	2.4	0.13	2.1	0.11
Peas	1/4 cup	35	3.7	0.21	8.3	0.47	3.7	0.21	1.2	0.07
Potato	1 med	150	3.6	0.48	8.1	1.09	3.5	0.46	4.1	0.55
Potato salad	1/2 cup	90					0.2	0.08		
Pumpkin		100	1.0	0.12	2.1	0.26	2.9	0.35	2.7	0.33
Spinach	1/2 cup	100	0.1	0.02	0.2	0.04	0.3	0.06	0.4	0.07
Sweet corn	1/2 cup	60	0.8	0.07	1.7	0.16	1.1	0.10	0.9	0.09
Tomato	1 med	150	0.3	0.21	0.8	0.47	3.2	1.96	3.4	2.05
Tomato-canned	1/2 cup	125					0.5	0.08	0.8	0.15
Zucchini	1/2 cup	75					1.4	0.65	1.1	0.53
<i>Sub-Total</i>				1.89		4.46		6.37		6.19
Meats										
Baked beans	1/2 cup	150					0.2	0.03	0.3	0.06
Burgerpatty	1 med	50					0.3	0.04	0.3	0.04
Canned fish		100	0.1	0.05			0.3	0.17	0.2	0.09
Egg	1 med	50	1.0	0.20	2.6	0.50	1.7	0.33	1.6	0.32
Fish fried		100			0.5	0.21	0.2	0.10	0.3	0.14
Fish steamed		100					0.5	0.34	0.3	0.22
Ham	2 slices	50	0.6	0.29	1.3	0.65	0.8	0.40	1.1	0.57
Lamb chop	1 chop	100	0.4	0.27	1.4	0.86	0.9	0.54	1.0	0.60
Mince		75	0.5	0.17	0.9	0.35	1.3	0.47	1.2	0.44
Pork chops	1 chop	100	0.1	0.07	0.1	0.15	0.4	0.51	0.5	0.65
Roast chicken		100	0.4	0.22	0.9	0.53	0.8	0.43	0.8	0.43
Roast meat	2 slices	100	0.3	0.16	0.5	0.30	0.5	0.32	0.8	0.50
Schnitzel		100	0.1	0.14	0.2	0.20	0.3	0.27	0.2	0.24
Steak		100	0.5	0.28	1.2	0.68	1.0	0.55	1.4	0.79
Stewing steak		100	0.2	0.11	0.5	0.24	1.0	0.48	1.1	0.52
<i>Sub-Total</i>				2.10		4.97		4.99		5.62
Dairy foods										
Cheese	3cm cube	30	1.6	0.30	6.8	1.28	4.5	0.85	5.4	1.00
Milk	1 glass	200	8.4	1.47	0.9	0.15	9.7	1.69	14.7	2.56
Yoghurt	1 ctn	200	0.4	0.17	2.7	1.26	2.6	1.19	0.7	0.31
<i>Sub-Total</i>				2.56		5.36		3.73		3.87
Other										
Apple juice	1 glass	200	0.6	0.16	0.7					
Bacon	mid rasher	50	1.2	0.48	1.9	0.77	0.5	0.20	1.0	0.39
Beer	can	375							2.3	2.63
Bran	1 tbsp	12					0.6	0.02		
Cake	1 slice	60	1.2	0.69	2.0	1.17	1.2	0.69	0.8	0.48
Canned soup	1 cup	250	0.5	0.14	0.6	0.16	0.2	0.04	0.1	0.02
CC's	1 pkt	50	0.3	0.09	0.6	0.18				
Chips		100	0.8	0.14	1.4	0.23	0.8	0.14	0.6	0.09
Chocolate	1 row	30	1.4	0.29	3.0	0.63	1.4	0.29	1.2	0.24
Chocolate bar	1 bar	60			0.1	0.10			0.4	0.29

Food Budget (continued)

	Serving unit	Grams per serve	Girl aged 6		Boy aged 14		Woman aged 35		Man aged 40	
			Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)	Serves per week	Cost (\$ per week)
Coffee	1 spoon	5			1.2	0.09	4.2	0.30	4.2	0.30
Cafe lane	1 cup	200					1.0	1.60		
Coke	1 can	375			0.6	0.73	0.7	0.16	1.0	0.22
Cordial	1 tbspn	20	2.8	0.05	2.1	0.17				
Cream	1 tbspn	20			0.7	0.03	0.4	0.01	0.7	0.03
Crisps	1 pkt	50	1.0	0.35	1.0	0.10			0.4	0.15
Custard	1/2 cup	125				0.02	0.7	0.11	0.4	0.06
Doughnut	1	70							0.2	0.12
Dressing-polyunsat.	1 tbspn	20					0.7	0.12	0.4	0.06
Fancy biscuit	1 bisc	30			1.9	0.33	0.5	0.08	0.2	0.04
Flour	2 tbspn	25					0.3	0.01	0.3	0.01
Frankfurts	1	40								
Fritz	1 slice	30							0.7	0.04
Fruitdrink	1 glass	200	2.6	1.68	2.1	1.34	0.8	0.19		
Fruitjuice	1 glass	200	2.2	0.60	1.8	0.48	2.7	0.74	2.1	0.57
Fruit pie	1/8 pie	75					0.3	0.08	0.4	0.10
Garlic	pinch	5					1.4	0.08	1.4	0.08
Gravy	1/4 cup	60	0.8	0.13	1.2	0.18	0.4	0.05	0.5	0.07
Hamburgers	1 burger	205	0.0	0.09	0.1	0.18	0.3	0.71	0.3	0.71
Honey	1 tspn	5	7.0	0.12	9.8	0.17	7.0	0.12	8.4	0.14
Ice-cream	1 scoop	50	5.2	0.29	6.6	0.37	1.4	0.08	4.2	0.23
Jam	1 tspn	5					7.0	0.10	7.0	0.10
KFC/supermarket	1 pc	67	0.1	0.03	0.1	0.03			0.3	0.10
Lasagne		150			0.1	0.06	0.4	0.24	0.3	0.15
Lemonade	1 can	375	1.0	0.26	0.6	0.14	0.5	0.12	0.6	0.14
Lollies	1 lolly	8			5.3	0.20	4.4	0.17	3.5	0.13
Low ale beer	1 can	375							0.8	0.86
Margarine	1 tspn	5	21.0	0.29	21.0	0.29	21.0	0.29	21.0	0.29
Mayonnaise	1 tspn	5					2.8	0.03	2.8	0.03
Meat pie	1 pie	175			0.3	0.16	0.2	0.10	0.2	0.10
Mild Curry powder	1 tspn	5					1.4	0.10	1.4	0.10
Milk flav. drink	1 glass	200	2.9	2.15	2.9	2.15				
Milo	1 tspn	5	2.8	0.05	4.2	0.08	4.2	0.08		
Muesli bar	1 bar	35	0.6	0.14	0.6	0.14				
Nuts		30							1.9	0.38
Packet soup	1 cup	200					0.6	0.66	0.5	0.57
Peanut butter	1 tspn	5	2.8	0.07	7.0	0.17	2.8	0.07	7.0	0.17
Pickled onion	1	10							1.4	0.04
Pizza	1/6 pizza	100	0.1	0.03	0.1	0.05	0.4	0.16	0.4	0.14
Raisin bread	1 slice	30					0.5	0.03	0.7	0.05
Salami	2 slices	30							0.7	0.26
Sausage	1	40	1.3	0.17	2.6	0.34	1.8	0.24	2.6	0.34
Sausage rolls	1 small	40	0.5	0.06	0.7	0.08				
Savoury bisc.	4 bisc	30	0.2	0.04	0.5	0.08			0.5	0.08

Food Budget (continued)

	Serving unit	Grams per serve	Girl aged 6		Boy aged 14		Woman aged 35		Man aged 40	
			Serves per week	Cost (\$per week)						
Seafood	1 cup	100							0.1	0.28
Spring rolls	1 roll	170		0.1	0.10					
Stir-fry veg.		100				0.4	0.05	0.3	0.04	
Sugar	1 tspn	5	11.2	0.05	22.4	0.11	14.0	0.07	19.6	0.09
Tea	It-bag	0.5			1.9	0.01	8.2	0.05	7.8	0.05
Tomato paste	1 tspn	5				1.4	0.02			
Tomato sauces	1 tspn	5	5.6	0.06	8.4	0.09	2.8	0.03	4.2	0.04
Vegemite	1 tspn	5	2.8	0.16	2.8	0.16	1.4	0.08	1.4	0.08
Vegetable oil	1 tspn	5	1.4	0.02	7.0	0.08	7.0	0.08	7.0	0.08
Water	1 cup	250	42.0		42.0		42.0		42.0	
Wine	1 glass	120				1.4	0.42	2.0	0.61	
<i>Sub-Total</i>			8.94		12.10		9.04		12.43	
Total			23.65		40.01		37.18		44.53	
add 5% for wastage			24.83		42.01		39.04		46.76	
Total Food (\$)			152.64							

Low Cost Clothing and Footwear Budget for Couple with Two Children

				Price (\$)	Quantity	Lifetime (years)	Yearly Cost (\$)	Weekly Cost (\$)
Woman Aged 35 (not in workforce)								
Outerwear								
parka	3/4 length, zippered front, pockets lining, hood,	polyester cotton cotton lining	Target	39.00	1	6.0	6.50	0.12
rain jacket	3/4 length, hood, pockets, buttoned front	plastic	Target	12.00	1	8.0	1.50	0.03
winter slacks	fitted waist, pockets, straight leg	polyester	Target	20.00	3	5.0	12.00	0.23
jeans	fitted waist, pockets	denim	Target	29.00	3	1.5	58.00	1.11
winter skirt	fitted waist, pleated	polyester viscose	Target	32.00	1	5.0	6.40	0.12
winter skirt	fitted waist, straight	acrylic knit	Target	32.00	1	4.0	8.00	0.15
winter jumper, warm	long sleeve crew neck	angora blend	Target	59.00	1	5.0	11.80	0.23
winter jumper, light	long sleeve, short front zip	acrylic	Target	39.00	1	4.0	9.75	0.19
winter cardigan	crew neck, buttoned front	angora blend	Target	59.00	1	5.0	11.80	0.23
skivvy	long sleeve roll neck	cotton	Target	10.00	4	5.0	8.00	0.15
long sleeve blouse	long sleeves, collar, buttoned front	winter weight cotton/poly	Target					
tracksuit bottoms	elasticised waist and hemms,	poly/cotton	Target	14.00	3	1.5	28.00	0.54
tracksuit tops	sweatshirt style, long slv.	poly/cotton	Target	14.00	3	1.5	28.00	0.54
smart suit	long sleeve, classic style, no collar, long line jacket, straight skirt	polyester/viscose	Target	78.00	1	6.0	13.00	0.25
special occasion dress	short slv, round neck, waisted/belt	viscose	Target	55.00	1	6.0	9.17	0.18
smart blouse	long slv, round neck, padded shoulder	polyester	Target	35.00	1	6.0	5.83	0.11
waistcoat/vest	patterned front, plain back, 3 buttons	polyester	Target	29.00	1	7.0	4.14	0.08
summer jacket	lightweight, short sleeve, rever collar	poly/cotton	Target	49.00	1	5.0	9.80	0.19
sun dress	sleeveless, knee length	cotton	Target	32.00	1	6.0	5.33	0.10
summer dress, casual	short sleeves, fitted top, flared skirt	cotton knit	Target	20.00	1	5.0	4.00	0.08
summer dress, smart	shrt slv, high waist, gathered skirt	cotton	Target	39.00	1	5.0	7.80	0.15
summer skirt	full, elasticised waist	poly/cotton	Target	30.00	1	5.0	6.00	0.12
summer skirt	straight, unlined, fitted	poly/viscose	Target	26.00	1	5.0	5.20	0.10
summer slacks, smart	fitted waist, straight leg	poly/viscose	Target	39.00	1	6.0	6.50	0.12
summer slacks, casual	part fitted/part elasticised waist	polyester	Target	29.00	2	4.0	14.50	0.28
shorts, smart	fitted waist, zippered front, pockets	poly/viscose	Target	20.00	2	4.0	10.00	0.19
shorts, casual	elasticised waist, pockets	cotton knit	Target	14.00	2	1.5	18.67	0.36
summer sweater	long sleeve, crew neck	acrylic	Target	24.00	1	5.0	4.80	0.09

Clothing and Footwear Budget (continued)

					Price	Quantity	Lifetime (years)	Yearly Cost	Weekly Cost
summer sweater	short sleeve, crew neck	cotton/acrylic	Target	22.00	1	4.0	5.50	0.11	
summer cardigan	v-neck, buttoned front, long sleeve	cotton/acrylic	Kmart	29.00	1	4.0	7.25	0.14	
summer blouse	short sleeve, buttoned front, collar	cotton	Target	29.00	1	7.0	4.14	0.08	
smart summer blouse	sh. slv, round neck, padded shoulders	polyester	Target	39.00	1	6.0	6.50	0.12	
t-shirt	short sleeve, crew neck	cotton	Target	8.00	2	1.5	10.67	0.20	
tank top	sleeveless, ribbed, scoop neck	cotton	Target	10.00	1	3.0	3.33	0.06	
polo t-shirt	short sleeve rever collar, cotton 3 buttons		Target	12.00	1	3.0	4.00	0.08	
leggings	footless	poly/cotton elastin	Target	20.00	1	2.0	10.00	0.19	
exercise shorts	fitted, knee length	lycra	Target	12.00	1	2.0	6.00	0.12	
swim suit	one piece	poly/cotton elastin	Target	29.00	1	2.0	14.50	0.28	
Underwear & Nightwear									
briefs		cotton	Target	4.50	6	2.0	13.50	0.26	
briefs	full, plain	cotton	Target	2.50	4	2.0	5.00	0.10	
singlets	sleeveless	cotton	Target	4.50	2	1.0	9.00	0.17	
bra	medium control	cotton/elastin	Target	12.00	3	1.0	36.00	0.69	
bra	sports style	cotton/elastin	Target	13.00	2	1.0	26.00	0.50	
waist slip	elasticised waist	nylon	Target	9.00	1	2.0	4.50	0.09	
winter nightie	long sleeve, 3/4 length, pull-on	poly cotton	Target	24.00	1	2.0	12.00	0.23	
winter pyjamas	long sleeves, long legs	cotton	Target	16.00	1	2.0	8.00	0.15	
summer nightie	sleeveless, scoop neck. 3/4 length	cotton knit	Target	14.00	1	2.0	7.00	0.13	
summer pyjamas	short sleeve top, short leg	cotton knit	Target	19.00	1	2.0	9.50	0.18	
winter dressing gown	full length, long slv, buttoned through	cotton	Target	29.00	1	6.0	4.83	0.09	
stockings	knee-highs (2 prs)	nylon	Target	2.50	2	1.0	5.00	0.10	
stockings	Hilton 'Razza Matazz' pantyhose	nylon/lycra	Target	3.35	5	1.0	16.75	0.32	
tights	winter weight, soft	acry/nylon/lycra	Target	9.00	2	2.0	9.00	0.17	
socks	ankle length	cotton	Target	3.33	6	1.0	19.98	0.38	
sport socks	mid shin length, cushioned foot	cotton blend	Target	2.00	2	1.0	4.00	0.08	
Accessories									
sun hat		straw	Target	5.00	1	2.0	2.50	0.05	
sun hat	sun visor	cotton/poly	Target	6.00	1	5.0	1.20	0.02	
scarf, smart	patterned, long, rectangular	poly	Target		1	7.0			
belt, casual	medium width, buckle	leather	Target	15.00	1	5.0	3.00	0.06	
handkerchiefs	plain	cotton	Target	0.74	10	2.0	3.70	0.07	
swim goggles		plastic/rubber	Target	8.00	1	1.0	8.00	0.15	
swim cap	pull-on	rubber	Target	5.00	1	1.0	5.00	0.10	
hand bag	small	leather	Target	25.00	1	4.0	6.25	0.12	

Clothing and Footwear Budget (continued)

				Price	Quantity	Lifetime (years)	Yearly Cost	Weekly Cost
casual bag wallet	medium/large size multicompartment	canvas or straw leather	Target Target	17.00 17.00	1 1	2.0 5.0	8.50 3.40	0.16 0.07
umbrella	fold up	nylon	Target	10.00	1	5.0	2.00	0.04
Shoes								
shoes, court		leather uppers	Mathers	69.00	1	5.0	13.80	0.26
shoes, court	'Hush Puppy' medium heel, plain	leather uppers	Mathers	79.00	2	6.0	26.33	0.51
sandals	'Sandier' low heel, straps	leather uppers	Mathers	65.00	1	4.0	16.25	0.31
loafers	'Diane Ferrari' flat heel, slip-on	leather uppers	Mathers	69.00	1	2.0	34.50	0.66
joggers/trainers	lace-up, raised soles, padded	synthetic	Target	18.00	1	2.0	9.00	0.17
slippers, winter	slip-on, moccasin style	man-made fabric	Target	15.00	1	3.0	5.00	0.10
							726.88	13.94
<i>5% Reduction for Sales and Specials</i>							-36.34	-0.70
shoe repairs	heel replacement	resin	East-gardens	11.95	2	1.0	1.00	23.90
dry cleaning	suit jacket	polyester/viscose	East-gardens	7.80	2	1.0	15.60	0.30
Total							730.04	14.00

Man Aged 40 (unemployed)								
sports jacket/blazer, smart	buttoned front	poly/viscose. viscose lining	Target	89	1	5	17.80	0.34
parka	3/4 length, buttoned front, roll up hood. pockets, shower resistant	polyester cotton shell, cotton lining	Target	79	1	5	15.80	0.30
rain coat	full length, fold-up. pockets, buttoned front	plastic	Target	15	1	6	2.50	0.05
suit	single breasted jacket, fitted pants	poly/wool, polyester lining	Target	138	1	6	23.00	0.44
trousers /slacks - smart	pleated, belt, no cuffs	polyester	Target	29	2	4	14.50	0.28
jeans	fitted waist, pockets	denim	Target	25	2	1.5	33.33	0.64
tracksuit bottoms	elasticised waist and ribbed hems	cotton/polyester	Target	20	3	1	60.00	1.15
tracksuittops	crew neck, long sleeve	cotton/poly	Target	20	2	1	40.00	0.77
winter long sleeve shirt	buttoned, front, collar	flannelette	Target	9.95	1	2	4.98	0.10
long sleeve shin, business	buttoned, front, collar	poly/cotton	Target	12	6	3	24.00	0.46
long sleeve shirt, casual	buttoned front, casual neckline	cotton knit	Target	29	2	3	19.33	0.37
rugby shirt	long sleeve, collar, 3 buttons	cotton knit	Target	39	2	2	39.00	0.75
sweat shirt	sweatshirt style, long sleeve, collar,	poly/cotton	Target	32	1	2	16.00	0.31
winter jumper chunky	long sleeve crew neck	acrylic	Target	15	2	3	10.00	0.19
winterjumper, long sleeve crew neck lightweight		acrylic	Target	25	2	4	12.50	0.24

Clothing and Footwear Budget (continued)

					Price	Quantity	Lifetime (years)	Yearly Cost	Weekly Cost
summer trousers, smart	pleated waist, straight leg, belt	poly/viscose	Target	35	1	4	8.75	0.17	
summer trousers, casual	elasticised waist, straight leg	cotton	Target	35	2	3	23.33	0.45	
shorts, smart	fitted waist, zippered front, pockets, belt	poly/viscose	Target	35	1	4	8.75	0.17	
shorts, casual	elasticised waist	drill cotton	Target	15	1	1.5	10.00	0.19	
board short	elasticised waist	nylon	Target	15	1	3	5.00	0.10	
bike shorts	elasticised waist	lycra	Target	15	1	4	3.75	0.07	
work shorts (home wear)	fitted waist,	cotton drill	Target	22.5	1	3	7.50	0.14	
short sleeve shirt, smart	buttoned front, collar	cotton	Target	15	2	4	7.50	0.14	
short sleeve shirt, casual	buttoned up/grandpa' style	cotton	Target	29	2	4	14.50	0.28	
t-shirt	short sleeve, crew neck, pocket	cotton	Target	10	4	1.5	26.67	0.51	
tank top	sleeveless, ribbed, scoop neck	cotton	Target	12	2	3	8.00	0.15	
polo t-shirt	short sleeve rever collar, cotton 3 buttons	cotton	Target	9.5	1	3	3.17	0.06	
swim suit	'speedo' type,	nylon/lycra	Target	15	1	2	7.50	0.14	
Underwear/nightwear									
briefs	briefs, hipsters, cotton	cotton	Target	0.79	8	2	3.16	0.06	
briefs	boxer style	cotton/poly	Target	5	2	2	5.00	0.10	
winter pyjamas	long. sl. top, drawstring long pants	flannelette	Target	16	1	2	8.00	0.15	
summer pyjamas	short sleeve top, short leg pants	cotton	Target	18	1	2	9.00	0.17	
winter dressing gown	3/4 length, long sleeve, rever collar	towelling	Target	59	1	8	7.38	0.14	
socks, business	ankle length	cotton blend	Target	4	8	2	16.00	0.31	
socks, walking	3/4 length	cotton blend	Target	8	2	4	4.00	0.08	
sport socks	mid shin length, cushioned foot	cotton/lycra	Target	2.33	2	2	2.33	0.04	
Accessories									
sun hat	medium brim	straw	Target	5	1	3	1.67	0.03	
sun hat	sports' cap with sun visor	cotton/poly	Target	8	1	3	2.67	0.05	
belt, smart	narrow width, buckle	leather	Target	12	3	6	6.00	0.12	
belt, casual	medium width, buckle	leather	Target	25	3	5	15.00	0.29	
tie	plain	synthetic fabric	Target	15	2	7	4.29	0.08	
tie	patterned	synthetic fabric	Target	17	2	7	4.86	0.09	
wallet	money/card compartments	pigskin	Target	15	1	6	2.50	0.05	
bag	back pack	poly/pvc	Target	20	1	5	4.00	0.08	
umbrella	fold up	nylon	Target	15	1	6	2.50	0.05	
handkerchiefs	plain	cotton	Target	0.64	9	2	2.88	0.06	
swim cap	pull-on	rubber	Target	5	1	1	4.00	0.08	
swim goggles		plastic\rubber	Target	8	1	2	4.00	0.08	
Shoes									
shoes	lace ups	leather uppers	Target	60	4	4	60.00	1.15	
shoes, casual	soft, slip-on, trim	synthetic	Target	35	1	3	11.67	0.22	

Clothing and Footwear Budget (continued)

					Price	Quantity	Lifetime (years)	Yearly Cost	Weekly Cost
sandals	scuff type	synthetic	Target	20	1	3	6.67	0.13	
joggers/trainers	lace-up, raised soles, padded	synthetic	Target	18	2	1	36.00	0.69	
slippers	slip-on, mule style	synthetic	Target	18	1	3	6.00	0.12	
Sales/specials deduction						less 5%	-34.84	-0.67	
shoe repairs	heel replacement	resin	East-gardens	13.95	2	1	27.90	0.54	
dry cleaning	suit and sports jacket	polyester/viscose	East-gardens	7.8	3	1	23.40	0.45	
Total							713.18	13.71	

Girl Aged 6

winter jacket/parka	zipped front, hood, fully lined	cotton/polyester cotton lining	Target	28	1	2	14.00	0.27	
winter dress	back buttoned, full skirt	acrylic	Target	30	2	2	30.00	0.58	
winterskirt	elasticised waist	cotton/polyester	Target	20	1	2	10.00	0.19	
jeans	elasticised waist, pockets	denim	Target	18	1	1	18.00	0.35	
leggings	tight fitting, elasticised waist	cotton/elastin	Target	10	2	2	10.00	0.19	
winterjumper	long sleeve, crew neck	wool blend	Target	30	1	2	15.00	0.29	
winter cardigan	long sleeve	acrylic	Target	22	1	2	11.00	0.21	
blouse	long sleeves, bubble top	cotton/polyester	Target	16	2	2	16.00	0.31	
long sleeved top	'skivvy' type	cotton	Target	5.5	1	2	2.75	0.05	
track pants	elasticised waist, ribbed hem	cotton/polyester	Target	11	2	1	22.00	0.42	
tracksuit top	crew neck, ribbed hem	cotton/polyester	Target	11	3	1	33.00	0.63	
rain coat	button through, hood	plastic, safety yellow	Target	8	1	2	4.00	0.08	
sun dress	sleeveless	cotton	Target	16	1	2	8.00	0.15	
summer dress	back buttoned, sleeveless	cotton	Target	25	1	2	12.50	0.24	
summer skirt	elasticised waist	cotton/polyester	Target	16	1	2	8.00	0.15	
blouse	short puff sleeves	cotton/polyester	Target	12	3	2	18.00	0.35	
summer cardigan	short sleeves	ramie/cotton	Target	16	1	2	8.00	0.15	
shorts	elasticised waist	cotton/polyester	Target	9	4	2	18.00	0.35	
summer slacks	elasticised waist	visc/rayon/poly	Target	14	1	2	7.00	0.13	
t-shirt	short sleeves crew neck	cotton	Target	6	3	2	9.00	0.17	
swimming costume	all-in-one, hip frill	lycra/elast.	Target	14	1	2	7.00	0.13	
sun protection shirt	short sleeve, high neck	lycra/elast.	Target	22	1	2	11.00	0.21	
sun hat	legionnaire style	cotton/polyester	Target	6	1	2	3.00	0.06	
sun hat	straw, full brim	cotton/polyester	Target	12	1	1	12.00	0.23	
belt		leather	Target	12	1	2	6.00	0.12	
Under wear/nightwear									
briefs	full brief	cotton	Target	1.4	8	2	5.60	0.11	
singlets	sleeveless	cotton	Target	4	2	2	4.00	0.08	
socks	ankle length	cotton blend	Target	3.25	6	1	19.50	0.37	

Clothing and Footwear Budget (continued)

				Price	Quantity	Lifetime (years)	Yearly Cost	Weekly Cost	
tights	soft, winter weight	acrylic/nylon	Target	10	1	2	5.00	0.10	
summer pyjamas	sleeveless top, short pants	cotton	Target	14	2	2	14.00	0.27	
summer nightie	short sleeve, short length	cotton	Target	16	1	2	8.00	0.15	
winter pyjamas	track suit style	brushed cotton	Target	18	1	2	9.00	0.17	
winter nightie	longsleeve.3/4length	cotton knit	Target	20	1	2	10.00	0.19	
winter dressing gown	long sleeve.3/4length, button front	polyester	Target	20	1	2	10.00	0.19	
Shoes									
shoes	smart, buckle fastened	patent leather	Target	12	1	1	12.00	0.23	
joggers	lace up, raised sole	synthetic	Target	16	1	1	16.00	0.31	
thongs		synthetic	Target	2	1	1	2.00	0.04	
slippers		man made fibre	Target	14.95	1	1	14.95	0.29	
School clothes									
pinafore (worn with shirt)	school design	poly/cotton	school	33	1	1	33.00	0.63	
shirt	short sleeve, polo style	poly/cotton	school	14	5	1	70.00	1.34	
jumper	sweat top style	poly/cotton	school	16.75	1	1	16.75	0.32	
track suit	top and bottom	poly/cotton	school	31	1	1	31.00	0.59	
skirt	pleated, adjustable waist	poly/cotton	school	16	2	1	32.00	0.61	
skirt sports	pleated front, wrap around	poly/cotton	Target	16	1	2	8.00	0.15	
t-shirt sports	short sleeves	cotton	Target	6	1	1	6.00	0.12	
shoes	lace ups	leather uppers	Target	20	2	1	40.00	0.77	
apron (for crafts)	full wrap around	poly/cotton	Target	12	1	2	6.00	0.12	
bag	back pack	polyester	Target	14.95	1	3	4.98	0.10	
umbrella	'Disney'	lycra	Target	12	1	2	6.00	0.12	
							697.03	13.37	
Sales/specials deduction							less 5%	34.85	0.67
Total								662.18	12.70

Boy Aged 14								
winter jacket/parka	3/4 length, buttoned front, roll up hood pockets, shower resistant	cotton/polyester cotton lining	Target	79	1	2	39.50	0.76
trousers, smart	fitted waist, belt, pockets	polyester/viscose	Target	29	1	2	14.50	0.28
wintershirt, casual	long sleeves	flannelette	Target	9.95	1	2	4.98	0.10
jeans	fitted waist, pockets	denim	Target	25	1	1	25.00	0.48
winterjumper	long sleeve, crew neck	wool	Target	49	1	3	16.33	0.31
winter jumper	long sleeve, crew neck	acrylic	Target	15	1	1	15.00	0.29
track pants	elasticised waist, ribbed hem	cotton/polyester	Target	20	2	1	40.00	0.77
tracksuit top	crew neck, ribbed hem	poly/cotton	Target	20	1	1	20.00	0.38
sweat shirt	long sleeve, crew neck	poly/cotton	Target	20	1	1	20.00	0.38

Clothing and Footwear Budget (continued)

				Price	Quantity	Lifetime (years)	Yearly Cost	Weekly Cost
School clothes								
pants	short leg, fitted waist, 'longer' leg style	cotton drill	Target	15	3	1	45.00	0.86
pants	long leg, elastic waist, 'Stubbies'	winter weight	Target	24	2	1	48.00	0.92
shirt	short sleeve, collar	poly/cotton	Target	9	5	1	45.00	0.86
school jumper	sweat shirt style	poly/cotton	school	20	1	1	20.00	0.38
sports uniform	elasticised shorts & t-shirt	cotton	Target	24	1	1	24.00	0.46
socks, school	ankle length	cotton	Target	3.25	5	1	16.25	0.31
Other Casual Wear								
summer trousers, casual	fitted waist	cotton/polyester	Target	20	2	2	20.00	0.38
summer shirt, casual	short sleeves, grandpa neck	cotton/ramie	Target	20	2	2	20.00	0.38
shorts, smart	fitted waist	cotton/linen	Target	24	1	2	12.00	0.23
shorts, board	'surflabel'	canvas	Target	16	2	1	32.00	0.61
shorts, board	'surflabel',	nylon	Target	20	1	1	20.00	0.38
t-shirt	short sleeves crew neck	cotton	Target	8	2	2	8.00	0.15
t-shirt	'surf label' short sleeves, crew neck	cotton	Target	22	1	1	22.00	0.42
swimming costume	'speedo' type	lycra/elast.	Target	15	1	1	15.00	0.29
'rash vest'	short sleeve, high neck	lycra	Target	29	1	2	14.50	0.28
sun hat	'surf cap with sun visor	poly/cotton	Target	12	1	2	6.00	0.12
sun hat	full brim	straw	Target	5	1	1	5.00	0.10
Underwear/Nightwear								
underpants	hipster style	cotton	Target	1.45	5	2	3.63	0.07
underpants	boxer style	cotton	Target	5	2	2	5.00	0.10
socks	ankle length, 'sports'	cotton	Target	2.2	3	2	3.30	0.06
summer pyjamas	short sleeve top, short pants	cotton	Target	18	2	2	18.00	0.35
winter pyjamas	long sleeve, long leg	flannelette	Target	16	1	2	8.00	0.15
Shoes								
shoes, school	Rollers' style	leather uppers	Target	35	2	1	70.00	1.34
joggers	New Balance	all synthetic	Rebel	70	1	1	70.00	1.34
sandals	surf sandals	all synthetic	Target	4.95	1	1	4.95	0.09
Accessories								
belt, casual	wide	leather	Target	25	1	4	6.25	0.12
wallet	soft style	synthetic	Target	10	1	2	5.00	0.10
school bag	back pack	polyester	Target	20	1	2	10.00	0.19
swim cap	pull on	rubber	Target	5	1	1	5.00	0.10
swim goggles		rubber/plastic	Target	8	1	1	8.00	0.15
Sales/specials deduction							less 5%	-39.26 -0.75
Total							745.92	14.31
Total Clothing and Footwear							2,853.06	54.72

Low Cost Household Goods and Services Budget for Couple with Two Children

		Unit Price {\$}	Quantity purchased	Lifetime in years	Weekly Cost (\$)
Lounge/Dining Furniture					
TV/video/stereo trolley	Freedom—'Ark'-3-tier-w74xd37xh7 1	80.00	1	15	0.10
storage/display unit-l	Ikea 'Ivar' w80xd30xh179 (x2) wood	500.00	1	15	0.64
bookcase	Freedom—'Alpine'w75xd24xh 1 77-wood	110.00	1	15	0.14
2-seater settee	Ikea—'Nicolina'-w163xh83	449.00	2	15	1.15
lounge chair	Freedom—'Bahama Tub chair, cane	66.00	2	17	0.15
3 coffee/end tables	Freedom — 'Clair' -timber veneer	200.00	1	15	0.26
dining table	Freedom— 'Milan' ext. table 160/198x90-oak	339.00	1	15	0.43
dining chair	Ikea — 'Hepola' lacq. wood	59.00	4	15	0.30
single bed (king)	Capt'n Snooze—'Sleepmaker'	499.00	1	12	0.80
single bed (standard)	Capt'n Snooze—'Sleepmaker'	399.00	1	12	0.64
queen size	Capt'n Snooze—'Sleepmaker'	699.00	1	12	1.12
chest of drawers (lg.)	Ikea—'Kurs'-whiteIamin.-w81xd39xh123-6-draw.	299.00	3	17	1.01
chest of drawers (sm.)	Ikea—'Kurs'-whiteIamin.-w81d39h78-3-draw.	199.00	1	15	0.25
bedside table	Ikea—'Bialitt',wood-w43xd38xh48	49.00	2	17	0.11
bedside table-child	Ikea— 'Bialitf. wood-w43xd38xh48	49.00	2	15	0.13
foam mattress (single)	Kmart	56.00	1	17	0.06
sleeping bag	Kmart — Jackeroo Swagman 215x80cm	70.00	1	12	0.11
cotton blanket (sing.)	Target	30.00	1	17	0.03
flat sheet (single)	Kmart—'Dreamtex'	18.00	1	20	0.02
pillow	Kmart — The Price Brand'-polyester fill	5.00	1	17	0.01
folding chair	Kmart—PVC/steel frame	20.00	4	15	0.10
desk (child)	Ikea—'Erik/Einar'-lamin.-L118xW58xH72	69.00	1	12	0.11
desk chair	Freed.Furn.—'Pyrmont'	130.00	1	12	0.21
bookcase (sm.)	Ikea—'Billy'-w80xd28xh 106	99.00	2	12	0.32
bathroom mirror	Kmart — 'Garmond'- vanity mirror-plastic frame	19.98	1	17	0.02
carpel cleaning	2 & 3 bed unit	35.00	1	1	0.67
cleaning of furnishings	two sealer lounge	20.00.	1	4	0.10
tablecloth(lg.)	Kmart—Table Manners'- 1 50x270cm	28.00	1	5	0.11
tea towels-set of 4	Kmart—The Price Brand'	3.30	2	5	0.03
hand towel	Kmart—'Cottage Kitchen'	2.45	4	5	0.04
apron	Kmart — 'popover'-cotton/polyester	9.35	1	6	0.03
oven mitt	Kmart — 'Cottage Kitchen'-double mitt	4.75	1	4	0.02
ironing board cover	Woolworths — 46cm wide	2.12	1	1	0.04
peg bag	Kmart—fabric	2.98	1	6	0.01
laundry bag	Kmart — (for washing delicates)	2.95	1	2	0.03
pillow	Kmart—The Price Brand'-polyester fill	4.75	8	6	0.12
doona (single)	Kmart — 'Dreamtex'-polyester fill	29.95	2	12	0.10
doona (queen)	Kmart—'Dreamtex'-polyesterfill	42.00	1	12	0.07
doona cover (single)	Kmart—'Country Living'+pillow case	49.00	4	10	0.38
doona cover (queen)	Kmart — 'Country Living'+2 pillow cases	69.00	2	10	0.26
pair sheets (king single)	Target flat/fitted + 1 pillow case	45.00	2	10	0.17
pair sheets (single)	Kmart— 'Dreamtex'-flat/fitted+1 pillow case	24.95	2	10	0.10
pair sheets (queen)	Kmart— 'Dreamtex' -flal/fitted+2 pillow cases	41.00	2	10	0.16
thermal blanket	Target — cotton-double bed	40.00	1	13	0.06
thermal blanket	Target — cotton-single bed	30.00	2	17	0.07
cushion	Kmart—'Good Living'-41cmx41cm	11.25	4	6	0.14
bath towel	Kmart—'Dickies Gold'	15.95	8	4	0.61
hand towel	Kmart—'Dickies Gold'	7.45	8	4	0.29
beach towel	Kmart—'Waves'	19.95	6	6	0.38

Household Goods and Services Budget (continued)

		Unit Price (\$)	Quantity purchased	Lifetime in years	Weekly Cost (\$)
bath mat	Kmart—'Dreamtex '-rubber-backed	24.95	2	4	0.24
washer	Kmart—'Dickies Gold'	3.95	8	1	0.61
shower curtain	Target—nylon	17.50	1	5	0.07
Other Furnishings & Ornaments					
waste paper basket	Wool worths—plastic	1.59	1	3	0.01
lamp base	Kmart—'Silkhands'-ceramic	19.95	5	15	0.13
lamp shade (table)	Kmart—'Silkhands'	7.95	5	10	0.08
standard lamp	Target—'Mood'-metal	59.00	1	15	0.08
desk lamp	Kmart—'Horizon'-flexible neck-plast.shade	21.98	1	5	0.08
mirror(wall)	Kmart—'Garmond'-36cmx46cm	19.98	1	15	0.03
vase	Kmart—'Vinciana'-glass-23cm	9.98	2	7	0.05
doormat	Kmart—coir	5.99	1	12	0.01
Tableware					
dinner service	Kmart—20pc-setting for 4	23.95	2	6	0.15
mug	Wool worths	0.99	8	2	0.08
egg cups (4)	Kmart—plastic-set	1.98	1	6	0.01
large glasses (4)	Kmart—'Metro Tavern'-set	5.98	2	4	0.06
small glasses (6)	Kmart—'Metro'-tumblers-set	4.98	2	3	0.06
wine glasses (6)	Kmart—'Crown Classic'-set	14.95	2	4	0.14
glass water jug	Kmart	4.95	1	12	0.01
milk jug (sm)	Target—earthenware	4.95	1	12	0.01
sugar bowl	Target—earthenware	4.95	1	12	0.01
dessert/cereal bowl	Wool worths—ceramic	1.99	8	6	0.05
set of cutlery	Kmart—'BIPA'-24pc+stand-setting for 6	14.98	2	19	0.03
salad bowl	Kmart—wooden-30cm	3.95	1	4	0.02
salad servers	Kmart—plastic	3.25	1	17	0.00
teapot (sm.)	Kmart—ceramic-460ml	4.98	1	9	0.01
coffee plunger (sm.)	Wool worths—6cup	8.99	1	7	0.02
table mat	Kmart—'CottageKitchen'-oval-fabric	3.75	4	5	0.06
table mat (child)	Kmart—pvc	1.15	2	3	0.01
cork mats	Kmart—set of 3 - round	8.98	1	6	0.03
meat serving dish	Kmart—ceramic-oval platter-44cm	16.95	1	10	0.03
serving dish	Kmart—ceramic	18.00	1	10	0.03
Cookware					
saucepans:-	Kmart — 6 pc. cookware set-'Chef-st. steel: - 1x14cmsaucepan- 1 lt 1x16cmsaucepan-1.3lt 1x18cm saucepan-2lt Ix24cm stockpot-4.5lt 1x24cm frypan 1 x 18cm steamer insert	129.00	1	15	0.16
frying pan	Kmart—30cm-non-slick	26.95	1	8	0.06
large stockpot	Kmart—7.61l-aluminium	17.98	1	15	0.02
small saucepan	Kmart—st. steel	11.98	1	15	0.02
baking dish	Kmart—'Country Bake'-non-stick	7.48	2	12	0.02
baking tray	Kmart—'Country Bake'-non-stick	5.48	1	12	0.01
casserole (oval) (round)	Kmart—with lid-2.9U-glass Kmart—with lid-1.9lt-glass	12.78 7.75	1 1	15 15	0.02 0.01
cake pan (round) " " (square) " " (loaf)	Kmart—non-stick-20cm Kmart—non-stick Kmart—non-stick-22cmx 11 cm	4.68 2.48 2.48	1 1 1	12 12 12	0.01 0.00 0.00
spring-form cake pans	Kmart—set of 3	7.98	1	12	0.01

Household Goods and Services Budget (continued)

			Unit Price (\$)	Quantity purchased	Lifetime in years	Weekly Cost (\$)
quiche dish	Kmart—ceramic	8.78	1	15	0.01	
cooling rack	Kmart—st.steel	2.95	1	12	0.00	
egg rings	Kmart — set of 3	2.45	1	15	0.00	
Kitchenware N.E.C.						
cake decorating set	Kmart—6pc-plastic	2.35	1	15	0.00	
pastry brush	Kmart	1.98	1	2	0.02	
pastry/cookie cutters	Kmart — 3 shapes-st. steel-plastic handles	3.25	1	15	0.00	
rolling pin	Kmart—wooden	5.28	1	12	0.01	
egg beater	Kmart—st. steel	7.45	1	15	0.01	
flour sifter	Kmart—st.steel	5.95	1	15	0.01	
scrapers	Kmart—set of 2-plastic	1.98	1	10	0.00	
egg slice	Woolworths — Chef Craft-st steel/plastic	0.99	1	15	0.00	
draining spoon	Woolworths — Chef Craft-st steel/plastic	0.99	1	15	0.00	
soup ladle	Woolworths — Chef Craft-st steel/plastic	0.99	1	15	0.00	
potato masher	Woolworths — Chef Craft-st steel/plastic	0.99	1	15	0.00	
serving spoon	Woolworths— Chef Craft-st steel/plastic	0.99	1	15	0.00	
wooden spoons	Woolworths— pkt 3	0.79	1	5	0.00	
mixing bowls	Kmart — set of 3-plastic	2.45	1	5	0.01	
chopping board (sm.)	Kmart—polythene	4.98	1	5	0.02	
" " (lg.)	Kmart—polythene	5.98	1	5	0.02	
measuring set	Kmart—plastic-9pc:- 4 spoons, 4 cups, 1 lt jug	7.95	1	10	0.02	
tray	Kmart—wooden-rectangular	4.95	2	10	0.02	
knives & knife block	Kmart—set of 6	29.98	1	25	0.02	
carving knife	Messermeister 5025-8-(Dec 96)	38.00	1	25	0.03	
carving fork	Kmart—'Metalex'-st. steel-plastic handle	3.95	1	15	0.01	
can opener	Kmart—metal	1.28	1	6	0.00	
garlic crusher	Kmart—st.steel	2.95	1	15	0.00	
potato peelers	Kmart—set of 3	1.45	1	6	0.00	
corkscrew	Kmart	6.95	1	14	0.01	
tea strainer	Kmart—sm. sieve-metal mesh	1.35	1	6	0.00	
tongs	Kmart—metal	1.28	2	6	0.01	
kitchen scissors	Kmart—plastic handles	2.95	1	14	0.00	
lemon squeezer	Kmart—plastic + jug	3.45	1	6	0.01	
pepper & salt	Kmart—pepper mill/salt shaker set-plastic	7.95	1	12	0.01	
grater	Kmart—metal-conical-non-stick	3.68	1	8	0.01	
sieve (lg.)	Kmart — metal mesh	4.65	1	8	0.01	
(sm.)	Kmart — metal mesh	3.98	1	8	0.01	
colander/strainer	Kmart—metal mesh	6.98	1	8	0.02	
plate drainer	Kmart—plastic-coated wire	3.98	1	6	0.01	
cutlery drainer	Kmart—plastic	1.78	1	6	0.01	
cutlery tray	Kmart—plastic	4.85	1	12	0.01	
kitchen scales	Kmart—lg.-10kg	19.98	1	17	0.02	
thermos flask	Kmart—1lt	19.98	1	9	0.04	
Esky	Hardwarehouse—27 It	49.95	1	15	0.06	
storage set	Kmart—'Willow'-plastic-l0pc:- 2x200ml-round 3x700ml-rectangular 2x1.51t-rectangular 2x1.91t-rectangular 1x10lt-rectangular	24.95	1	12	0.04	
lunch box	Kmart—1.25lt-plastic-rectangular	3.98	4	10	0.03	

Household Goods and Services Budget (continued)

		Unit Price (\$)	Quantity purchased	Lifetime in years	Weekly Cost (\$)
vegetable rack	Kmart—plastic-stackable	2.95	2	10	0.01
plastic tumbler	Coles—Lion King	3.49	2	4	0.03
Cleaning Utensils					
squeegee mop	Kmart—Sabco	14.95	1	5	0.06
mop refill	Kmart—Oates-2 & 4 hole multi-fit	5.75	4	1	0.44
soft broom head	Kmart — The Price Brand'-vinyl	4.95	1	3	0.03
broom handle	Kmart—Sabco	3.95	1	12	0.01
hard broom	Kmart—'Queen'-5-tie	9.95	1	8	0.02
dust pan & brush	Kmart—Oates	4.75	1	4	0.02
lambwool duster	Woolworths	2.51	1	4	0.01
lg. scrubbing brush	Kmart—Oates	2.75	1	4	0.01
shoe brush	Kmart—Oates	1.40	2	7	0.01
bottle brush	Kmart—Sabco	2.15	1	7	0.01
washing-up brush	Kmart—Sabco	2.75	3	1	0.16
toilet brush & holder	Kmart—Oates	4.25	1	7	0.01
plastic sponges	Coles—'Savings'-pkt 5	1.39	5	1	0.12
Chux wipers	Coles—'Savings'-pkt 10	0.93	5	1	0.08
pot scourers	Coles—'Savings'-pkt 5	0.35	3	1	0.02
steel wool	Coles—'Savings'-pkt 10	0.60	2	1	0.02
Household Durables					
kitchen tidy bin	Kmart—Nylex-331t-plastic-flaptop	13.98	1	5	0.05
garbage bin	Kmart—Willow-75lt-plastic	14.98	1	3	0.10
bucket	Kmart—l0lt-plastic	0.98	1	3	0.01
laundry basket	Kmart—Sabco-linen tidy-plastic	19.98	1	12	0.03
wash basket	Kmart—cane-oval	6.98	1	5	0.03
clothes horse	Kmart — Greer airer-20 rails-plastic-coated	25.75	1	12	0.04
coat hangers (10)	Kmart — The Price Brand-plastic-coated	2.98	8	12	0.04
pegs (48)	Kmart—Reva-spring-plastic	3.95	4	3	0.10
sink plug	Kmart—Chefmulti-fit-rubber	2.25	2	20	0.00
bath plug	Kmart—Chefmulti-fit-rubber	2.25	1	20	0.00
light bulb	Kmart—all wattage	0.89	17	1	0.29
ironing board	Kmart—The Price B rand- 122cmx 37cm	33.95	1	20	0.03
bathroom scales	Kmart—Soehnle	46.95	1	12	0.08
extension lead	Kmart—7m	5.98	1	12	0.01
double adaptor	Kmart	2.88	4	12	0.02
power board	Kmart—4-outlet-1.8m	10.18	1	12	0.02
torch	Woolworths—+2Eveready batteries	5.88	1	5	0.02
Miscellaneous Commodities					
hot water bottle	Kmart-Astra	2.95	1	5	0.01
suitcase	Kmart — Viscount, Astra, 60 cm, PVC viny/poly	29.95	2	12	0.10
duffle bag	Kmart — Tosca, large, crinkle nylon	34.95	2	12	0.11
Household Non-Durables					
<i>festive items</i>					
patty pans (paper)	Coles—'Deeko'-pkt 100 (patterned)	2.45	1	2	0.02
paper napkins	Coles — 'Deeko'-pkt 50 (coloured)	3.71	1	1	0.07
paper plates (lg.)	Coles — 'Deeko'-pkt 8 (patterned)	2.36	1	2	0.02
paper plates (sm.)	Coles — 'Deeko'-pkt 20 (patterned)	2.52	1	1	0.05
paper bowls	Coles—'Deeko'-pkt 10 (patterned)	1.88	1	2	0.02
plastic glasses	Coles— 'Lily'-pkt 20 (clear)	1.75	1	2	0.02
plastic tablecloth	Coles—'Starlight' 150cmx230cm	23.95	1	5	0.09
plastic forks	Woolworths—pkt24	0.78	1	2	0.01
plastic spoons	Woolworths — 'Home Brand'-pkt 10		1	1	0.01

Household Goods and Services Budget (continued)

		Unit Price (\$)	Quantity purchased	Lifetime in years	Weekly Cost (\$)
birthday candles	Coles — 'Unique'-pkt 12	0.59	1	1	0.01
balloons	Coles—'Alpen'-pkt 100	4.10	1	2	0.04
greeting cards	Coles — pack 10 (no message)	4.50	1	1	0.09
greeting paper	Coles—pack 2x5 metre roll	4.95	2	1	0.19
Christmas decorations					
tree and stand	Coles—182 cm artificial	20.00	1	10	0.04
tree decorations	Coles—bells, garlands, tinsel	14.00	1	10	0.03
bon-bons	Coles—pack of 12	9.99	1	1	0.19
Christmas cards	Coles—pack of 10	3.95	2	1	0.15
Christmas tags	Coles—pack of 20	3.00	1	1	0.06
Christmas paper	Coles — pack (4 rolls x 5 metres)	3.50	1	1	0.07
balloons	Coles—pack of 25	3.40	1	1	0.07
Other Household Non-Durables					
dishwashing detergent	Coles— 'Savings'-500ml	0.80	14	1	0.21
washing powder	Coles—'Savings'-4kg	4.60	8	1	0.71
laundry soap	Coles—'Savings'-500g	0.86	1	1	0.02
powder cleanser	Coles—'Savings'-500g	0.99	4	1	0.08
cream cleanser	Coles—'Savings'-500ml	0.83	3	1	0.05
floor cleaner	Coles—'Selleys'	2.69	2	1	0.10
oven cleaner	Coles—'Savings'-300g	1.83	1	1	0.04
disinfectant	AS I/Coles— Pine O'Clean-500ml (sale price)	1.79	4	1	0.14
glass cleaner	AS I/Coles— Windex-5 00ml (refill-sale price)	2.34	2	1	0.09
bleach	Coles—'Savings'-2lt	1.19	2	1	0.03
wool wash	Woolworths—'Home Brand'-1.25lt	1.79	8	1	0.27
fabric softener	Woolworths—'Home Brand'-2lt	0.76	8	1	0.12
soaker	Coles— 'Preen'-750g	4.24	8	1	0.65
spray -on stain remover	Coles — Savings' - 350gms	2.10		1	0.97
lavatory cleaner	Coles—'Harpic'-500ml	2.67	4	1	0.20
carpet shampoo	ASI/Coles—Karpet carpet powder-500g	6.75	2	1	0.26
furniture polish	Coles—'Savings'-400g	1.60	2	1	0.06
shoe polish	Coles—'Kiwi'-50g	1.53	6	1	0.18
greaseproof paper	Coles—'Farmland'-30m	1.69		1	0.52
paper towels	Coles—'Savings'-pkt 2	1.50	7	1	0.20
paper napkins	Coles — 'Savings'-pkt 100 (white, plain)	0.96	1	1	0.02
toilet paper	Coles—'Safe'-pkt 6	2.97	26	1	1.48
clingwrap	ASI/Coles—Glad wrap-60m	3.08	3	1	0.18
foil	Coles—'Savings'- 10m	1.20	4	1	0.09
garbage bags	ASI/Coles—'Glad Tuff Stuff -pkt 20	3.99	6	1	0.46
kitchen tidy bin liners	Coles—'Farmland'-pkt 20	1.89	8	1	0.27
matches	Woolworths—'Redheads'	0.85	1	1	0.02
candles	Woolworths—pkt 6 plain white	0.74	1	1	0.01
batteries—DD	Woolworths—'Eveready', pkt 2	2.68	1	1	0.05
batteries—AA	Woolworths—'Duracell'pkt 4	6.14	1	1	0.12
rubber gloves	Coles — 'Savings'-1 pair		12	1	0.09
insecticide	Coles — 'Savings'-300g	1.76	2	1	0.07
insect repellent	ASI/Coles — Aerogard-150g	4.09	4	1	0.31
cockroach baits	Coles — 'Mortein Superbaits'-pkt 12	6.88	1	1	0.13
turps	Coles—'Glendale'-1lt	1.96	1	1	0.04
methylated spirit	Coles—'Glendale'- 1lt	2.45	1	1	0.05
ball of string	Woolworths—Tapex', 60m	0.99	1	1	0.02
Appliances	<i>Retruvision (RT)</i>				
fridge-520L	RT/SharpSJ51GWH	1,429.00	1	15	1.83

Household Goods and Services Budget (continued)

		Unit Price (\$)	Quantity purchased	Lifetime in years	Weekly Cost (\$)
food processor	RT/Philips—HR2830-P	89.00	1	15	0.11
blender	RT/Breville—BLR3G	59.00	1	15	0.08
microwave oven-28L	RT/Sharp—R3C59	269.00	1	15	0.34
electric kettle	Kmart—Tiffany'-1.7lt	24.99	1	5	0.10
toaster	RT/Black & Decker—ET50	39.00	1	10	0.07
kitchen clock (electric)	Kmart—'The Price Brand'	12.95	1	17	0.01
bedroom clock/alarm	Kmart—'The Price Brand'	16.95	1	17	0.02
washing machine - 7.5 kg	RT/Hoover—Commander	829.00	1	15	1.06
elec. blanket - queen	Kmart—Sleepwarm	79.00	1	12	0.13
heater-elec.convec.-lg.	Vulcan—Diablo 486001	279.00	1	15	0.36
heat.-elec.convec.-sm.	Goldair—Turbo Convector 571	149.00	1	15	0.19
steam/dry iron	Philips—ComfortPius 2IOHD 1512	65.00	1	8	0.16
vacuum cleaner	Panasonic—MC-4500	148.00	1	17	0.17
pedestal fan	40cm-Airmaster TPA-4093-	69.00	1	17	0.08
sewing machine	Hurstville Sewing Centre Janome—'Mystyle' 20	449.00	1	27	0.32
sewing box	Woolworths—'Decor' Oblong 1.5 litre container	2.20	1	12	0.00
cotton	Woolworths—'Coates' polyester - 500 mtrs	0.98		12	0.00
sewing needles	Woolworths—'Newey Craft' - 16	0.98		4	0.00
sewing machine needles	Woolworths—'Stich & Sew' - 10 (pkt)	1.58		4	0.01
scissors	Woolworths—'Stich & Sew' 10	1.89		7	0.01
pins	Woolworths—'Stich & Sew' 90	2.57		6	0.01
buttons	Woolworths—'Beulron' 30 (shirt/blouse buttons)	1.25	1	4	0.01
electric drill	Mitre 10—Ryobi	79.95	1	22	0.07
set of drill bits	Thrifty-Link—Sutton-21 pc	32.95	1	22	0.03
Gardening Tools	(not for households in units)				
Other Tools					
retractable knife	BBC—Stanley trim 99E	12.00	1	27	0.01
hacksaw	BBC—Sandvik 225S	38.00	1	27	0.03
pliers	BBC—Orbi 150mm-long nose	31.00	1	27	0.02
adjustable wrench	BBC—Toledo 150mm	29.00	1	27	0.02
hammer	BBC—Plumb 20oz-fibreglass handle	76.00	1	27	0.05
screwdriver set	Mitre 10—Stanley-13pc	39.95	1	27	0.03
tape measure	Thrifty-Link — retractable-8m	7. 95	1	17	0.01
step ladder (sm.)	Thrifty-Link — aluminium-2-step household	15.95	1	27	0.01
School - fees/charges	14-year-old				
P&C contributions	secondary schools (not for low cost)	21.00		0	0.00
text books	secondary schools	51.00	I	1	0.98
paper/photocopying	secondary schools	15.00	I	1	0.29
computer disks	secondary schools	19.00	I	1	0.36
assignment material	secondary schools	27.00	1	1	0.52
elective subjects	secondary schools	44.00	1	1	0.84
elective subjects	secondary schools	42.00	1	1	0.81
fundraising	secondary schools (not for low cost)	19.00	1	1	0.00
school photos	secondary schools	21.00	1	1	0.40
school camps	secondary schools	116.00	1	I	2.22
school excursions	secondary schools	49.00	1	1	0.94
sport (summer)	secondary schools	39.00	1	1	0.75
sport (summer)	secondary schools	41.00	1	1	0.79
school entertainment	secondary schools	33.00	1	1	0.63
Infants school	6-year-old				
entertainment/excursions	infants school	15.00	1	1	0.29
school photos	infants school	19.00	1	1	0.36

Household Goods and Services Budget (continued)

		Unit (\$)	Price	Quantity purchased	Lifetime in years	Weekly Cost (\$)
assignment material	infants school		27.00	1	1	0.52
ruler	Woolworths—plastic		0.28	2	1	0.01
pencil case	Woolworths—plastic-3lcm		1.87	2	1	0.07
lead pencil	Woolworths—'Staedtler'-pk13		0.75	8	1	0.12
sharpener	Woolworths—'Staedtler'-metal		1.08	2	1	0.04
rubber	Woolworths—pkt5		0.49	2	1	0.02
biros	Woolworths — pkt 6-blue, black, red		0.99	4	1	0.08
exercise book	Woolworths—96pp		0.42	12	1	0.10
ring-binder folder	Woolworths		1.82	2	1	0.07
hole-punched paper	Woolworths — foolscap-70pp		1.00	4		0.11
Telephone						
Telephone set	Retravision—'Slim Line 15'		50.00	1	15	0.06
Installation cost	Telstra—(private renter)		50.00	1	2	0.48
Line rental	Telstra—(11.65 per month)		139.00	1	1	2.67
2 adults + 14 y.o. boy	calls (15% discount applied)		465.35	1	1	8.93
Postage	all households - stamps		25.20	1	1	0.48
	parcels (250gms to 500gms)		2.80	2	2	0.05
	parcels (501gms to 1kg)		5.00	1	2	0.05
Repair & maintenance of household appliances	1993 HES figures for repair & maintenance of household appliances (updated by the CPI to February 1997)		0	1	1	2.19
Total Household Goods and Services						58.92

Low Cost Health Budget for Couple with Two Children

	Expenditure (\$ per annum)				
	Girl Aged 6	Boy Aged 14	Woman Aged 35	Man Aged 40	Household
Dental Care	(\$)	(\$)	(\$)	(\$)	(\$)
Examination	50.00	50.00	50.00	50.00	
Filling	-	-	26.25	26.25	
Scale	26.25	26.25	26.25	26.25	
<i>Total Dental</i>	<i>76.25</i>	<i>76.25</i>	<i>102.50</i>	<i>102.50</i>	
Medication					
Prescription	12.80	9.60	19.20	12.80	
Non-prescription	18.90	12.10	13.85	13.85	
Vaccination	-	-	-	-	
<i>Total Medication</i>	<i>31.70</i>	<i>21.70</i>	<i>33.05</i>	<i>26.65</i>	
Other					
Contraception	-	-	23.16	23.16	
Glasses	-	-	-	64.00	
Vaccination	-	-	-	-	
First Aid Kit (1 kit per 10 yrs)					8.20
Total Other	-	-	23.16	87.16	8.20
<i>Total per annum</i>	<i>107.95</i>	<i>97.95</i>	<i>158.71</i>	<i>216.31</i>	<i>8.20</i>
Total per week	2.07	1.88	3.04	4.15	0.16
Total Health (all Household members)					11.30

Low Cost Transport Budget for Couple with Two Children

	Cost per annum	Cost Per Week
	(\$)	(\$)
Depreciation (12-year-old Corolla)	202.50	3.88
Car accessories	31.23	0.60
Pink Slip	23.00	0.44
Licence	43.20	0.83
Transfer of rego (spread over period of ownership)	11.07	0.21
Registration	213.00	4.09
3rd party person insurance	366.00	7.02
Comprehensive insurance	317.85	6.10
NRMA membership	44.00	0.84
Child seat	42.57	0.82
Tyre costs	141.97	2.72
Repair costs	813.10	15.59
Tolls	5.16	0.10
Petrol	784.62	15.05
Oil	3.34	0.06
Parking	6.00	0.12
Taxis	54.80	1.05
Other public transport	92.50	1.77
Total Transport	3,195.93	61.30

Low Cost Leisure Budget for Couple with Two Children

		Cost per week (\$)	Cost per annum (\$)
Home & Social (all)	Books—paperbacks (LC)	0.74	38.80
	Teenage paperback	1.04	54.00
	Books for 6-year-old	1.15	60.00
	Newspaper	3.95	205.73
	Magazine (LC)	1.52	79.06
	Television (LC)	0.51	26.60
	Video (LC)	0.50	25.90
	One week rental video (MBA & LC)	1.58	82.20
	Blank video tapes (twin pack) (LC)	0.74	38.36
	Radio/tape/CD player (LC)	0.32	16.90
	Other radio/tape/CD players	0.19	9.90
	Blank cassette tapes (10 pack)	0.39	20.55
	Compact Discs (music) (LC)	0.78	40.89
	Pack of cards	0.01	0.39
	Monopoly	0.04	2.20
	Scrabble	0.04	2.19
	Chess/Draughts/Backgammon	0.02	0.80
	Camera	0.13	6.90
	Photo album (large)	0.17	8.90
	Film	0.19	9.91
	Film processing	0.45	23.35
Toys for 6-year-old	Washable poster paint	0.37	19.20
	Paint brushes	0.09	4.84
	Sponge painting pack	0.08	4.20
	Paint palette	0.03	1.32
	Craft glue (500ml)	0.07	3.80
	Coloured pencils	0.06	3.14
	Crayons	0.06	3.16
	Pastels	0.06	3.12
	Chalk	0.12	6.00
	Chalk board	0.37	19.20
	Funtime Play Dough	0.05	2.72
	Cutters for dough play	0.01	0.77
	Rolling Pin	0.02	1.05
	Balls	0.06	3.07
	Stacking bin, 'toy box'	0.08	3.98
	Doll	0.07	3.40
	Doll's bassinette	0.15	8.00
	Soft toy	0.06	3.00
	Bicycle(girl)	0.51	26.40
	Bicycle tube	0.03	1.33
	Repair tool kit	0.02	1.07
	Helmet child	0.12	6.00
	Plastic bead set	0.07	3.59
	Hand puppets	0.14	7.10
	Blow bubble pack	0.12	6.00
	Card games	0.03	1.60
	Jigsaw puzzles	0.06	3.20
	Fun and Games Book	0.04	2.00
	Colouring in book	0.12	6.40
	Scissors	0.05	2.36

Leisure Budget (continued)

		Cost per week (\$)	Cost per annum (\$)
	Coloured paper	0.09	4.76
	Mosaic gummed paper shapes	0.06	3.16
	Recorder	0.03	1.31
	Swing	0.15	7.73
	Bucket and spade	0.03	1.78
	Roller skates	0.13	7.00
Leisure goods for 14-year-old	Soccer ball	0.09	4.53
	Foot ball	0.08	4.00
	Board game	0.14	7.20
	Model Kits—Star Wars	0.12	6.00
	Pack of cards	0.01	0.62
	Bicycle	0.55	28.64
	Bicycle helmet	0.15	8.00
	Inner tube	0.14	7.20
	Bike pump	0.01	0.70
	Puncture repair kit	0.02	1.20
	Skateboard	0.36	18.67
	Protective pads (elbows)	0.08	4.00
	Protective pads (knees)	0.05	2.67
	Cinema (children)	1.68	87.45
Arts, entertainment and outings (all)	Animal/marine park	0.67	34.90
	Day trip — Blue Mountains	1.49	77.44
	Swimming entrance	8.65	451.12
	Swimming other	-	0.00
Sports (all)	Soccer for boy, 14 years	1.36	71.00
	Little athletics for girl, 6 yrs	1.02	53.00
	Holidays	1.89	98.33
Holidays (all)	Holiday food loading	1.53	80.00
Total Leisure		38.11	1,986.95

Low Cost Personal Care Budget for Couple With Two Children

Items	Cost per year (\$)	Cost per week (\$)
Household Items		
Soap, 100g, 5 pack	14.20	0.27
Nail brush	0.44	0.01
Toothpaste, 120g	36.00	0.69
Shampoo, 1 litre	2.50	0.05
Conditioner, 1 litre	3.33	0.06
Nail scissors	0.82	0.02
Cotton wool balls, 150 balls	8.80	0.17
Tissues, 200	8.61	0.17
Hair comb 4 pack (males only)	0.55	0.01
Sun screen	42.85	0.82
Insect repellent	4.47	0.09
Talcum powder	2.94	0.06
Hair dryer	4.99	0.10
Hair cut kit (3-, 6- and 10-year old)	9.99	0.19
Sub-total	140.50	2.69
35-year-old Female		
Deodorant, 175g	3.26	0.06
Toothbrush	7.40	0.14
Dental Floss	3.94	0.08
Facial cleanser, 100ml	14.48	0.28
Razors, 8pk	8.13	0.16
Hair cut	117.00	2.24
Lipstick	3.97	0.08
Foundation, compact	10.45	0.20
Mascara	4.65	0.09
Nail file, 20 boards	0.69	0.01
Tampons, 20 per pk	40.46	0.78
Sanitary napkins, 20 per pk	6.11	0.12
Sunglasses	12.48	0.24
Watch	3.90	0.07
Watch band	2.98	0.06
Watch Battery	5.00	0.10
Earrings	12.95	0.25
Hair bands, 6pk	1.69	0.03
Cosmetic purse	0.40	0.01
Cosmetic bag	0.90	0.02
Hair comb	1.08	0.02
Hair brush	1.90	0.04
Perfume	15.30	0.29
Moisturising cream	18.62	0.36
Sub-total	297.69	5.71
40-year-old Male		
Deodorant, 175g	3.26	0.06
Toothbrush	7.40	0.14
Dental Floss	3.94	0.08
Hair cut	58.50	1.12

Personal Care Budget (continued)

Items	Cost per year (\$)	Cost per week (\$)
Sunglasses	12.48	0.24
Watch	3.90	0.07
Watch band	2.98	0.06
Watch battery	5.00	0.10
Hair brush	1.90	0.04
After shave	9.21	0.18
Moisturising cream	9.31	0.18
Toiletry bag	0.60	0.01
Razor	0.42	0.01
Razor blades	71.65	1.37
Shaving cream	53.84	1.03
Sub-total	244.36	4.69
 6-year-old Girl		
Toothbrush	7.40	0.14
Dental Floss	3.94	0.08
Sunglasses	8.98	0.17
Hair bands	1.69	0.03
Hair comb	0.70	0.01
Hair brush	1.90	0.04
Haircut	free - use of haircut kit	
Sub-total	24.60	0.47
 14-year-old Boy		
Toothbrush	7.40	0.14
Dental Floss	3.94	0.08
Hair cut	39.00	0.75
Sunglasses	12.48	0.24
Watch	2.90	0.06
Watch band	2.98	0.06
Watch battery	5.00	0.10
Hair Brush	1.90	0.04
Medicated face wash	19.31	0.37
Pimple cream	8.12	0.16
Deodorant 175g	3.26	0.06
Mouthguard	5.00	0.10
Sub-total	111.27	2.13
 Total Health (all household members)	818.41	15.70

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CHAPTER 13: FOCUS GROUP INPUT

13.1 The Role of Focus Groups in the Budget Standards Project

In 1899, Rowntree set out to demonstrate that a significant proportion of the families of the working population of York lived in 'primary poverty' and were unable 'to obtain the minimum necessaries for the maintenance of merely physical efficiency'. Rowntree's idea was to show that his budget was an irreducible minimum and that any expenditure below this level would lead to starvation, ill health, perhaps even death (cited in Ringen, 1987, pp. 151).

For his food allowance he relied on contemporary developments in dietetic science. The costs of fuel, rent and clothing came from his research into actual working-class expenditure. However, it has often been pointed out that Rowntree included in his minimalist subsistence budget tea, a commodity with no nutritional value, but one which social custom deemed a necessity in England at the turn of the century (Ringen, 1987). Tea is a social, rather than a physical necessity.

This anecdote illustrates how intimately community standards are associated with the definition of need. It follows that any serious budget standard needs to be firmly rooted in social standards that are broadly accepted in the community. A set of budget standards devised without reference to the community would be bound to fail.

This is why focus groups have always been an integral part of the BSU strategy for developing indicative budget standards for Australia. However, in thinking about how focus groups contributed to the process of developing the BSU budget standards, it is worth recalling some of the lessons learnt from the earliest budget standards.

Past research indicates that among the many roles which focus groups can serve (Morgan, 1993), three have particular relevance to the budget standards project: to act as an initial 'sounding board' for the appropriateness of the estimates; to identify the extent to which there is a consensus on the research findings; and to give the findings greater legitimacy.

As noted in Chapter 2, the focus groups in the BSU budget standards project were designed to serve three main roles:

- to provide comment on the composition of the preliminary budget standards once these have been derived and to suggest areas of improvement;
- to discuss the costed budget standards, to advise where amendments are required; and
- to provide guidance on aspects of the customisation of the basic standards.

* This chapter was prepared by Michael Bittman, Marilyn McHugh and Peter Saunders. The authors would like to acknowledge the assistance provided by the following people who developed and organised the Sydney and Victorian Focus Groups. Peter Davidson, Kathy Griff and Elizabeth Connelly from the Australian Council of Social Service in Sydney and Tim Gilley from the Brotherhood of St. Laurence in Melbourne. Special thanks are also due to all the participants of the various Focus Groups, without whose active involvement it would not have been possible to produce the valuable information summarised in this chapter.

The Appropriateness of Focus Group Methodology

The method of studying opinions, attitudes and emotions through focus groups dates back to work on the significance of propaganda undertaken in the midst of the second World War. A group of respondents would be shown a propaganda stimulus: perhaps newsreels would be shown or pamphlets distributed or a radio broadcast would be replayed. Then respondents would be asked to comment about the impressions these images stimulated.

These groups were particularly useful for testing hypotheses about the effects of specific elements of content, and to alert researchers to unanticipated interpretations and meanings. For example, the researchers found that 1943 documentary film showing militaristic youth groups in Nazi Germany 'increased the proportion of men in the experimental groups who believed that Germany had a much stronger army than the United States' (Merton, Fiske and Kendall, 1956, p. 82). Scenes that the film's director presumed to show the 'regimentation' of Nazi society were unexpectedly taken as proof of their exceptionally thorough training.

Since there is a basic similarity between trying to persuade through propaganda and influencing opinions through advertising, focus group research quickly became a standard tool in marketing and in the evaluation of advertising campaigns and communication strategies generally. Most packaging and many large advertising campaigns are 'tested' through this kind of research.

More recently, focus groups have been used in public policy settings, including program evaluation. Focus groups can be set up rapidly and, compared to survey research, are relatively cheap to run and provide qualitative data.

The popularity of the focus group research technique is in part due to the accessibility and drama of authentic, direct quotations from participants' conversation. Most survey research usually asks respondents highly structured questions. Survey questions which are not structured—so-called 'open-ended' questions—where the respondent can provide whatever answer they would like are both uneconomic to code and often yield disappointing results.

The advantage of most qualitative techniques is that they allow respondents to define the situation and express their own meanings, interpretations and priorities. It is a characteristic human action that the world is perceived as a meaningful place—that is as already interpreted.

Meaningful interpretation organises perception, it selects objects for attention, reducing the role of everything else to background. Interpretation shapes affect, suggesting the appropriate emotional states, which in turn orients action.

Social action is a process of orientation to meanings. A rock in a field has an entirely different meaning when one knows it is the boundary marker of a rifle range. When one encounters a group of people walking in the opposite direction engaged in animated conversation, one walks around them not between, as though the social space between these friends was joined by invisible threads of conversation.

Very often for social policy researchers, as well those marketing products and designing advertising campaigns, these meanings that humans use in orienting their action in a given situation are precisely what is to be investigated. In such situations, focus groups rather than survey research is the more appropriate technique.

As could be seen in the example of the documentary about the 'regimentation' of Nazi Germany, assuming that one can anticipate the meaning that actors will attribute to an event can lead to serious error. As a result, apart from setting the boundaries of the topic, focus groups are generally non-directive. This allows respondents to say what they think and express what is meaningful for them.

A further characteristic of focus groups is that they are particularly useful in situations where there is a strong research interest in group processes and the development of consensual standards. Indeed this is one of the advantages focus groups have over individual interviews.

This brief summary of some of the advantages of focus groups explains why they were introduced as part of the BSU research. In particular, focus groups appeared to be the most effective way of obtaining some initial feedback on the costed budget standards—a process which inevitably involves giving the kind of informed and focused consideration to a complex set of calculations that is more likely to emerge from an interactive and relatively unconstrained group discussion of the budgets than from a series of independent assessments prepared in isolation from each other.

13.2 Organisational and Procedural Issues

The budget-standards project has used two waves of focus groups to inform its development of the BSU budget standards. In general terms, the first wave was used as an aid in determining the social boundaries of deprivation and excess, while the second wave was used to test the relevance and accuracy of the preliminary budget standards and to refine conceptions of the special needs of groups, such as households in rural locations, large families, non-resident fathers and people with a disability.

Participants for these groups were recruited independently of the BSU research team by two of Australia's leading community organisations. The Australian Council of Social Service (ACOSS) recruited the participants for Wave One, which consisted of four separate focus groups. Experience with this kind of research has shown that the more people in the group resemble each other in terms of their social characteristics, the more freely they express and exchange opinions. Socially heterogeneous groups, by contrast, are typically subdued and uncommunicative.

ACOSS was instructed to recruit four groups of around 10 people, each with similar social characteristics drawn from the following categories:

- a group of working-age single people;
- a group of aged people (singles and couples);
- a group of working-age couples with children; and
- a group of sole parents.

Each group met separately to consider the budget standards most relevant to the circumstances of its members. All four groups were asked to provide specific advice on how standards varied according to labour force status.

A comparison of outcomes from the first and second groups provided information about age-related variations. The third and fourth groups provided direct information and advice on the specific costs of children and the fourth group also provided information about the costs of

sole parenthood. Groups from these same categories of people became the 'core focus groups' in the project, since they were also to form part of Wave Two (see below).

ACOSS was sub-contracted to recruit and conduct the four focus group discussions and to provide a report summarising the findings.¹ All focus group sessions were recorded. ACOSS provided the venue, drinks and food, and organised a small cash inducement as compensation for participation. They also provided a moderator (Cathy Griff) and note-taker, and submitted a written report. The group of aged people met in the middle of the day, otherwise all groups were conducted in the early evening.

Wave One focus groups all met in Sydney, in October/November 1996. In the Second Wave of Sydney meetings, which took place in April 1997, care was taken to avoid meeting dates in school holidays for groups containing parents.

A second wave of focus groups, involving a similar sub-contracting arrangement with ACOSS, not only included the same four categories of people as in Sydney, but also a further series of groups recruited by the Brotherhood of St. Laurence in Victoria.

In this program of additional (Victorian) focus groups five separate groups were recruited:

- a group of parents of large families;
- a group of non-resident fathers;
- a group of people with a disability;
- a group of households (with children) living in a regional city; and
- a group of households (with children) living in a rural location.

With the exception of the parents of large families, these Victorian focus groups were chosen to explore how appropriate the budget standards were to circumstances of special groups, to suggest areas for attention, and to provide a preliminary guide to what needs to be considered when customising the basic standards.

The meeting of the Victorian focus groups took place in the week beginning 7 April 1997. All focus group sessions were again recorded. The Brotherhood of St. Laurence provided the venue, organised the cash inducement for participation, and provided the appropriate drinks and food.²

BSU researchers, Marilyn McHugh and Michael Bittman alternated as moderator and note-taker and provided written reports about each group. The group of people with a disability met in the middle of the day, otherwise all groups were conducted in the early evening.

Wave One—The Social Boundaries of Deprivation and Excess

In November 1995, Peter Travers carried out a Pilot project on the measurement of relative deprivation among DSS clients (Travers and Robertson, 1996). The aim of the study was to capture 'client perceptions of their standard of living, demographic and other characteristics, and deprivation in terms of a range of items from lack of the basics of life to financial strain,

A copy of the ACOSS focus group report (Greff. 1997) is available on request from the Budget Standards Unit.

² A written report on the Victorian focus groups was not requested of the Brotherhood of St. Laurence, in part for reasons of timing, but also because the direct participation of members of the BSU research team in each meeting made a separate written report unnecessary.

income, health and morale. Four focus groups drawn from a cross section of Adelaide residents assisted in constructing the questions on the 'basics of life' (Travers and Robertson, 1996).³

Travers pursued Mack and Lansley's idea that deprivation should be conceived as 'an enforced lack of socially perceived necessities' (Mack and Lansley, 1985, p. 39). This presupposes a consensually defined idea of necessity. Following Hallerod's (1994) idea of a four point scale stretching from not necessary to very necessary, Travers used his focus groups to identify 'a list of items that might potentially be regarded as 'necessities' (Travers and Robertson, 1996, p. 4).

However, Travers was chiefly interested in developing a small number of items that could form the basis for development of an index of deprivation. The BSU, on the other hand, needed to know what items identified a budget as modest but adequate and low cost in Australia in the 1990s.

Crucially, the BSU needed detailed advice on those items which, when excluded from a low cost budget, signalled a descent into deprivation. In short, the BSU was interested in more exhaustive information on commodities and on where to draw the boundary between low cost and modest but adequate.

One of the first rules of social research is not to ask respondents to supply answers to questions where they either cannot answer the question or they have no serious opinion on the topic. In order to avoid such difficulties, the focus group respondents were asked to describe a standard of living by specifying a basket of goods. When people want to characterise the high standard of living among the wealthy they usually do this by describing commodities only rich people can afford to purchase: a luxury car; a yacht; or a house with absolute waterfrontage, many bedrooms, multiple bathrooms and garage space for more than one car.

The first issue was to determine priorities. What items do Australians think they could manage without and, conversely what items do they consider essential or necessary? The task of deciding this was put to the focus groups by asking the following question:

Tell me some of the items you and your family would or could go without if your weekly income was reduced permanently by \$50 to \$100 a week.

This was followed by a question allowing participants to define the two standards of living:

What do you think are the differences in living standards between households on low cost and modest but adequate budgets?

The next step was to ask which household bills caused difficulty meeting payments and what techniques were employed when respondents needed to be frugal.

Respondents were then shown a prompt card containing a list of goods and services, which earlier studies had shown to be potential markers of social deprivation and/or exclusion. The group was invited to discuss whether they considered the items on the list necessary for themselves and for other similar people living at a low cost standard.

³ This project was inspired by the work of Townsend (1979), Erikson and Aberg (1987), Mack and Lansley (1985), McDonald (1993) and Travers and Richardson (1993).

Reassuringly, the group raised many of the issues anticipated by the BSU. The focus group was then asked to consider a range of more directive questions about items on which the BSU was seeking direct guidance. These ranged from questions concerning housing and holidays, to make-up and jewellery. A copy of the Issues Schedule for Wave One of the focus group research is provided for information in Appendix 13.A.

13. 3 The Core Focus Groups: Main Results (Wave One)

Asking respondents what items they would forego if their income was substantially reduced produced an initial mood of shock. One participant in the working-age couples with dependent children group said;

\$100 is not much to spend but it's a real lot to do without.

Working-age respondents said that having to manage with this hypothetical drop in income would make them feel like 'below-average citizens'. Among the older-age focus group, the general feeling was that this was not a hypothetical exercise but something many of them had experienced in the recent past. As one participant observed:

When you retire you have to face this for the first time because your income is reduced by half or more. So it's a pencil and paper and a bit of soul searching and a very judicious use of the dollar.

The most typical response to the prospect of a steep reduction in the capacity to spend was to cut back on meals out. Most felt this was the item of expenditure that was least necessary and the most 'luxurious' area of expenditure. Cigarettes and alcohol were the next most frequently mentioned items where it was believed that consumption could be reduced, though the groups did not propose abstaining completely.

Participants in the focus groups also considered going without certain items, but generally only as a last resort. Typically, respondents imagined that they would manage by reducing their expenditures. For example, some respondents talked about giving up the second car, although only the less-well-off respondents talked about giving up their only car.

Taking a more basic holiday, staying in on-site caravans rather than motels, not going away during holidays, were all explored before the option of not taking any holidays at all was considered. Only single parents spoke about having to give up a range of items outright. These included school excursions, school photos, speech therapy and occasional long day care.

Most people agreed that reducing their expenditure was the most desirable way of managing this catastrophe. Telephone expenditure would need to be tightly controlled, most participants agreed, and calls to overseas relatives would be 'one of the first things to go'. Some thought they would have to spend less on clothes, entertain less often, refuse invitations to avoid having to reciprocate, or give more modest gifts at Christmas time. Compact discs, magazine and theatre tickets were all items mentioned where expenditure could be curtailed.

A great deal of the discussion revolved around ways of getting greater value for money. Respondents thought this could be done by buying cheaper food (meat instead of avocado, cheeses and olives), concentrating on generic (No Frills) brands and using flexi-plans to minimise expenditure on utilities and telephone calls. Many respondents, especially older respondents, felt that they were already practising these kinds of economies but would have to do so more diligently.

When asked what distinguished a modest but adequate from a low cost living standard, many participants felt that the differences showed themselves most strongly in housing. Housing locality was a good indication of standard of living, respondents felt, as was the capacity to purchase a home.

Households living at the low cost standard would have to rent and some modest but adequate households would choose to rent, but only modest but adequate households would have the capacity to purchase a home. Those living at the low cost standard would struggle to maintain their housing and prevent it falling into disrepair. Similarly, only modest but adequate households would have any choices about their children's education.

Holidays were another item which marked the boundaries between the two standards. According to the focus group respondents, low cost households would have to take less luxurious holidays or take their holidays at home. In general, leaving the house for social outings was, like holidays, something that modest but adequate households could do in an unrestricted way, whereas low cost households would have to minimise outings because outings meant expense. Participants in the group of older people confirmed this view.

The theme of constrained choice in expenditure was continued by the lone mothers, who argued that at the low cost standard they found it difficult to run a car, find money for better quality food, or cash for entertaining their children's friends. They found it difficult to replace white goods, and the constrained choices denied them access to anything but the most basic medical and dental treatment.

The measures proposed to cope with a drastic reduction in income largely accorded with the results of earlier research on what is subjectively experienced as deprivation. The reassuring aspect of this question was that participants spontaneously raised the issues and set priorities that were consistent with the remaining items in the interview schedule.

The items the groups singled out as the most 'luxurious' were roughly the same as those highlighted in the relative deprivation literature. This impression was reinforced by the discussion of what distinguished the two standards of living.

Since the discussion of these issues followed down anticipated paths, the BSU judged that it could safely assume that the more directive questions raised later in the discussions did not introduce any serious or systematic interviewer bias into the proceedings.

It is worth noting that the participants' responses were affected by whose standard of living they were discussing. Many thought that other people could live without a great many more items than they themselves could live without. Indeed, the standard of living that others were supposed to be able to tolerate was often very low indeed.

The group facilitators were instructed to concentrate on whether group members would feel deprived if they themselves had to manage without an item. It is worth noting in passing that each of these dual standards—what others can tolerate, and what oneself can—is influential in different social contexts, and that they have an effect both on what people will accept as an adequate standard of living for themselves and on the politically acceptable level of benefits for others.

In discussing regular household bills, it was apparent that all groups considered that some bills were difficult to pay. Among younger respondents, bills associated with their car—registration and insurance—were frequently mentioned as causing difficulties. Many older respondents

often had already given up their car, but housing expenses, such as body corporate fees, council rates and house insurance figured most prominently in their discussions.

Practically all respondents mentioned phone bills, while sole parents found paying for heating also very difficult. All groups employed much the same strategy to lower bills where possible installing insulation, restricting the use of water and using electricity in the least wasteful manner.

A discussion of the housing occupancy standards (see Chapter 3) showed that Australians are more relaxed about younger children of different sexes sharing a room. Most respondents felt that children up to the age of 10 years could share, compared with the original Canadian standard which proposes sharing only among children up to the age of five years.

Although they professed general agreement with these standards of housing occupancy, most working-age couples had one room per child and some had even built extensions to ensure the norm of one child per bedroom was maintained. Great emphasis was placed on the need for a separate study/bedroom for older children completing high school and facing public examinations.

Responses to the issues of what were necessary items for any household made it clear that a telephone was universally felt as necessary to participate in society. To quote two participants:

/t is an anchor to the outside, (older female)

Children need to be able to phone in if they stay. You are by law expected to know where your kids are. (female sole parent)

Townsend's original scale of relative deprivation included the item a 'best outfit to wear on special occasions'. Not owning such an item in Britain in the 1970s was considered to expose the poor to intolerable shame.

However, Australians took a more varied view of the situation. Older respondents thought it was necessary, but others did not think it was so important, arguing that borrowed or second-hand clothes might do. As one participant said:

*If it is a choice between wearing second-hand clothes and putting food in your mouth I think second-hand clothes would win hands down.
(older female)*

For job interviews, however, most agreed that a good outfit was essential.

There was wide agreement that everyone needed two or three pairs of good shoes, but it was not seen as essential to have new clothes (except underwear and socks). Respondents felt that the opportunity to purchase new clothes should be available 'at least once in a lifetime'.

Mothers acknowledged that they would be ashamed to clothe their children exclusively in second-hand clothes. Parents agreed that children above a certain age had a right to at least one prestige brand t-shirt, which they felt was important for social acceptance and self-esteem.

Focus group participants thought that people did go without adequate heating because they could not afford it and they described the measures they took to reduce their own heating bill.

'If you were at the bare bones of existence you could put a blanket on' was the way one respondent put it. But most thought that an adequately heated living area was a right.

/ wish that I could afford to put the heater on when we want it rather than sitting there in the middle of the day rugged up in jumpers and blankets watching TV. I think it really is essential, (female sole parent)

Practically everyone thought owning a television was a basic necessity. Buying a second-hand set was seen as preferable to renting one. A television was seen as a way of saving the expense of other out-of-home entertainments.

Most participants agreed that a car was an expensive item to maintain and it was mentioned as an item that one might have to do without in an emergency. Some participants related personal anecdotes about how they had been forced by economic circumstances to give up a car (often the second car, but frequently the first car).

This choice seemed to be most pointed among the participants above working age. Some of this group thought that as you got older it became easier to do without a car but others disagreed. 'My car is my only luxury' pointed out one older female participant. Many parents stressed the importance of a car for driving children to sporting and other activities but some relied on car pooling to help with this.

Respondents were asked to rank different goods, starting with the easiest to live without and ending with the most difficult to manage without. The order suggested was:

1. A car
2. A television
3. A washing machine
4. A refrigerator

Despite its apparently low ranking in this list of most important items, most respondents classed the washing machine as a necessity and dismissed laundromats as too costly in the long run.

Most people viewed holidays away from home as significantly improving their subjective sense of well-being. On the other hand, holidays were considered expensive and something of a luxury, and many felt that in straightened economic circumstances, holidays would have to be forgone.

The consensus that emerged was that the low cost standard should include an allowance for holidays, but less frequently than the modest but adequate standard and involve staying at lower priced accommodation.

Focus group participation also drew attention to the need for money to cover incidental expenses associated with holidays. Thus:

You have got to allow at least \$250 to \$300 a week easy, unless you are very, very careful, It is very hard with kids too because they want treats, (female sole parent)

The consensus that emerged, especially among parents, was that overnight trips involved more organisation, difficulty and expense than pleasure. However, practically all people agreed that day trips were worthwhile.

All groups thought that if one lacked the capacity to enjoy out-of-home entertainment, then one was deprived. This applied to younger single women, parents of workforce age, sole parents and older respondents. The most frequently mentioned activity was eating out: in clubs for older respondents, or at restaurants for working-age respondents.

Sole parents felt deprived by their inability to 'go out' regularly. One reported that:

/ had a night out about a month ago and that was my first one in over a year, (female sole parent)

Many sole parents agreed that 'nights out' were an activity they sacrificed to have more money to spend on their children. All parents mentioned the costs of hiring a baby-sitter, but most said they avoided these costs by persuading friends or relatives to 'sit' for them. Grandparents, both older and younger respondents agreed, were an important source of child-minding.

The overwhelming majority of participants in all focus groups agreed that children's birthday parties are a necessary part of any adequate standard of living. All parents complained about the growing expense and over-elaboration of children's parties. Sole parents sought ways to reduce the cost of children's birthday celebrations by holding their parties in public parks and arranging for friends to contribute food.

Surprisingly, most respondents viewed pocket money as something that had to be 'earned', either through work outside the home or in exchange for the performance of household chores. Thus:

// starts off when they are old enough to do some work around the house, it's a reward scheme, (married working-age female)

Most sole parents did not give their children pocket money because they could not afford to. One participant felt that pocket money was important and regretted that she could not offer her child any money. She commented;

// teaches them how to save their money and the value of money, (sole parent)

Most participants thought a childhood without toys was a deprived childhood. A bicycle for children of the appropriate age was considered essential, although it did not need to be new. Sole parents staggered their purchases of toys and all parents were grateful for the financial assistance of grandparents in acquiring toys for their children. One sole parent felt that she needed to purchase a home computer so that her children would not be educationally disadvantaged.

Respondents were generally sceptical about the necessity of make-up and skin care products. They considered many products were over-priced or not truly superior to generic brands that could be purchased in supermarkets. There was a consensus that sun-protection lotion, lipstick, moisturiser, razor blades, shampoo and hair conditioner are all essential items.

A watch was considered a basic necessity and generally not classed as jewellery. The attitude towards buying jewellery was that inexpensive earrings were often worn, but few felt that having no jewellery meant serious deprivation.

Most focus group participants felt that one should be able to afford one newspaper a day. A significant number of people thought magazines connected with their hobbies or interests were important to their sense of well-being, although sole parents reported that they could rarely afford magazines.

Participants in all focus groups believed that the ability to purchase alcohol was a social necessity and that it should not be viewed as a luxury item. For younger single people, it was seen as important in reducing social isolation. Sole parents agreed it was something they were not prepared to sacrifice.

A regular hair cut (every six to eight weeks) was another item considered to be a basic essential. It was agreed that being deprived of this damaged people's self-esteem and dignity.

Attitudes towards entertaining reflected mixed experiences. Older people reported being wary of the costs, while younger single people considered it essential. Most thought the cost revolved around the expectation of providing food. There was a consensus that children should be able to bring friends home.

The orientation to gardening divided sharply by age, with working age respondents generally treating it as a chore, while older respondents thought of it as a form of relaxing recreation.

There was a general consensus that household contents insurance was desirable, although for income constrained sole parents it was often unattainable. Single female respondents (with and without children) felt that a feeling of security regarding person and property was very important to their overall sense of well-being.

Most participants did not have private health insurance. Those with children were the most likely to think it would be advantageous, perhaps even essential.

Regardless of their personal standard of living, everyone thought that it was very important to seek out the retail outlets with the lowest prices. There was a consensus that everyone should be prepared to spend significant time travelling to achieve this end. There appeared to be no level of income at which respondents thought this effort unjustified.

13.4 Wave Two Results: Testing The Adequacy of the Preliminary Budget Standards

The second wave of BSU focus groups leant heavily on the experience of the New Zealand Poverty Measurement Project, which has been engaged in a multi-agency programme of focus group research 'to determine a level of income which will give a standard of living which provides for a minimum adequate household expenditure' (Stephens, Waldegrave and Frater, 1995, p. 88).

This is an example of a consensual approach to poverty measure which attempts to establish a standard of poverty based on the experience and attitudes of members of the community (Saunders, 1994, p. 236).

Walker (1987) has argued that respondents need time and information to make reasoned judgements about minimum adequate income, and that 'the consensual definition of a monetary poverty line would be derived from the deliberations of a series of group discussions. Groups, perhaps in the first instance homogeneous with respect to family type and income, would be asked to agree (through a process of negotiation) accepted minimum baskets of goods, and

hence budgets, based on their own notion of adequacy' (quoted in Stephens, Waldegrave and Frater, 1995, p. 91).

The advantage of the consensual approach to poverty measurement is that it provides direct information about the community's own view on what is an adequate standard of living. It is important that a budget standard, which necessarily incorporates the normative judgements of experts, coincides in large measure with the community opinion—that the budget standard is socially and culturally relevant and meaningful. To this end, the New Zealand procedures have been adapted and improved.

The advice of the BSU Steering Committee, which contains experts with considerable experience in collecting expenditure information (see Appendix 2.B), was that focus group participants would be unlikely to be accurately aware of their own expenditure requirements. One of the oldest rules of social research is that it is a mistake to ask respondents about things that they do not know because they will feel obliged to provide an answer.⁴

Further confirmation came from the frequency of statements by participants in the Wave Two focus groups that the whole exercise of talking about their expenditure had shown them that they 'really didn't have a clue' about what they spent. Drawing a more accurate summary of their own expenditure standards and its associate costs aroused considerable anxiety and was an experience that many declared they found 'frightening'.

At the suggestion of a BSU Steering Committee member, Jennifer Kelly from AGB-McNair, the BSU developed a mini-expenditure diary to assist with the focus group discussions. The purposes of this diary was to act as an *aide-memoire*, a prompt to prepare respondents for a consideration of the expenditure standards. The diary covered most facets of expenditure, using the most convenient time period—weekly expenditure on food, quarterly expenditure of utilities, yearly expenditure on car registration and insurance costs, and so on.

While the diary was relatively detailed, the BSU was wary about needlessly increasing the respondent burden, so it was designed to be capable of being completed in about 20 minutes. The diary was piloted among volunteers and revised after debriefing sessions with them.

Respondents in the focus groups were told that they needed to complete the diary prior to attending the group meeting and the cash inducement was increased to take account of this extra burden. An example of the actual form of the mini-expenditure diary is contained in Appendix 13.B.

Since the intention of the Wave Two focus groups was to provide an opportunity for participants to comment on the composition of the preliminary budget standards once these had been derived and to suggest areas of improvement and amendments, as well as to provide guidance on aspects of the customisation of the basic standards, a way of presenting a complex and detailed set of preliminary budgets had to be devised.

⁴

Some confirmation of this problem can be found in the published material from New Zealand Poverty Measurement Project. Respondents in these groups typically provided answers in round figures, multiples of five or 10 dollars. Such findings may say more about group processes in reaching a consensus than about adequate levels of expenditure.

The budget of the most appropriate household types were selected and special stimulus package folders were prepared.⁵ The stimulus package consisted of a ring-back binder containing:

- a summary sheet showing a one line estimate of the weekly and yearly expenditure on each of the nine component budgets and a preliminary estimate of total expenditure for each household type; and
- a more detailed breakdown of major items or groups of items in each of the individual component budgets. These preliminary estimates were expressed in the same time periods as found in the mini-expenditure diary.

The moderator of the group then systematically worked through a discussion of each of the individual component budgets and ended with a discussion of the total budgets.

Main Overall Results

The first wave of focus group discussions contributed significantly to formulation of the modest but adequate and low cost budget standards and guided a great many individual decisions about what to include or exclude from each component budget.

The following discussion begins by reporting on the overall focus group responses to the preliminary budget standards presented to them. It also incorporates main findings of the Victorian focus groups, those dealing with the costs of large families and the groups conducted at a regional centre and a rural location. Section 13.5 contains a more systematic and detailed summary of the main points to emerge from each of the five Victoria focus groups.

Housing Costs

Housing costs vary around Australia and within Sydney. The general consensus among respondents in the Sydney focus groups was that the rents included in the BSU housing budgets seemed below what they believe you would need to pay.

The majority of participants in the sole parent group received significant concessions on the public housing rents. Comments received from this group include:

'The advantage of public housing is that it's always relative to your income... \$135 a week for a public renter that's quite high.'

and.

⁵ The following draft summary budgets used in the stimulus package were presented to the various focus group participants:

- a single female aged 35;
- a single female aged 70;
- a couple both aged 70;
- a couple family with a girl aged six and a boy aged 14 years;
- a couple family with two girls aged three and six and two boys aged 10 and 14; and
- a female sole parent with a girl aged six and a boy aged 10.

'I live in public housing and therefore pay 25 per cent of my income in rent but mine is \$45 per week but I haven't seen a 3-bedroom unit for \$135 for... over 13 years.'

These rent concessions had a very large effect on their ability to achieve an adequate standard of living. Respondents in Melbourne also thought the BSU rent estimates were 'a conservative estimate', while those from regional locations thought they were about right. The rural group thought that local rents were considerably cheaper.⁶

Among those purchasing homes in regional and rural locations, there was a tendency to pay the maximum repayment that could be managed, and to upgrade to houses of higher quality. As one female participant commented:

'I wouldn't pay that much in rent but I'm quite happy to pay that on mortgage.'

Owners of home units drew attention to the estimate of the cost of body corporate fees, which they felt understated the true cost. One mentioned that:

'I know someone in Kogarah who pays \$1,000 a year in body corporate fees.'

Sole parents complained about the leaks, broken fittings and poor maintenance of the public housing stock, a situation which left them feeling powerless. The following interchanges reveal this:

Moderator:

'Are you living in a place that you're reasonably content with?'

Female A:

'No.'

Female B:

'I would be, except that it's just needed so much repairs its not funny. For the last year...we've been moving out and packing up and packing down because the house is public housing and it's full of termites.'

Moderator:

'And you can't get those kind of things looked at?'

Female B:

'Oh well, yeah, it's just that... we're looking at having to move out of the house. I'd like to stay there because I like the house but obviously you know... it's maintained... really bad.'

⁶

It is worth noting that in spite of these opinions, the rents incorporated into the final BSU budget standards for renter households were in fact lower than the preliminary estimates provided to the focus groups. This reflected the decision to reduce the published figures on rent levels by eight per cent so that they reflect 'sitting rents' rather than 'access (or entry) rents'; see the discussion of this issue in Chapter 3.

Moderator:

'Maintenance. And what about others... i mean...are you able to maintain the place reasonably adequately or below what you would like it to be?'

Female C:

'Its definitely below...you don't have much choice in public-housing. I've lived here six years in and its about as low as you can get asfar as I'm concerned.'

Most people, regardless of household type and location, indicated that they had taken up contents house insurance.

Energy

Households with children felt that they faced extra energy costs. They told many anecdotes about children 'wasting' electricity. One parent complained that his children began to 'devour electricity' as soon as they could reach the light switch. Another described walking into a child's room to discover no occupant but both the heater and the cooling fan on at the same time. All felt that children understood little about conserving energy and reducing consumption (and costs).

Sole parents complained about the poor insulation of their public housing accommodation. There was a wide variation of energy costs among the older participants and a small number felt their energy cost were lower.

Rural residents said that the energy expense allocated did not cover their needs for heating. In their inland setting, nights were colder and they often experienced unseasonably cold weather. Rural residents also used different fuels to urban dwellers, with extensive use of LPG and wood fuels.

Food

Discussion of the food budget quickly brought to the surface the distinction between expert normative judgements and the typical pattern of eating and food expenses. The consumption of meat was typically much higher than the BSU estimates proposed. That'd be just one meal for me' commented one (male) participant referring to the meat content of the BSU food budget.

Participants also reported much lower outlays on fresh fruit and vegetables, while most participants also found the allowance for take-away food to be too low. Comments here included:

'I buy my lunch nearly every day—there goes five dollars straight away.' (single female)

'We sort of have a tradition offish and chips every Sunday night...not much change out of 30 dollars.' (rural male)

Parents with children confirmed that the expenses of feeding teenage boys are considerably higher than those of feeding younger children. The allowance for alcohol in the food budget was greeted with almost universal derision. One respondent commented wryly that 'the more kids you have the more the need for alcohol!'.

Generally, the pattern of food purchases described show that few Australian households conform to expert dietary recommendations. The food baskets described were high in fats (and consequently, energy), low in complex carbohydrates, contained above the recommended levels of alcohol and generally had a poor nutritional balance.

Clothing and Footwear

The social significance attached to clothing varied enormously among the focus groups. For younger single females, it was considered an essential item, closely connected with maintaining self-esteem. This group generally considered the estimated BSU budget for clothing and footwear to be too low.

Older participants felt they had a stock of serviceable garments and expected long life-times from their existing stocks. This group only bought clothing for special occasions. Among working-age respondents, there was a recognition of the wardrobe demands of employers. This particularly affected one sole parent, who had been admonished by her employer at TAFE for her 'low dress standards'.

Rural participants wore 'leisure' clothes like tracksuits and sweatshirts rather than the 'smart causal' wear favoured by their urban counterparts. The rural group also drew attention to the costs of outfitting the whole family with gumboots. One participant commented:

'...gumboots; you can buy them sizes too big [overalking, unclear] because [unclear] they just kick them off so they can last for a few years, but a good really good quality pair of gumboots for a kid can be about 25 to 30 dollars...' (rural male)

Parents again spoke about older children's attachment to designer label clothes. Younger children would accept any clothes including hand-me-downs but older children would not. As one mother commented:

'They'll get to about 12 years old and they'll wear Target stuff. After that, look out!'

Children's demand for designer-label clothes was independent of location, and was just as strong in regional and rural settings.

This must have been a potential cause of financial hardship because parents reported how to achieve the effect of children's designer clothes without having to pay for them. One couple reported that their eldest son had taken part-time employment so he could buy his own designer-label jeans, while a sole parent described how she sewed designer logos onto ordinary clothes.

Many parents coped by limiting the purchase to 'one very good t-shirt a year'. They also remarked that often the quality of these expensive garments was higher so there would be a saving attributable to longer lifetimes.

Children's rapid growth meant households with meagre resources struggled to clothe their children. In response to questioning about the expectation of how long clothing and footwear items were expected to last, there were some who responded by saying 'about two years'. However others disagreed.

Practically all participants were critical of the BSU's estimates for the yearly cost of shoes. They felt this was unrealistically low and the BSU responded to this criticism by significantly increasing the quality of footwear included in this budget.

Household Goods and Services

It was difficult in the two hours available for the focus group to discuss in any detail the hundreds of items that go to make up the households goods and services budget. Most comments were limited to the appropriateness of the items listed and some advice was received about the relevance of the assumed lifetimes.

Most respondents agreed that all the furniture listed was necessary and generally appropriate. However, parents queried the lifetime attributed to furnishing in households containing children, as illustrated in the following exchanges:

Moderator:

'The other thing we've done in this budget is that, for the furniture, we've assumed that if there are kids around we should knock a little bit off the lifetime.'

Sole mother:

'Oh definitely.'

Father:

'My son...as soon as he learnt to walk, he destroyed the stereo within three months.'

Rural male:

'...but as far as, like, furniture and that goes, my children are at the wrecking age. We sort'a little hit thinking...maybe we'll just hang on a bit longer let them wreck what they've got and then when they get a bit more older and responsible...we're at that mentality at the moment.'

Most households had acquired some furniture either second-hand or as a hand-me-down. The rural community participants seemed very aware of the possibility of passing on children's furniture and toys. The exchange of items that were surplus to one family but valuable to another was a significant expression of social solidarity in rural communities.

Some groups were critical of the lifetimes attributed to small electrical appliances and linen. The absence of pictures to hang on the walls was also of concern to the younger group of single women.

Health

Older respondents and parents expressed the view that health costs were higher than those estimated by the BSU. Older people felt that the costs of extra visits to specialists, dentists (for fitting dentures) and prescription drugs had been underestimated.

Parents complained of dental and orthodontic costs. Many agreed with the words of the family historian Edward Shorter (1977) that 'it was the duty of modern parents to send their children out into the world with straight teeth'.

Families also spent a large amount on over-the-counter Pharmaceuticals. One sole mother said:

'Non-prescription for me would be about \$100... i might only go twice or three times but 30 or 40 dollars in one go so like, 'cos I've got a three-year-old...' '

Single younger women queried the absence of an allowance for oral contraception (which most used). Regional and rural respondents pointed out that a key consideration in medical costs was travel (and sometimes short-term accommodation) in capital cities to visit specialists and hospitals.

There was a consistent mention of the use of 'alternative' or para-medical services, especially chiropractors. Victorian parents acknowledged the value of the school dental programs. Some working couples had health insurance cover but frequently complained that when they had been obliged to make a claim it had cost them more money than if they had had no cover at all.

Transport

Apart from the sole parents, most respondents relied on private cars for the bulk of their transport needs. These were hardly ever new cars, typically they were four-cylinder cars older than eight years and frequently well over 10 years of age. Most owned their car outright.

Participants rarely had any grasp of the depreciation or running costs of cars, apart from the weekly costs of fuel. Most treated car costs as inevitable and unalterable, official costs for a license and registration were beyond their control and when cars broke down they simply had to be repaired.

There was a very wide variation in the estimated costs of repairing and maintaining motor vehicles. Comments on the preliminary BSU transport budgets included:

'I'd say at least that, that's with nothing going wrong.' (sole mother)

'7 think thereabouts a thousand dollars I think.' (sole mother)

Moderator: *'Just for the services...you reckon?'*

'Yeah, mine's about 16 years old. So yeah.' (sole mother)

'Mine's like \$20 but I actually budget to that like I can't afford...so when I've used it up I sort of have to not use it basically.' (sole mother)

A few participants drove company cars and received free fuel, a benefit that was greatly appreciated and whose value was considered to be high.

Participants from the large family group claimed there were economies of scale in using the car to transport children to school. Mothers in families with children reported enormous stretches of time spent at the wheel of their cars ferrying children to and from recreational and social activities.

In the regional city, cars were considered more important because public transport was so poorly developed, and children relied heavily on their parents driving them to activities. Rural respondents felt that transport was one of the greatest expenses they faced, with large distances travelled each year and high rates of wear.

Comments from this group included:

'...we have to get the tyres replaced about twice a year which is two, three tyres 'cos we're going on gravel roads every single day and that kills it...' (rural female)

'...having friends over can be expensive because if my son has a friend over we have to drive 36 kilometres to get them home...' (rural female)

Most respondents also used public transport when they could. Some sole parents and older respondents had no car. Public transport costs among Sydney residents ranged from around \$11 to \$20 a week. Respondents above pension age repeatedly drew attention to the value of their travel concessions (the '\$1 a day' fare).

Most respondents used taxis as a last resort. However, there were a few occasions each year when they were obliged to use them for medical emergencies, females travelling late at night, shopping in the rain, and so on.

Leisure

Most respondents, including rural respondents took holidays away from home. Many felt that the cost of holidays in the modest but adequate budgets were too low. They felt that the accommodation would probably be more expensive and that there should be a loading for the extra costs (especially for food) associated with being away on holiday.

Rural respondents pointed out that, for some, going away involved the extra expense of paying for a farm manager to tend to animals and crops while they were away. For rural families, being away concentrated visits to theme parks, cinemas and other amusements into one highly expensive period a year.

Sole parents thought that one holiday away from home every three years was a reasonable expectation at the low cost standard. Many parents felt that they spend less on adult exercise (and many did little physical exercise themselves) but spent a similar amount accompanying their children to pools, paying junior sports fees, and so on. Sole parents kept the costs of outings down by bringing food and drink from home. Visits to the cinema were the most popular out-of-home adult entertainment.

Paying baby-sitters was a rarity. In households with children, multiple televisions were commonly reported. Children's toys were considered to be a large expense. Most parents reported that their grandparents bought many of the significantly expensive toys and recreational equipment owned by their children.

Personal Care

The cost of personal care was very difficult for respondents to discuss in isolation because for most it was an unknown fraction of their weekly supermarket bill. Respondents also thought of bags and jewellery as clothing accessories rather than part of a separate personal care budget.

Most women used make-up, but claimed they bought inexpensive brands. Rural women thought that it was not necessary to wear make-up except on special occasions.

Hairdressing cost were important and directly linked with dignity and decency by the older women respondents. Other respondents keep hairdressing costs low by applying hair treatments such as colouring, themselves. Parent often cut younger children's hair themselves and many praised the current fashion for 'buzz cuts' using the No 1. or No. 2 comb on the electric hair-clippers. Most rural households reported that they cut their own hair.

Respondents felt that insufficient money had been allocated for the purchase of handbags. Most women bought cheap earrings but otherwise preferred a small quantity of quality jewellery, although some participants observed that jewellery was often received and bought as a gift.

Overall Budgets

Turning to a consideration of the total budgets, two main reactions stood out. The first was shock. Participants agreed that having gone through the budgets item, by item they must be spending amounts very close to the estimated totals but they were unsure how they managed this. In some cases, estimated expenses apparently exceeded household net income.

Also, respondents had the choice between estimates for the low cost and the modest but adequate standard. Most described their expenditure in terms of these estimated standards. The younger single women, the working-age couples, the larger families and most of the participants in the regional city focus group compared themselves to the modest but adequate standard.

The sole parents compared themselves with the low cost standard. The older respondents and the rural respondents contained a mixture of people identifying with low cost standard and people identifying with the modest but adequate standard.

Overall, the comments received from the BSU focus groups proved to be extremely useful, both in confirming the validity of some elements of the preliminary budgets, but also in drawing attention to areas where revisions were needed. These latter areas were addressed in subsequent research, which generally revised the budgets in the areas identified by the focus groups as most problematic.

However, as noted earlier, it cannot be claimed with any degree of confidence that the final BSU budget standards would meet with universal agreement were they to be discussed by new (or even the same) focus groups. What can hopefully be asserted is that the worst of the problems with the preliminary budgets have now been rectified. There is still, however, the potential to expose the budgets to further focus group assessment, with a view to improved refinement—a process that should be seen as part of a regular review and revision exercise.

13.5 The Wave Two Special Needs Focus Groups: Main Results

Larger Families

Eight participants from an inner Melbourne area, all parents in households with three or more dependent children, discussed various issues of concern for larger families. Prior to respondents addressing the details of the various BSU component budgets, concern was expressed in regard to the cost of gifts.

Costs associated with gifts were seen as very important and as the discussion developed, respondents gave the impression that in families with a large number of children, gifts,

especially clothing, given by relatives to children was a positive transaction—that is, gifts in *exceed* gifts out.

When discussing the component budgets themselves, the participants frequently asked if the budget included items of expenditure which were given as gifts, particularly in the case of clothing, footwear and leisure goods for children.

The group also noted that no information had been sought on the costs of children's birthday parties. In working through a budget, a figure of \$100 minimum for the cost of a child's birthday was the respondents' agreed estimate.

Housing

Most participants thought the area they lived in was expensive, arguing that rents and mortgage repayments would on average be double those presented to the group from the BSU budgets.

Participants were divided on the issue of the number of bedrooms necessary for families with a large number of children. Some argued that the bedrooms in their particular houses were quite small and that it would be impossible to accommodate two children's furniture and possessions if they had to share bedrooms.

Some participants tried to have a bedroom for each child by converting living space into extra bedrooms. It was generally agreed that after puberty, each child needs their own room. Some open space in children's bedrooms was also important because the back yards of most houses in this particular location were too small for children's play areas.

Overall, parents reported that their housing costs were around three times the BSU housing budgets. The respondents commented that inner city areas have held their values despite the recession and they are, on the whole, quite expensive. Housing costs in outer Melbourne, they noted, are more reasonable.

The respondents were living in a high risk area and all had household contents insurance. The group was undecided about whether people on a low cost budget should have to go without contents insurance. Shopping around for insurance was necessary to get the best deal and prices for the group ranged from \$420 to \$1,000 for combined contents and house insurance.

There was a good deal of variation in the amount paid for council rates, with costs ranging from \$600 to \$1,200 a year. The cost of water rates also varied considerably, from \$160 to \$550 a year.

Repairs and maintenance costs were high for this group due to the older ages of the houses. Amounts of \$500 to \$1,000 were suggested for annual maintenance and to cover the costs of repairs such as painting and replacing roof tiles.

Energy

The group thought the estimates for energy were too low. They suggested electricity costs of around \$800 a year and gas at around \$600 a year as more appropriate for families of their size. The group agreed that larger families spend more on lighting but not necessarily on heating.

Food

The BSU budget estimates for fruit and vegetables seemed about right for the group. The meat costs varied for some members due to vegetarian preference but also different methods of buying allowed savings to be made. One participant bought meat (no bones) in bulk, on an irregular basis, paying for large orders by instalments.

Some respondents spent double or more on meat than the budget estimates, noting that children get fed up with stews, curries and spaghetti bolognese served up on a regular basis. Another mother kept costs down by cooking large amounts of food and freezing one half for another occasion; she also used extra vegetables to make the dish go further. For 'other' groceries estimates the group thought the costs were reasonable.

Most of the focus of discussion was about how frequently you need to shop for groceries - this varied from once a week to once a month. The group agreed there are economies of scale in buying in bulk for larger families and they said that they buy in bulk where possible.

All but one respondent thought that alcohol costs were much higher than the BSU estimates and the estimates for take-away food were also not realistic.

One mother (with boys aged 17 and 15 and a younger girl) gave the following account of her take-away costs—\$7 a day (\$35 per week) for her husband's lunch, \$30 for one take-away meal for the family; the children get a lunch order once a week which costs \$4 each—a total of \$77 per week.

Another mother said her family could not afford any take-away meals and another woman only has a take-away every fortnight because it is so expensive—\$20 for a family-sized pizza. In general, the group tried to keep the consumption of take-away food down, on the grounds of cost and unsuitability.

Clothing and Footwear

The respondents in this budget area focused on the costs of children's clothing and footwear. The group agreed that quite young children (aged under six) are expensive to clothe because of wear and tear, compounded by rapid body growth. At both standards, the group thought the estimates for shoes and joggers were under-budgeted and agreed that only quality brands were worth buying.

Due to teenage boys' excessive wear and tear on clothes and their rapid growth, the limited wardrobe provided for the teenage (14-year-old) boy in the BSU budgets was acceptable to the group, although they believed that two pair of joggers per year for teenage boys is fairly normal.

Household Goods and Services

The group focused on several items in this budget that were important to them. There was general agreement that it is quite usual for teenage boys to have king-size single beds. For adults, most agreed that two pairs of sheets per bed was adequate on an on-going basis.

There was general agreement that it was best to buy good quality products in this area as they last longer. Electric blankets were not popular with the group, with most appearing to favour hot water bottles and the barley seed pillows which can be heated in the microwave and are quite safe, even for children to use at night.

Health

This was a difficult budget for the group to comment on. Some had spent up to \$2,000 per teenage child on orthodontists, noting that most teenagers used orthodontic treatment at some time with the cost for such care being very high. The group felt that orthodontic work was not done for cosmetic reasons but because it was necessary. Most agreed that everyone should have a regular dental check-up once a year.

There was a degree of variation in non-prescription costs among group members. Some parents have minimalist requirements, while others said they spent far more in this area than the budgets allowed, especially on first aid items such as dettol, cotton balls and band aids.

Mothers, especially those with teenage daughters, noted the high cost of pads and tampons. Even the cost of the 'No Frills' brand resulted in great expense in this area. Women felt these costs were not adequately reflected in the budget standard estimates.

Working through the breakdown of the budget costs, many respondents thought the allocated number of visits to the doctor were excessive for adults. They commented that men do not go to the doctor at all and women rarely do. One woman noted that: 'You have to be dying, before you, as a mother, go to the doctor'. Some respondents thought younger children went slightly more often to the doctor than older children. Not many in the group ever use specialists.

Transport

There was considerable variation in the group in relation to transport costs. Bicycles, as a form of transport were popular with some families. For others, children's activities (dancing, sport, etc.) led to much higher mileage: one participant suggested an \$80 a week fuel bill. These families usually owned larger, less fuel efficient cars necessary to transport large numbers of children (their own and others).

Because of large family size, most mothers delivered their children to and from school, which they claimed was not only more efficient but cheaper than public transport: it was not just an isolated trip for one individual. Some children using public transport needed two trams to get to and from school and parents found this not only expensive but time consuming as well.

On reflection, the group agreed that budget estimates for car maintenance and repair were appropriate and the estimates for taxi travel appeared reasonable. There was general agreement that taxi travel is not popular with large families: however, savings can be made when transporting four or five older children (from different families) to and from leisure activities.

Leisure

The one father in the group had a yearly pass for football which cost him \$70 a season. He noted that a single ticket for one game is about \$12.50 and for a family (two adults and three children) it costs around \$60 to attend a football game.

Several women calculated that \$40 a week for two adults and two children seems an appropriate amount for all to participate in a regular sporting activity; others thought around \$30 was closer to what was appropriate. Mothers found uniforms and equipment for older children's sports quite costly with cricket gear, bike helmets and joggers being mentioned.

The women noted the high cost of taking children to the movies. For two children's tickets, two containers of popcorn and two cokes the cost was \$17. On the whole, they thought that four visits a year to the movies was realistic for their children. Two women mentioned hiring videos for the family as a cheaper form of entertainment.

Holidays away from home were thought to be more expensive than those estimated in the budget. One week away for accommodation alone for a large family was \$700 and another woman mentioned that she recently spent \$1,600 on a week's family holiday. One woman noted that while camping was a less expensive holiday, it had cost her family \$250 in petrol alone to get there and back and all food, ice etc. had to be purchased locally which was expensive.

The total costs for the BSU leisure budget were thought to be fairly realistic for some, although one mother mentioned that a great deal of leisure goods are bought to be given at birthday and Christmas times for family members and therefore in her estimation the budget costs may be too low.

A number of other respondents thought the leisure budget was much too low - particularly for those families with teenage children.

Personal Care

Hairdressing costs varied enormously within the group, with some regularly attending for cuts, streaks, etc. and their children also having regular (every four weeks) cuts as well. Some families used home barber equipment, while others had lower costs than the budget estimates. The estimated budget costs for make-up seemed reasonable.

Contraception was discussed by the group and there was a general feeling that for protection and contraception women and older girls should have a supply of condoms.

The jewellery/watch costs seemed reasonable to the group. Women noted that they do not spend any money on jewellery for themselves, but occasionally buy earrings for their daughters as gifts. They thought the items included in this budget component were fine and the other costs for soaps, etc. also seemed reasonable.

Other Costs

Education costs were thought to be an issue of high cost for this group, a number of whom had their children at private schools. An annual figure of \$3,000 for three children at secondary school was mentioned.

Overall Budgets

In concluding the discussion, the group thought that, adding together all the modest but adequate component budgets, the total amount was a possible figure for larger families, although their own higher housing costs made the final figures for them unreasonable.

The group agreed, however, that if families lived further out (in the outer suburbs of Melbourne) the low cost budget calculations were more feasible as housing and child care costs are lower.

Non-Custodial Parents (Who Exercise Regular Access)

Another of the special focus groups in the second wave conducted in Melbourne was a group of non-custodial parents with shared access. As mentioned earlier, the Victorian focus groups were chosen to explore how appropriate the budget standards were to circumstances of special groups, to suggest areas for attention and to provide a preliminary guide to what needs to be considered when customising basic standards for specific groups.

Of all the 'special need' focus groups the BSU experienced greatest difficulty in recruiting participants in the non-resident fathers group, and it was only through personal contact by a staff member of the Brotherhood of St. Laurence with one such parent that a snowball sample of non-resident fathers was eventually organised.

While every effort was made to ensure that these men met the required criteria, it proved impossible within the timeframe to find enough non-resident fathers who only exercised 'typical access'. When the group was eventually assembled, it transpired that four of the fathers turned out to have 'shared custody' of their children (shared custody implies a 40 per cent to 60 per cent sharing of children by both parents), while four others exercised access on a regular basis, though one of these four commented after the group began that it was 'a while' since he had seen his children.

Unfortunately, the difficulties involved in recruiting membership of this focus group adversely affected its usefulness.⁷ Despite this, the group discussion revealed a good deal of valuable and insightful information. However, in light of its final composition, a more accurate description of the group would be as comprising eight separated fathers who have shared custody of their children or who exercise regular access to them. The abbreviated term 'separated fathers' will be used henceforth to refer to members of the group.

The eight separated fathers were presented with a summary of the draft BSU budgets most appropriate to their particular circumstances, that is, whether they lived in couple relationships (but exercised regular access to children) or lived alone and predominantly regarded themselves as single (but still exercised regular access to their children).⁸

It is important to point out that there was no requirement on the part of the participants to reveal any of their personal details such as their current living arrangements and who, whether it be another adult and/or children, shared their household on a regular or irregular basis. Nor were participants required to explain their access arrangements in relation to children from a previous relationship.

Some details of their personal life, did, however emerge during the course of the focus group discussion, pointing to a number of areas that might require consideration when considering the costs of non-custodial care exercised on a regular and substantial basis. Other information

⁷ One can only speculate about the reasons for these difficulties. They may in part reflect the group's low reliance on income support and other public programs that can help to identify these people, combined with the relative lack of previous research in the area. This is not to deny the high profile and active political campaigns run by some non-custodial fathers. However, the BSU was keen to avoid involving any of these particular fathers in the study because it was felt their opinions and attitudes might be influenced by their views on current child support policies.

⁸ The draft summary budgets used in the stimulus package for this group were the budgets for a single female aged 35 and a couple family with a girl aged six and a boy aged 14 years. In the clothing and footwear budget, the costs for a 40-year-old male were substituted for a 35-year-old woman's costs.

was obtained from the Household Expenses Form the participants were asked to complete prior to the focus group discussion (see Appendix 13.B).

Seven of the eight fathers handed in their completed forms during the meeting. However, while the details of expenditure provided by this group is interesting and informative, its usefulness is restricted by the fact that it is often not possible to tell how many people (adults and/or children) these costs pertain to.

The only question on family formation they were asked to complete referred to the number of dependent children in the household. Unfortunately, it is not clear whether these 'dependent' children are from a current or a previous relationship, or a combination of both, or whether they are natural or stepchildren.⁹

Housing

Most fathers in the group said that the BSU budget for housing would not cover their costs. There was a mixture of renters and those purchasing their own house among these fathers. Their current accommodation appeared to be linked to their changed circumstances and was in some cases of a different (lower) standard than their previous accommodation.

A key housing issue for the group was whether extra bedrooms (and consequently higher mortgage/rental costs) were required for access visits by their children. One father reported that his young children shared a bedroom with him on visits, as he could not afford a larger place. Some fathers were of the opinion that sharing of bedrooms was OK for access visits, especially when the children were younger. However, it was also of importance that they lived 'a short drive away' from their children. The majority of fathers lived in this kind of proximity to their children.

As in the case of information obtained from the other BSU focus groups, the costs of insurance premiums, maintenance and repairs were much higher for those owning or purchasing than for those in rental accommodation. In relation to access visits, there did not appear to be any significant impact on these costs due to the presence of children, though one father noted that he had replaced carpets in the house with polished floor boards due to his children's asthma condition.

Energy

Some participants, especially those with teenage or older children, reported higher costs as a result of access visits of children. These children were seen as heavy energy users, particularly of hot water when showering. 'They are inclined to empty out the tank' was the typical response of one father.

Children, these fathers believed, generally used more electricity. One participant commented that 'children don't turn the lights out' and another that 'they leave things (like the television) going'.

⁹

Of the seven participants who provided information on the number of 'dependent' children, two reported there were none, two reported two children, two indicated there were three children and one reported five children.

Food

According to participants in the group, the amount allowed for food in the budgets for single and couple households were too low to meet their needs. This was due in part to the lifestyle and the gender of the respondents and in part to access visits from children. It appears that the younger the children the higher the costs for food (especially take-away).

Fathers who were not living with a new partner reported higher food costs for themselves. While some of the fathers appeared to cook for their children on access visits, others took them out or bought take-away.

As was the case for many other focus group participants, the costs allocated in the budget for alcohol were perceived as low.

Clothing and Footwear

There was general agreement among the participants that clothing and footwear costs for children was an expense shared between families. Shared expenses occurred particularly with younger children, where having 'spare' or extra items solved the problem of things forgotten or left behind after visits. Older children's needs in this area did not appear to be of the same concern, only the odd item (e.g. runners) needed to be bought for use during access visits.

Household Goods and Services

Several participants noted that it was necessary for most of the non-custodial parents to purchase extra items of furniture (beds, wardrobes, bookcases and linen) for when their children came on access visits. These costs were seen as quite substantial.

Health

The dental costs for (older) children were significant for some of the fathers, but otherwise medical costs were fairly minimal. Fathers who had asthmatic children appeared to incur extra costs buying Pharmaceuticals (e.g. Ventolin), renting or purchasing humidifiers and nebulisers from time-to-time.

Transport

Access visits in themselves did not seem to be the cause of extra transport costs, either in relation to the use of private cars, public transport or use of taxis. These minimal extra costs may be due to fathers living in close proximity to their children's custodial parent's home.

Two of the fathers mentioned that meeting the costs of their (older) children's public transport tickets was a big expense. However, it was not clear whether the children were school or university students, or were employed. The cost of \$36 a week for public transport given by one father seems unlikely to be the costs incurred for one child on a return trip per day to the local school.

Leisure

The leisure and recreation expenses that separated fathers (who exercise regular access), claimed, are similar to the expenses of parents in 'intact' families because they placed great emphasis on providing for their children's sporting activities, holidays and other entertainment. The group agreed that this was a significant expense.

Personal Care

One father with older girls (four girls aged between 15 and 22) and a new partner noted that extra expenditure on make-up (\$700 for the last 12 months) and jewellery (\$500 spent in the last two years) were significant items in his budget.

Summary

Overall, the group found one of the principal assumptions of the BSU budget standards methodology—'gifts in equals gifts out'—problematic. The non-custodial fathers felt that Christmas, birthday parties and gifts in general for their children were reasons for higher costs than might be expected in other families. Many participants commented that, for people like themselves, spending on their children was a way to compensate for the loss of family status and to assuage their own feelings of guilt.

Although the group discussion produced many insights into the specific needs of separated fathers, it would not be sensible to attempt to quantify the likely costs incurred on an on-going basis by separated parents in relation to the costs of access visits of their children using the material collected in a single focus group. There are a number of reasons for this.

A single focus group composed of a small number of (non-randomly selected) participants cannot be treated as a representative sample in any statistical sense. A further complication is that separated fathers (who exercise regular access) live in a diverse range of household circumstances.

While a variety of these circumstances were represented in the focus group, this was achieved at the cost of having a smaller number participants in any single situation, thus adding to the diversity of what was already a relatively non-homogenous group. Added to these problems were the difficulties involved in recruiting membership of this group referred to earlier.

Taken together, these factors provide powerful reasons why one cannot generalise from such a small group to the larger population of separated or non-custodial parents. The best use to which the material collected in this focus group can be put is to provide insight into what might be required in the design of a more comprehensive study of this category of people.

Despite all this, the discussions with this group raised many areas of unanticipated expense that would require further detailed investigation in any thorough study of the costs of being a separated or non-custodial parent with regular access. This preliminary study indicates that the costs of housing, take-away food, clothing, energy, health, leisure, and furniture may all be different from those of other household types. Moreover, there is significant evidence to show there is wide variations in costs, even within the group itself.

A further complication is raised by the work of Funder (1992), who found that in relation to access visits, there may be some discrepancies between what the non-custodial parent and the custodial parent each claim in relation to expenditure on, or support for, children. However, it should also be noted that even within 'intact' families mothers and fathers do not always share the same views about how finances are distributed within the households (Bradshaw and Stimson, 1997).¹⁰

¹⁰

It would clearly be valuable to devise a method for resolving these discrepancies.

Given the limitations of a single focus group, further research would be a pre-requisite in any attempt to 'customise' any of the budgets of other household types to represent the typical expenses incurred by parents in this category. Any such design would need to carefully consider, not only the marital circumstances of the non-custodial parent, their new housing situation, the ages of the children concerned, but also key assumptions about the division of care between the former partners.

Examples of some of the issues in relation to access about which assumptions would be required are: What is the frequency of access? What happens during school holidays? What are the arrangements for picking up and dropping off children at the beginning and end of access visits? When children of divorce or separation have chronic conditions, such as asthma, who pays for the extra health costs?

Moreover, it should also be noted that the budget standards study suggests that there are considerable economies that arise from joint consumption (see Chapter 14). While in some respects, two families share the costs of children, it should not be forgotten that two households must be maintained at all times independent of the time children spend in them.

Thus:

'The major cause of additional expense in shared custody (or extensive access) is the need to duplicate housing (largest cost) and related costs, such as utilities, household furnishings, play and study space, toys and equipment...These costs are not reduced for the primary parent when the child spends considerable time with the other parent.' (Melli and Brown, 1994, pp. 554-55)

Although non-custodial parents appear to incur significant costs in caring for their children on access visits, the savings achieved for the custodial parent when the children are away from the house is in no way comparable to these costs (Melli and Brown, 1994).

It follows that in relation to the costs of non-custodial parents who exercise regular access, it is unlikely that these can be estimated by simply subtracting the budget standard of one household type from that of another. The important issues raised by the non-custodial parents' focus group requires a substantial project in their own right.

People with Disabilities

The third of the 'special need' focus groups conducted in Melbourne was with a group of people with disabilities. A small group of five people with physical disabilities were presented with a summary of budget costs appropriate to their particular household circumstances and asked to comment on their appropriateness. Three of the participants were single and two were in couples; none had dependent children living with them.

Not surprisingly, the issues that affected this group of people in relation to their living standards and costs were very specific to their particular disability. However, there were some common areas of concern expressed by this group.

Housing

For those who rented or were purchasing, access to the unit or house was important and this aspect limited the choices available within their price range. For those in wheelchairs,

restrictions are faced on what you could do with a rented place to make it more adaptable in relation to the daily tasks of cooking, bathing, toileting and general cleaning.

For two respondents (both in wheelchairs) home care and attendant care were required to maintain them in their households. Home maintenance and repairs, including basic lawn mowing and gardening, were mostly beyond the capacity of the owners or purchasers in the group and were considered costly items as these services had to be purchased.

Energy

A number of the group were in receipt of some type of allowance or pension and noted that concessions were available to help with paying utility bills, such as council and water rates and telephone and energy bills. Of all the utilities, the one where the highest costs were faced was energy. Three in the group were of the opinion that people with disabilities have higher energy costs.

Extra heating to assist with pain management and for general warmth was required for certain disabilities and one woman, living alone and wheelchair bound, left her lights on for security reasons. For those who need to use wheelchairs, it is not unusual for them to have their chair battery on charge when it is not in use.

Food

The BSU food budgets were within the realms of the group's spending patterns, though their costs for take-away food were a good deal higher. As in other focus group discussions, alcohol costs in the budgets for the male respondents were seen as especially below what they usually spent. For one male respondent, alcohol was used for the treatment of pain as an alternative to medication and cost in the vicinity of \$25 per week.

Clothing and Footwear

Costs for clothing and footwear were quite modest for this group, primarily due to income constraints, their specific disability and their lifestyle. Their main concerns were that they incurred higher dry cleaning costs than the budgets allowed, due in part to their medical conditions, but also because of wear and tear from needed equipment like wheelchairs.

Household Goods and Services

Special furniture (beds and bedding) and specific fittings (grab rails and other modifications) were additional costs to these people's household goods and services budgets.

Health

In the health area, costs for medical, dental, pharmaceutical and other treatments were much higher for this group than those allowed for in the BSU health budget. Private health insurance was seen as highly desirable, even though several participants could not afford it, and the loss of free dental services was a concern as well.

Transport

Transport was perceived as an area of great concern and high expense. For those who drove, special modifications had to be made to cars and vans, both for driving and to accommodate

wheelchairs. Parking in the city was often a problem and fines were incurred due to a lack of suitable parking in close proximity to where these people had to go.

The group was highly critical of the 'pay and display' method of parking. It was regarded as not at all suitable for people in wheelchairs due to the need to return to the car, unlock it and place the ticket on the dashboard.

Taxi travel was seen as not a desirable mode of transport due to negativity on the part of taxi drivers towards people with a disability who sometimes need assistance. The group also noted that there is a lack of concessions to assist with taxi costs. Public transport was used only by those able-bodied enough to access it.

Leisure

Leisure and recreation were not discussed due to the early conclusion of the meeting: this situation arose because respondents had to remove their cars from a special parking area before it closed!

Personal Care

Personal care costs were also quite modest and fitted within the budget allocations.

Special Needs for Aids and Equipment

The BSU budgets make no allowance for people's needs for special aids or equipment. Accessories such as wheelchairs, the replacement of tyres and batteries for chairs, walking sticks and rubber tips for walking sticks were a significant cost for this group.

Based on the results of this small focus group of people with physical disabilities, little can be said about the nature and level of costs faced by people with a disability in relation to determining budget standards for this category of people. One reason for this is that there is an enormous range of types, numbers and levels of impairment or medical conditions that could affect the pattern and scale of costs of household budgets.

The variety of these conditions, plus the fact that the effects of many other conditions were not represented in the focus group, makes generalising from these findings fraught with difficulty. Thought needs to be given to the design of a larger scale study designed to capture the special expenses incurred by the wide variety of people with different kinds of disability.

Most of the members of the group appeared to have some labour market activity but also received several different forms of either monetary (e.g. pensions, allowances and concessions) or community support (e.g. home care or personal attendant care) which then made it difficult to tease out what their actual costs of living were and what standard of living they were closest to—low cost or modest but adequate.

Health, housing, energy, transport and, to a lesser degree, household goods and services were budget areas where there appeared to be significant extra costs incurred, depending on the level of impairment. The purchase, maintenance and repair of special equipment and aids, including specially-modified cars which are items not considered by the budget standards project, were also of great importance in assisting these people to outwardly achieve a standard of living comparable to other people.

All of these findings are useful in sensitising researchers to the issues that would need to be considered in developing a budget standard for people with disabilities. It would undoubtedly take a more extensive study to determine the appropriateness of the current budget standards methodology for people with disability and to develop a plausible method for customising a budget standard to represent the costs of living for specific sub-groups within the disability population.

Regional City Focus Group

Eight adults from a large regional city located about 100 kilometres from Melbourne participated in the group. The participants, all parents with varying numbers of dependent children ranging from young babies to adolescents, came from households with at least one partner in paid work.

Housing Costs

Nearly all participants were purchasing their homes, with most paying mortgage costs higher than that estimated by the BSU for purchasers in Hurstville. In relation to rents, all agreed that the rent for a three bedroom (weatherboard) house in their area was around \$160 a week.

The group agreed that housing was cheaper in their city than in Melbourne and that they had taken advantage of this to acquire a higher standard of housing than could be achieved by living in Melbourne.

Housing and contents insurance costs were estimated to be around \$700 for the area (with discounting given for those taking security measures and installing smoke detectors). Most felt they would not go without contents insurance because it would be risking the accumulated assets of a lifetime.

The cost of council rates were lower than the preliminary BSU estimates for larger families living in Hurstville (\$699 a year). A number of participants estimated their council rates at between \$450 and \$500 a year. Water charges were considerably lower than the BSU estimates (\$1,210 a year), with one woman (who used tank water only) having no water charges. She noted, however, that a large tank cost about \$5,000 to purchase but lasted for 20 to 25 years.

It was difficult for participants to estimate a separate housing repairs and maintenance cost, as a number reported that they were renovating while others had postponed expenditure in this area. Maintenance that was typically postponed included replacing the carpet, the kitchen fixtures and painting.

One male participant commented that one of the advantages of living in a smaller city was that building supplies were cheaper and prices were very competitive. It was easy to take advantage of lower prices since little extra travel was involved in comparative shopping.

Energy

Many of the group members had large families (three or more dependent children) and spending on energy raised a lively discussion about the variation in energy costs and why this was so.

Three women thought that around \$650 a year was about right, but one remembered an additional cost of \$400 for wood fuel each year. One couple thought their family spent about

\$1,000 a year on energy. Energy bills were higher than the BSU estimates for another male, though he recovered some of his costs in a 'write-off' against the small business that he operated from home.

Two other participants thought their energy bills were about double the BSU estimates. Many thought their high energy bills came about because kids are profligate consumers—leaving lights on all over the house. Only two participants, one a female full-time worker with a husband with a disability, felt that a clothes dryer was essential.

Food

Prices for fresh fruit and vegetables were, according to all participants, cheaper than in Melbourne. Good, local market gardens and the ease of comparative pricing contributed to this situation. Most participants grew some vegetables themselves, although one male calculated that it was in fact cheaper to buy them and had given up growing his own.

One woman in a family of six spent around \$50 a week on meat for six out of the seven days. Another woman thought it cost her around \$30 a week to feed her six children meat on three days of the week. Two other respondents estimated their family meat bill at about \$45 a week and another thought his meat expenditure was higher than the BSU allowance.

The BSU estimate for alcohol was thought to be a bit low for this group. Participants thought it was important to take alcohol when invited out as BYO was the norm for visiting friends for a meal. For most, however, alcohol was a low priority and food came first. The weekly costs for alcohol varied from \$12 to \$50.

Take-away food was an item that most respondents with children sought to avoid. A number of parents used take-away meals to give themselves a break from household chores, with some spending about \$20 a week on a 'pizza deal'. Only one father took his family out to a restaurant once a week, costing between \$50 and \$60 a visit. Most took a cut lunch to work, though two participants said they spent small amounts on occasional take-away food.

In general, grocery costs were less than, or the same as, the BSU low cost budget standard estimates. Participants usually bought most snacks and treats for children when shopping at the supermarket. It was agreed that one of the costs of women's paid employment was extra expenditure on food to save (the women's) food preparation time.

Clothing and Footwear

Those who worked full-time thought that work clothes accounted for 95 per cent of their clothing and footwear budget and that they only needed a minimal wardrobe for their leisure activities. Two women noted that they generally bought 'classical styles' so as to protect against shifts in fashion.

Two men thought they spent around \$600 a year on clothing. One male thought the allowance for shoes was too modest, suggesting that four pairs were necessary for work and recreation. Another participant mentioned hiking boots for her activity as a Scout leader. One woman also raised the issue of bras which in her case needed fitting (which cannot be done at Target) and had a lifetime of about a year, leading to a cost of \$50 a year.

For a 14-year-old boy, it was suggested that it cost \$1,000 a year for school uniforms and because of biological growth, shoes often lasted only six months. All mothers took steps to

reduce clothing costs, some sewed and used hand-me-downs (but not for underwear and shoes) and three shopped at opportunity shops.

One couple reported that their son had income from a paper run and bought (after careful deliberation) clothes he really desired out of his earnings.

Household Goods and Services

Expenditure estimates for the group were varied and ranged from less than the BSU estimates to double it. Most participants made use of second-hand goods, garage sales and auctions to help keep costs down.

Health

Most participants felt they had healthy families except for one woman, whose husband suffered a serious disability. Most General Practitioners in the area bulk-billed, but it was necessary to travel to Melbourne to visit specialists.

Ambulance insurance was also a necessary cost (\$35 annually) because of the distance to the closest major public hospital. Orthodontic costs for teenage children were raised as an issue (as happened with parents in other focus groups with large families) and this item was estimated to cost around \$4,000 over three years. Some said they avoided these costs if the treatment was only for cosmetic purposes.

Spectacle costs were another important item mentioned by some (estimated to cost around \$470 a year). The majority of participants were in private health insurance funds, but some planned to move to no cover or self insurance.

Transport

Transport was a considerable cost of living in a regional city. Some respondents commuted to work in Melbourne. Most families ran two cars (both generally older than 10 years) mainly because of a poor public transport system within the area.

Children were more likely to use bicycles than the school bus for the journey to school. Cars were used extensively to chauffeur children around, with one mother noting that, on one day of a weekend, she had spent eight hours delivering and collecting her children from sporting events in the outlying areas.

Most thought they spent more than the BSU estimate on tyres and repairs, with one woman spending more than \$2,500 on repairs the previous year. Registration fees were cheaper than BSU estimates because the cost of third party insurance in the area was cheaper than in a capital city.

Most participants avoided using taxis, though one woman estimated about \$15 a month on taxi fares, with others agreeing that this was a reasonable estimate.

Leisure

Most adults did not spend on active exercise for themselves, though one paid \$6 a week for a gym membership. Most thought about \$10 a week on the children's sporting activities was about right. Their area had a high level of sports participation, although if competition involved travel to Melbourne this curtailed activities for children.

Due to poor cinema facilities in the area, expenses for movies were lower than in Melbourne, with all tickets costing \$9 regardless of age. Most parents thought they spent more on video rental than cinema attendance.

The group agreed that about a two week holiday away from home each year for a family at the modest but adequate was the norm — but they were not in favour of holidays for those living at the low cost standard. Most families used caravans or took camping holidays. Establishing a stock of camping equipment or purchasing a caravan could cost thousands of dollars. Although the on-going costs then were low, they could not be ignored.

Most thought the BSU estimate for the cost of holidays was ludicrously low. Extra food expenditure was part of any holiday (otherwise it was not a holiday for the cook) and it also demarcated the time as a special treat for children. However, respondents noted that 'special treats' added up to considerable expense.

Personal Care

Most participants felt that they spent below the budget standard average on personal care products. Although participants noted that hairdresser costs in their city were cheaper than in Melbourne, parents with larger families often cut their own children's hair. For two women, their higher-than-average hairdresser/make-up costs were necessary because of their occupations. One male commented he spent around \$1,000 a year on perfume for gifts.

Neglected Issues

In estimating a budget standard relevant to their circumstances, participants in the group thought that consideration needed to be given to the issues listed below (estimated amounts in brackets).

- Voluntary superannuation or savings plans (\$ 105 to \$ 120 a fortnight)
- Term life insurance (\$400 a year)
- Costs of pets: vets' fees (\$700 to \$1,000 a year)
- Kennel costs for holidays (\$7 to \$9 a day)
- Credit card charges
- Loan interest
- Landscaping (\$400 fixed sum)

Finally, all participants noted that they used pocket money as an inducement to get children to participate in household chores. Amounts ranged from \$3.50 to \$12 a week.

Rural Location Focus Group

This group consisted of six adults who lived in the vicinity of a small rural town mid-way between two larger regional cities in Victoria. The population of the town was 845 (in 1996). The respondents all had dependent children, numbering from two to six, in the family.

Housing

As rural people, most were purchasing properties or lived on farms. One male, who worked as the farm manager lived in a house on his father's farm. As a business, the farm claimed 100 per cent of the interest on the housing mortgage as a tax deduction. The reported costs of mortgage repayments for the respondents varied from \$425 to \$750 a month.

There was an abundant supply of houses for rent in the locality and everyone agreed that a good three-bedroom house could be rented for about \$130 a week and a 'respectable farmhouse' for around \$80 a week. The only renter in the group reported paying \$100 a week in rent.

Most participants paid housing and contents insurance premiums of around \$380 a year. The group explained that premiums were cheaper than in the city because of the lower market value of properties and the smaller risk of theft.

The group agreed that their housing repairs and maintenance costs were higher than for those living in cities because of call out fees charged by tradesman from the nearest larger towns. Most local tradesman worked for \$30 an hour. Building materials and supplies were not available at discount rates, but as there was no rural transport surcharge on these goods the group felt that most items could be bought for modest but adequate prices.

A few in the group had repairs and maintenance costs in the past year; one had his house painted at a cost of around \$2,600, while another spent \$700 on a new window, new door and a carport. Repairs to a water pump cost another \$60.

Council rates were estimated to be under \$300 a year with the average around \$250. Some respondents were connected to piped water supplies and had water rates ranging from \$60 to \$240 a quarter.

Other respondents found it difficult to distinguish domestic water use from farm use, with some obtaining their water supply from creeks or tanks. Those without piped water reported spending \$28 on a permit for a standpipe and \$100 to buy supplementary water for their tank.

Energy

Most of the households represented in this focus group consumed electricity only or a combination of electricity, LPG and wood for meeting their energy needs. All said that heating accounted for more than half of the annual energy bill. All households, except one (all electric) used wood fuel stoves for heating.

Most said that they spent between \$400 and \$600 a year buying firewood for heating. Families attempted to minimise heating costs by making extensive use of electric blankets and hot water bottles, especially for children. Four households used bottled gas (LPG tanks) and an expenditure of \$145 a year on LPG was considered 'typical'. All except one respondent had electric water heaters.

As would be expected from the above, reported total energy expenditure was well in excess of the BSU standard, based as it is on a more temperate coastal urban location. A family of six estimated a yearly expenditure of \$1,100 to \$1,200 on energy needs. When wood for heating is added, these amounts increased by an extra \$400 to \$600 a year. Wood fuel therefore has a powerful impact on total energy costs in these inland rural localities, since it accounts for such a high proportion of the total energy bill.

For some in rural areas, however, energy costs are offset by the ability of some farmers to claim a high proportion of energy expenditure for tax purposes as costs incurred in producing an income from the farm. One respondent reported no energy expenditure because it was provided as part of the manager's quarters his household occupied and in any case, the farm 'wrote-off' 75 per cent of energy expenses.

Food

Although rural residents sometimes grew some vegetables and fruit for their own consumption, most said their food came from shopping at a nearby town. A number of respondents found growing for their own consumption was an 'uneconomic' activity. There was general agreement that spending in this area was about half the BSU allowance, with most estimating their fruit and vegetable bill at around \$20 a week.

Most respondents thought that the BSU estimates for weekly expenditure on meat was 'about right', with some respondents slaughtering and eating their own stock. Respondents noted that the local butcher sold meat at cheaper prices than butchers in larger town or cities. Reported weekly expenditure on meat ranged from \$15 to \$40.

Only three respondents, drank alcohol on a regular basis, reporting weekly expenditure of \$8, \$20 and \$25. Take-away food was not important for most in the group. For lunch, both school children and men in non-farm occupations ate sandwiches made from home. Women prepared their own lunches at home or at work.

In comparison to the urban focus groups, these features led to significantly reduced reported expenditure on take-away food and meals out, which ranged from zero to \$30 a week, the typical value being \$10 a week or less.

Some respondents reported weekly expenditures on groceries that were remarkably low, ranging from \$40 to \$150 a week, with the median at around \$110. Even the highest of these figures was well below the preliminary budgetary allowance calculated by the BSU (around \$200 a week for low cost and \$240 for modest but adequate). When questioned further about how they managed to keep their expenditures so low, respondents mentioned buying staples (rice, flour and sugar) in bulk and seeking out only generic brands of groceries.

On the evidence of this focus group, the costs of food in rural areas are not as high as elsewhere. This is chiefly because distance and the lack of local amenities encourage lower expenditure on take-away and meals out, alcohol and meat. These same factors encourage the bulk purchase of non-perishable foods. Most of the group felt that they fell at or below the low cost standard.

Clothing and Footwear

In this rural location, the emphasis was on practical rather than fashionable clothes for everyday wear. Good quality gum boots were an essential item in a rural area, with most family members owning gum boots. They were estimated to cost about \$25 but lasted a number of years.

Two women in the group sewed their clothes for their families, most bought second-hand clothes from opportunity shops, and all made extensive use of hand-me-downs. The group agreed that anyone in the community whose children outgrew clothes passed these clothes on to other local families with children of an appropriate age. However, teenagers were exempted from this system because of their age and their own perceived need for brand name clothes—especially jeans.

Most adults claimed very low expenditures on their own clothes. Most men owned one 'weddings and funerals' suit and one thought he spent about \$50 a year on clothes. One female respondent had bought an outfit for a job interview but said this had only cost her \$15.

As a consequence of rural practices and the prevailing culture in the area, expenditure on clothing and footwear reported by this group was well below the preliminary BSU estimates for families of their size. The median clothing and footwear expenditure in the group was \$1,360, less than half the BSU estimates for large families (\$3,000 and \$3,500 a year for the low cost and modest but adequate standards, respectively).

Household Goods and Services

As with clothing, there was a heavy reliance on hand-me-down furniture for children. One respondent reported a significant expenditure (\$700) on curtains in the last year, while another had bought an overlocker to assist in making clothes for her family.

There was also a useful discussion of the lifetimes of items in this budget, with one father noting that the boisterous behaviour of his young children tended to reduce the lifetimes of children's bedroom and living room furniture. One respondent thought that a fridge would only last around seven years and she expected to replace her overlocker in about 12 years. Another in the group had replaced many electrical appliances in the last year, since they were mostly wedding gifts from 12 years ago.¹¹

A notable item of expenditure was school fees, with families with school age children reporting an expenditure ranging from \$460 to \$2,500 a year, with a median value of \$1,400. Presumably, the upper range of this expenditures was necessitated by the lack of educational choices in the local area.

One solution to this problem of rural isolation and limited choice is to enrol children in private schools that provide places on the basis of fees. One advantage of living in a small rural area, noted respondents, is that parents in the community are willing to assist with before-and-after school care.

Health

There were few health services available in the area, with a GP from the nearest town visiting once a week. Beyond that, meeting health care needs meant travel. Most focus group participants had used the full range of medical, dental, pharmaceutical and para-medical services in the last 12 months.

Reported expenditure on the GPs ranged from zero (all visits bulk-billed) to \$500 a year, though it was not clear whether some of this amount was recovered through Medicare. Two participants had some private health insurance cover and a high proportion visited 'alternative' medical practitioners.

Overall, the amounts spent on health services by respondents correspond roughly to the BSU estimates for the modest but adequate standard for households of the appropriate type.

Transport

Transport issues and costs for this group were unusual because of their rural location. Most households ran two cars (except for one which owned one car and a motorbike) with one car generally a family sized, six-cylinder or a four-wheel drive vehicle. The other car, usually used by women in the household, was a much older (all over 15 years) car.

¹¹

The lifetimes of many electrical goods in the household goods and services budget for larger families was in fact set at around 11 years (see Chapter 7).

Owning two cars doubled the registration and insurance costs for these families. The total of registration and insurance costs, however, was below that estimated by the BSU for Hurstville, reflecting the cheaper cost of registering vehicles in Victoria.

All households reported mileage of 40,000-50,000 kilometres per year leading to higher average fuel costs and rapid wear of vehicles. The greatest part of their travel requirements was connected with work and the need for children to maintain social contact (through sporting competitions, visiting friends and family, and so on).

Estimates of weekly fuel costs varied from \$40 to \$80, with \$60 as the median level of expenditure. These amounts are more than double those estimated by the BSU for households living in a city location.

The reported costs of servicing and repairing vehicles were also much higher than those estimated by the BSU. Extra costs were incurred for new tyres (travel is on predominantly gravel roads) with many respondents claiming that they replaced a set of tyres twice a year. A set of tyres for a four-wheel drive vehicle at around \$500 was a significant expense.

Road surfaces in rural areas also led to high windscreen repair or replacement costs and collisions with kangaroos and stock were not uncommon. Among this group the annual cost of repairs ranged from \$75 to \$1,530 with a median cost of over \$1,000.

The town is on a regular bus route connecting one larger regional city to another. According to the respondents in the group, children also made use of school buses for the journey to and from school. High school students travelled to the nearest regional city by bus and a bus allowance was available from the Victorian government. There was a taxi service, based in a nearby town, but respondents made little use of it.

Leisure

Television and VCRs were a popular form of entertainment for these rural families. Four households had one television set, one had two sets and two others owned three sets each, with one of these households subscribing to satellite TV (at a cost of \$40 a month). The hiring of videos was common in the group and most families purchased either newspaper, magazines, books or recorded music on a fairly regular basis.

Spending on sporting activities for most families was reasonably modest with only two households spending \$28 and \$38 a week on sporting activities. The children in one household participated in Boy Scout and Cubs activities and their sporting expenses were about half the modest but adequate BSU estimates.

Given their distance from capital cities, it is not surprising that regular leisure outings (to theme parks, zoo, etc.) were not a feature for most families. Only one father (the farm manager), who could only arrange short holidays away from the farm as extra labour is required to replace him, took his family on regular outings three or four times a year. Each outing cost around \$56 for entrance fees and \$30 for travel and extra food for the whole family.

Regular holidays were more common for four other households in the group, with only one household rarely going away on holidays and having family outings only 'now and again'.

Personal Care

A peculiarity associated with living in a rural area emerged, with one respondent reporting heavy expenditure on disposal nappies because the scarcity of water made washing cloth nappies near impossible.

Women in the group reported low expenditure on make-up and cosmetics, ranging from zero to \$20 in the last year. A mobile hairdresser came through the town at regular intervals (charging \$25 per cut) but many respondents said that they often cut their own children's hair. Most participants thought that the BSD allowance for soaps and shampoos was too high.

Apart from one respondent who had spent \$2,000 buying gifts of jewellery in the last two years, the norm in the group was low expenditure on jewellery, either spending nothing at all or less than \$50 a year. These practices are consistent with the lower expectations about fashionable appearance already noted in relation to clothing.

Total Expenditure

Two respondents rated their overall expenditure as consistent with the BSU estimates for the modest but adequate standard. The remainder thought that the BSU estimate of the low cost standard was a better description of their standard of living.

One father thought it cost about \$3,000 a year more to live in a capital city and everyone in the group agreed that its was significantly cheaper to live in a rural location.

13.6 Overall Summary

There can be little doubt that the focus group discussions reported in this chapter contributed significantly to the development of the BSU budget standards research. There were two main areas where focus group input was particularly valuable.

The first of these (mainly arising out of the Wave One group discussions) was to identify aspects of the preliminary budget standards that required further consideration. In most cases, the revised budget standards reported in Chapters 3 to 12 have reflected this advice, except in a few cases where other considerations resulted in a different final judgement being made.

The second area where the focus group input has been valuable has been in the insights provided into how the budget standards relate to the actual lives of Australian households in the late 1990s. The most important of these are contained in the material in this chapter: material which gives life to the standards by putting some 'practical and pragmatic flesh' on the 'statistical bones' contained in earlier chapters.

Finally, there is a third area where the contributions of the 'special needs' focus groups have been valuable. What emerges from these discussions is a vivid picture of the diversity of the special needs of those in particular circumstances. They provide a useful basis for considering how the budget standards methodology might be extended to cover such cases, although whether or not it will ever be possible to represent a highly diverse set of needs in a single representative budget standard is somewhat problematic.

However, it is important to note that neither the 'special need' focus groups nor the other groups saw the estimated budget standards as being totally outside of their own experience. All participants saw the BSU budget standards as a useful basis from which to consider their own specific circumstances and costs.

To this extent, the focus group input served to reinforce the validity of the budget standards, at least to the extent possible from a process such of that described here.

APPENDIX 13.A: Sample of Issues Presented for Discussion to the Wave One Focus Groups

1. Tell me some of the items you and your family would or could go without if your weekly income was reduced permanently, between \$50 to \$100 a week?
2. What do you think are the differences in living standards between households on low cost and modest but adequate budgets?
3. What do you think are the household bills or costs that present the most difficulty in paying? What do you do, to save money on electricity or gas bills?
4. Here is a list of Canadian housing standards. Do you think these are the basis for a minimum standard for housing in Australia, including households on low incomes?

*there should be no more than two persons per bedroom
 children under five years of different sexes may share a bedroom
 children five years or older of opposite sex should not share a bedroom
 children under 18 years old of the same sex may share a bedroom
 household members 18 years or older should have a separate room
 parents and couples should have a separate bedroom*

5. Now I would like to talk about some household and individual goods often found in Australian households. Some items are seen as necessary for all individuals or families regardless of their economic circumstances. Are these items necessary for you? What about people on low cost budgets?
 - A telephone?
 - Best outfit for special occasion?
 - More than one pair of shoes for each member of the household?
 - New and not second-hand clothes?
 - Household insurance?
 - Private health insurance?
 - What do you think are adequate levels of heating for living areas?
 - A TV?
 - A car? PROBE: How old?
 - A washing machine?
 - A refrigerator?

PROBE: For above items (TV to refrigerator) for people on lower standards of living—some people say less expensive second-hand purchases of these items as against buying them new is a way of owning these goods—what do you think? Many people rent or hire these items—is this an appropriate/acceptable method of acquiring these goods?

6. It is said that people on a 'low cost budget' have to travel further to shop at cheaper or less expensive stores—what do you think about this issue?
7. What about branded items? People say households on a low cost budget have to buy the largest available package and the 'No Frills' brand? How do people feel about this?

8. What forms of transport do you use in the following circumstances:
- regular (grocery, fruit and veggies) shopping;
 - taking kids to and from school;
 - taking kids to and from activities, such as sport, music or craft classes? PROBE: Private car/public transport, other. How would this differ for those on low cost budgets?
8. Holidays away from home are a very popular leisure past-time. How often do you have a holiday away from home? What about households on low cost budgets? FOLLOW-UP? Perhaps families on low cost budgets could have one holiday away every two years? PROBE: Frequency and length of holiday.
9. You often hear that families that do have a holiday away spend on extras such as food, drinks, meals out and tours? How much money do you usually set aside for these extras?
10. Parents of small children like to be able to have a night out without their children? Do you agree with this statement? PROBE: What are the costs you incur for these nights out? What are the differences for the two standard of living. How much do you spend on baby-sitting? How often is 'a night out' seen as reasonable for those on low cost budgets?
11. Going away overnight on a short trip is another popular leisure past time for individuals and families. How many short trips do you take in one year? PROBE: Where and how much? Same for both living standards?
12. From time-to-time families and individuals like to go out—for example, to the beach, the movies, theatre, or the zoo? How much money do you allow for these outings? PROBE: Differences for different economic circumstances. What kinds of outings and how frequently?
13. Most children celebrate their birthday with a party of some description. How much do you think it is reasonable to spend on these parties. What are the differences for people on different income levels?
14. Going to other kid's birthday parties usually means taking a small gift. For the families on a 'low cost budget', how much money could be set aside, for gifts/presents not just for other kid's birthdays but also, for example, for presents that grandparents give to their grandchildren.
15. Pocket money for kids is talked about by many parents. Are the amounts of pocket money that kids get different for households on different living standards? If so, how much do you think is reasonable? How does this vary with age? How old are kids when they first start getting pocket money?
16. You often hear that some kids miss out on leisure activities and toys (like playing organised sports or having bicycles or skateboards) because of parent's low income. What do you think about this?

17. Make-up and skin care products are items used by many households. What types of make-up and skin care products do you consider essential? What amounts of money do you spend on these items? Where do you buy these products? (Chemists, supermarkets, department stores?) Are there differences in amounts spent by people on low incomes? How important is the 'brand' when purchasing these items?
18. What personal jewellery such as wrist watches, neck chains, or rings do you think individuals should have? Are there differences in quality or quantity for people on low cost budgets? PROBE: Variations by age and sex, women/men—teenage boys?
19. Should households on a 'low cost budget' be able to afford to have friends or family home for a meal (or snack) at regular intervals? PROBE: How often?
20. Reading magazine and newspapers are enjoyed by people of all ages. Do you think there are any differences in the purchase of these items by households on the different income levels. PROBE: Newspapers on a daily basis? How many magazines a week?
21. Some say that alcohol in moderate amounts is beneficial, others say it is a luxury. What do you think? PROBE: How much money do you set aside on a weekly basis for alcohol? Should it vary by different living standards?
22. Some people say having a hair cut is important for personal appearances. Do you think there are any differences in how often (and how much is spent by) members of households, at different income levels, have their hair cut? Are there any age and sex differences?
23. What about the kids in these households. Should they be able to have a friend in to play and eat a snack on a regular basis?
24. Do you think gardening is a leisure activity or a chore (like housework)? PROBE: Does age come into this?

APPENDIX 13.B: Example of BSU Focus Group Expenditure Diary

Household Expenses Form		
HOUSING COSTS	<i>Instructions and Examples Only</i>	Your household costs - (\$)
*** Enter your family costs but if single fill in your costs only ***		
(a) weekly household rent—if sharing rent costs record only your contribution to the cost	(fill in either a, b, or c) (a)	(Weekly)
(b) monthly mortgage cost	(b)	(Monthly)
(c) Own home fully—tick the box—✓	(c) ✓	
Record an estimate and details of your maintenance and/or repair costs for home\unit\flat for the last 12 months	e.g. all rooms painted, some roof tiles replaced dead tree cut down new screen doors, etc	(Last 12 months)
House (building only) insurance costs for last 12 months	insurance premium	(Last 12 months)
Home contents insurance for last 12 months	insurance premium	(Last 12 months)
OR Combined house/contents insurance for last 12 months	insurance premium	(Last 12 months)
FOOD COSTS		
Supermarket and other food stores— weekly cost (a) groceries (b) meat (c) fruit and vegetables	You will be asked for other costs (e.g. soaps, toothpastes, cleaning products) bought at the supermarket further on in the form	(Weekly cost) (a) groceries (b) meat (c) fruit and vegetables
Take-away—(fast food, pizza, KFC, etc)— weekly cost	If a family, don't forget this includes everyone in your household	(Weekly cost)
Eating out—(restaurants) only— weekly costs	e.g. 2 adults—dinner with wine. If BYO, include costs of beer/wine	(Weekly cost)
Snacks and treats—(eating out, lunches, school canteen)— weekly costs	If a family, don't forget this includes everyone in your household	(Weekly cost)
Wine and beer— weekly costs	If a family, don't forget this includes all adults in your household	(Weekly cost)

COST OF UTILITIES	<i>Instructions and Examples Only</i>	Your Household Costs (\$)
Electricity—last quarterly account	<i>If utility bills are not paid quarterly write down the time period the account covers and the amount.</i>	(Quarterly account)
Gas—last quarterly account		(Quarterly account)
Water — last quarterly account		(Quarterly account)
Telephone — last quarterly account		(Quarterly account)
Council rates—Yearly amount (if applicable)		(Last 12 months)
Clothing and Footwear Costs (please estimate)		
Self—last 12 months		(Last 12 months)
Partner — last 12 months		(Last 12 months)
Children—last 12 months	<i>include costs for school and everyday clothes.</i>	(Last 12 months)
Regular dry cleaning, laundry, ironing service costs—last fortnight		(Last fortnight)
TRANSPORT COSTS		
Motor vehicle—weekly petrol	<i>If two cars family note separate amounts for all motor vehicle questions</i>	(Weekly cost)
Motorvehicle—maintenance costs—latest service	<i>oil change/service costs</i>	(Latest service)
Motorvehicle—repairs, replacement—last 12 months	<i>e.g. new clutch, replacement tyres/retreads, kid's booster or car seats, seat covers, etc</i>	(Last 12 months)
Car insurance — last 12 months	<i>comprehensive, third party, green slip, etc</i>	(Last 12 months)
Registration — last 12 months		(Last 12 months)
Licences — last 12 months	<i>for how many adults?</i>	(Last 12 months)
Bus costs—weekly	<i>all family members—work school and leisure</i>	(Weekly cost)
Train costs—weekly	<i>all family members—work school and leisure</i>	(Weekly cost)
Tram costs—weekly (Melbourne people only)	<i>all family members—work school and leisure</i>	(Weekly cost)
Taxis costs—last month		(Last month)

HEALTH	<i>Examples and Instructions</i>	Your Household Costs (\$)
G.P. visits—last 12 months	<i>Note gap fee per visit OR Bulk-Billing arrangement—include costs for all family members</i>	(Last 12 months)
Dentist—last 12 months	<i>include all family members</i>	(Last 12 months)
Medical specialists—last 12 months	<i>Note gap fee per visit OR Bulk-Billing arrangement—include costs for all family members</i>	(Last 12 months)
Physiotherapist—(or any other therapist, e.g. podiatrist) last 12 months	<i>note cost per visit</i>	(Last 12 months)
Other alternative health care—last 12 months	<i>e.g. chiropractor, naturopath, acupuncture—note type and cost</i>	(Last 12 months)
Private Health Fund—fortnightly, monthly, or annual costs	<i>note cost and type of cover</i>	(Fortnightly, monthly, or annual)
Pharmaceutical—prescriptions and non-prescriptions monthly	<i>e.g. Doctor's prescriptions, other medicines, tablets, creams, lotions, inhalations, hire of equipment, e.g. nebulisers, etc.</i>	(Monthly costs)
Contraception costs—monthly	<i>e.g. contraceptive pill or condoms</i>	(Monthly costs)
COST OF PERSONAL CARE PRODUCTS		
Soaps, toothpastes, shampoo, conditioner, moisturiser, hair products, aftershave, razors, etc—monthly costs	<i>If bought at supermarket with other items such as food, etc, please estimate the cost</i>	(Monthly costs)
Make-up—last 12 months	<i>lipstick, foundation, eyeliner, eye shadow, blusher, etc</i>	(Last 12 months)
Hairdresser—last 2 months	<i>Remember everyone in your family for cuts, sets, perms, streaks, etc</i>	(Last 2 months)
Jewellery, watches—last two years	<i>e.g. watches, rings, earrings, chains, bracelets, bangles, brooches, etc</i>	(Last 2 years)
Bags of any description—last 2 years	<i>e.g. school backpacks, wallets, suitcases, briefcases, purses, etc</i>	(Last 2 years)

HOUSEHOLD GOODS AND SERVICES	Examples and Instructions	Your Household Costs (\$)
Major Electrical or Gas Appliances—either purchase, rental costs or repairs for the last 12 months	e.g. Fridge, stove, microwave, air conditioner, healer, TV, video, radio-cassette player, CD player, tape recorder, computer, printer, hot water tank, etc	(Last 12 months)
Minor Electrical Appliances—either purchase or repairs for the last 12 months	e.g. Iron, toaster, electric jug, blender, mixer, juicer, razor, hair dryer, etc	(Last 12 months)
Large Furniture Items—last 12 months	e.g. Bed, mattress, desk, table, chairs, sofas, lounge suite, sofa bed, bookcase, storage module, coffee table, etc	(Last 12 months)
Small Furniture Items—last 12 months	e.g. Lamps, mats of any description, baskets of any descriptions, tidy bin, small pot plants, etc	(Last 12 months)
Household linen—last 12 months	e.g. sheets, towels, pillowcases, blankets, doonas, doona covers, bedspread, tablecloths, tea towels, etc	(Last 12 months)
Crockery or cutlery—last 12 months	e.g. cutlery, coffee mugs, chopping board, glasses, kitchen utensils, etc	(Last 12 months)
Household cleaning agents—costs last month	e.g. detergent, soap, soap powder or liquid, bleach, scouring pads, powders and liquid cleaning agents, polish, wettex, chux, broom, mop, bucket, etc <i>If bought at supermarket with other items such as food, etc, please estimate the cost.</i>	(Last month)

LEISURE AND RECREATION COSTS	Examples and Instructions	Your Household Costs (\$)
Sport's costs—weekly participation costs or joining fee for the season (for all family members)	<i>e.g. tennis, squash, golf, netball, football, soccer, baseball, aerobics, exercise class, swimming centre, gym, gymnastics, little athletics, etc</i>	(Weekly costs)
Family (or single/group) outing — most recent costs (include food and transport)	<i>e.g. Zoo, movies, concerts, Wonderland, etc</i>	(Most recent costs)
Postage—monthly costs	<i>e.g. stamps, parcels, postal orders, etc</i>	(Monthly costs)
Newspapers, magazines and comics—weekly costs	<i>If a family, don't forget this includes everyone in your household</i>	(Weekly costs)
Books, videos, CDs and tapes—adults and children—monthly costs	<i>paperbacks, hard backs, rented and bought videos, music tapes, CDs, electronic games, etc</i>	(Monthly costs)
Childcare costs—weekly	<i>hours and cost for any pre-school child</i>	(Weekly costs)
School or university costs—last 12 months	<i>e.g. for all school children—excursions, books, general fee, elective subjects, music lessons, camps, sports, etc</i>	(Last 12 months)
Any other major household costs in last 12 months	<i>e.g. new/second-hand car curtains floor coverings renovations lawn mower tools pest service mobile phone holiday away from home, etc</i>	(Details of costs)
Number of dependent (aged 0 to 15) children in household	<i>sex and age, e.g. boy aged 3 and girl aged 14</i>	(Children - age and sex)

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CHAPTER 14: USING BUDGET STANDARDS TO ESTIMATE THE COSTS OF ADULTS AND CHILDREN*

14.1 Introduction

A key goal of budget standards research is to produce budgets that describe comparable living standards for people in different household types. By comparing the budgets of households of different composition but similar living standards, it is possible to address questions such as the impact of household size on costs, the costs of adults and children, the costs of sole parenthood, the cost of employment or job search and the impact of age and gender on household costs.

As noted in Chapter 2, the budget standards project has been designed so as to allow the budget standards to be used as the basis for estimating these costs. In particular, the selection of household types and the characteristics assigned to households (household size and housing tenure) and individuals (age, gender and labour force status) have been selected with this aim in mind.

This chapter discusses the alternative methods that have been proposed for estimating the various components of household costs from a set of derived (albeit indicative) budget standards. Each method approaches the issue somewhat differently, although they all share a common feature, which is that the cost estimates are incremental, in the sense that they are derived as the difference between two (sometimes more) separate budget standards.

This feature of each of the methods depends crucially upon the budget standards for different households being comparable, in the sense that they relate to the same standard of living. However, as noted on several occasions already, ensuring that the standard of living is constant across different commodities and different households presents a formidable challenge to the budget standards methodology.

In the light of this, a good deal of caution must be attached to the cost estimates presented in this chapter. Attention is drawn to those estimates that are particularly problematic given how they have been derived. In general, the cost estimates illustrate both the strengths and weaknesses of budget standards: their strength lies in the ability to disaggregate total costs into their components; their weakness lies in the uncertainty surrounding what is being 'held constant' when one budget is subtracted from another. Both features lie at the heart of the entire budget standards approach.

14.2 Conceptual Issues

Understanding how income requirements vary with household composition is by no means an easy task and is an area where there is much continuing research. Household needs can be affected by factors such as:

- the different needs of different types of people (e.g. infants need less food than adults);

* This chapter was prepared by Bruce Bradbury and Peter Saunders with assistance provided by the compilers of each component budget.

- the potential for joint consumption of shared goods such as housing and consumer durables;
- the potential for economies of scale when households purchase large quantities of goods (e.g. unit prices may be lower for large packets);¹ and
- the impact of household production patterns on consumption. For example, time spent preparing foods may be more productive in larger households, and so they may tend to eat at home more frequently, and at less cost.

There are several ways in which the information collected by budget standards can be used to describe changes in costs as household composition varies. The most straightforward method, and the one used in this chapter, is to directly compare the budgets for different household types.

Under this method, the additional costs associated with having a child present in the household can be determined by comparing the budget standard for a household including one child to the budget for an otherwise comparable household with no child. Following Oldfield (1992), this method is referred to as the *deductive approach*, since it is derived by deducting the determined budget standard of one household from that of another household, the difference being attributed to the different characteristics of the two households.

However, a fundamental difficulty that all research examining this issue faces is how to define *need*. More specifically, when comparing the consumption of people in two different household types, how can one know when both have the same standard of living?

The goal of the BSU project has been to develop budgets for households at two separately specified standards of living, modest but adequate and low cost. This is a difficult enough exercise for one household type, but it is even more difficult to be sure that the budget standards imply the same (or even approximately the same) standard of living in two different households. Furthermore, when the *differences* between household budgets are considered, any errors are magnified.²

It is difficult to derive strictly comparable budgets for different households for two kinds of reasons. First, it is not always easy to understand the economic phenomena listed in the dot points above and it is even harder to derive quantitative estimates of them. Secondly, and most fundamentally, notions of need are socially determined and thus subject to debate any reasonable disagreement.

The result, as observed earlier in the Report, is that it becomes difficult to be sure that the standard of living—modest but adequate or low cost—remains fixed as household composition changes. From this, it follows that there will always be a degree of uncertainty surrounding whether the derived budget standard difference is measuring the cost differential involved in achieving the *same* standard of living, or the cost differential associated with different households attaining *different* standards of living.

¹ The term 'economies of scale' is sometimes also used to describe the impact of joint consumption on total household costs.

² Consider two household budgets of \$500 and \$400, each of which has a margin of error of (say) plus or minus 10 per cent. The difference between the two budgets could then in principle lie anywhere between \$10 (= \$450 - \$440) and \$190 (= \$550 - \$360).

These problems become most acute when comparing families which have quite different lifestyles and different social and personal expectations, particularly when the budget standards depend in part (as the BSU standards do) on behavioural data which inevitably reflect those differences.

One case where this is particularly important is the comparison between a single female and female sole parent households. From one perspective, the difference in costs between these two females constitutes a measure of the cost of children for sole parents. But the women in the two households have quite different lifestyles, and more importantly, there are quite different social norms in the styles of living appropriate to their families.

Furthermore, the BSU budgets for the single female and for sole parent households reflect these different norms and patterns of behaviour. For these reasons, we do not feel fully confident that the estimates of the costs of sole parenthood described later in this chapter are as valid (or accurate) as some of the other cost estimates—a point which will be expanded on later.

One example of the difficulty of interpretation arises when considering social participation. To a certain extent, social participation for single women is more often undertaken outside of the home, whilst that for the sole parent is predominantly inside. This difference partly reflects the different norms that attach to single females as compared to female sole parents, and partly the different configuration of constraints (resources *and* time) confronting the two. Trying to unravel these two effects is, however, a difficult if not impossible task.

The practical consequence of these differences is that the budget standards of sole parent households include lower entertainment costs, and these produce a relatively low estimate of the cost for a woman to have a child. From one perspective, this may be seen as appropriate, since it conforms to prevailing social (and behavioural) norms, although from another perspective it does not provide the two households with the same living standard, since the mother has had to reduce her 'consumption' of entertainment.

Another similar example concerns the patterns of holiday activity allocated to single adults and larger families. The BSU focus group research summarised in Chapter 13 revealed the centrality of holidays and travel in the lives of all households, including single females. Holidays, participants argued, were an opportunity to meet people and to be pampered.

As a result, the single female at the modest but adequate standard has been allocated a holiday at a seaside resort hotel in Port Stephens (see Chapter 10). This provides the opportunity to meet other people within the resort's facilities. The families with children, on the other hand, are assumed to rent self-catering holiday accommodation in Forster on the NSW central coast.

Whilst the holiday packages chosen reflect the typical packages that the different household types actually do purchase, it might be argued that it is *financial constraint* that actually determines what is typical. If this is so, and the constraints act differentially on different households, there can again be no assurance that the standard of living is being held constant across different households.

An alternative approach to comparing budgets that attempts to avoid this constraint issue is to examine each commodity separately so as to determine the relative amounts required (compared to some reference household) by different households in order for them to be able to achieve the same consumption value (or standard of living). This method attempts to ensure

equal effective consumption of each commodity and, again following Oldfield (1992) can be referred to as the *itemised approach* to determining incremental household costs.

In the case of the holiday example, there are two ways to implement the itemised approach method within the budget standards framework. The first is to take the holiday consumption of the single person as reference and calculate how much it would cost for a larger family to have exactly the same hotel holiday at Port Stephens.

This cost would then be included in the larger household's budget standard and this revised budget compared with that of the smaller household. The second approach is the reverse of this, where the larger household's budget standard is taken as reference, and a calculation is made of how much it would cost a single person to rent similar holiday accommodation, in this case in Forster.³

Whilst the example of holidays might suggest that the relative costs of larger families will be underestimated by the deductive method (compared to the itemised method), this may not be the case for all commodities. The housing budget, in particular, is influenced by the kinds of dwelling that are commonly used by different households. Thus, both aged single people and aged couples are assumed to have the same housing, even though this means that the single aged person has more personal space (or a lower level of utilisation or occupancy).

Similarly, the use of normative standards for housing size means that housing costs do not always go up when there are additional children, even though having two children sharing a room is likely to lead to some reduction in housing quality and hence in the standard of living of the household.

The key advantage of the itemised method is that the concept of well-being (or standard of living) that is being held constant across households is (reasonably) clear. The cost differentials and relative costs obtained from this method show how much income is required for one household type to be able to have the same effective consumption of purchased goods and services as another.

However, there are many practical difficulties in the implementation of the method. When the two household types have very different consumption patterns, it is not clear which of them should be used as reference. This is further compounded when comparisons are required between many different household types, and where consumption patterns vary because of different patterns of home production and individual need.

The deductive method, on the other hand, reflects a (possibly uneasy) compromise between the goal of representing community norms and the goal that every budget standard should reflect the same concept of living standard, such as modest but adequate or low cost. If, for example, modest but adequate is taken to represent some level of effective consumption of goods and services, then these two goals are contradictory, since the community norms of consumption are partly a result of the income constraints that prevent some households from spending more than others (although these constraints are by no means the only determinants of the prevailing norms).

³ A closely related method has been applied by Bradbury (1996) to investigate cost differentials for single and two adult households. In this case, the relative costs are derived as specified in the text, but they are weighted using the actual expenditure levels of either the smaller or larger household (rather than the cost levels specified in the two budget standards). In some circumstances, the expenditure weights of two household types can be used as upper and lower bounds for the true relative costs, which would take account of the consumption substitution patterns of households.

Nonetheless, it may be the case that it *is* desirable to internalise consumption norms in this fashion. To continue the earlier holiday example, it is probably the case that the household receives as much (or more) satisfaction from its self-catered holiday in Forster than the single person does from their more expensive holiday package at a resort on Port Stephens.

This is partly because the self-catered beach holiday is seen by families with children as the sort of holiday they expect, because they compare their living standard with the living standard of other families with children. They thus in effect internalise some of the financial constraint associated with having children.⁴

To the extent to which the normative budget standards reflect these norms of behaviour, then they also may reflect financial constraints. Whilst the comparisons presented in this chapter might thus be criticised for doing this, this can also be seen as a strength, because the budget standards reflect those consumption patterns that the community has accepted and (implicitly) endorsed as norms.

Limitations of the Deductive Method

Aside from the criticisms of the deductive method discussed above, application of the method to estimate the costs of individual household members gives rise to several further problems in practice. These arise mainly because of the existence of goods and service which are jointly consumed by all members of the household.

They can best be illustrated with the help of a simplified example. Consider two households, a couple without children and a couple with one child, and let C_{20} and C_{21} be the estimated budget standard for each. The deductive method described above would take the difference between these two standards, i.e. $C^{21} - C^{20}$ as an estimate of the cost of the child.

However, assume for simplicity that there are only two cost components, a television set (T) which is jointly shared among all household members, and food (F) which is consumed individually by each member of the household. It then follows that household costs can be broken down as follows: $C_{20} = T_2 + F_1 + F_2$ and $C_{21} = T_3 + F_1 + F_2 + F_3$.⁵ From this it follows that the difference, equal to the cost of the child (C_c) becomes equal to: $C_c = C_{21} - C_{20} = T_3 - T_2 + F_3$. In other words, the cost of the child is equal to the cost of feeding him or her plus any additional 'television costs' associated with, and attributed to, the presence of the child.

There are no problems with estimating the food costs of the child, because the household food budget is derived from the food budgets of each individual household member (see Chapter 5). However, in general both households need only a single television set, whose viewing services are shared.⁶ From this it follows that $T_3 = T_2$ and thus that the cost of the child is simply equal to the increment in food costs (F_3).

However, the TV costs are spread across three people in the second household, but only across two people in the first household. This observation has lead Oldfield (1992; 1997) to

⁴ Home production effects might also be important in this context. For example, if the mother accepts her social role as 'homemaker' and provides home production services for the rest of the household, the direct expenditure requirements of the larger household will be relatively low.

⁵ Note that the cost of the TV set would, in practice be amortised over an assumed lifetime.

⁶ In other words, the television set is a 'pure public good' within the household. (The argument abstracts from the different viewing preferences of adults and children which may, in practice, lead to the purchase of a second TV set).

suggest that this can be allowed for by expressing TV costs on a per capita basis and including the child's portion of the cost as part of the cost of the child. In the earlier example, this would imply that the cost of the child is equal to the cost of the food budget of the child *plus* one third of the cost of the television services, i.e. $C_c = F_3 + T_3/3$.

Oldfield (1997, p. 42) refers to this method of estimating the cost of items that are consumed jointly within the household as the *per capita method*. She also suggests two alternatives. The first, the *differential calculation* applies the method separately to each item in the budget standard and then sums the differences to obtain an estimate of the overall incremental cost. This differs from the per capita method in that it only applies to those items where total household costs actually do change (unlike the TV set in the above example). It thus excludes the bulk of the fixed or shared household costs from the estimate of the cost of the child.

The final method suggested by Oldfield is the *normative approach*, under which a separate judgement is made regarding the proportion of the cost of each item that enters into the budget standard of the household that is attributable to the child.⁷ It is the most detailed and flexible approach, in that it allows, for example, a relatively high proportion of the costs of household furniture, internal decorating and fuel costs to be allocated to the child, but a much lower proportion of the cost of newspapers, microwave ovens and household contents insurance. Against this, the method has the disadvantage that it is very time-consuming to conduct and rests on an extremely large number of subjective (or normative) decisions.

The deductive method adopted in the remainder of this chapter is simpler than all of the three more sophisticated approaches canvassed by Oldfield, in that costs are derived as the difference between the aggregate household budget standards presented and described in Chapter 12. These cost estimates are then disaggregated into the nine main budget standard component areas in order to identify the main areas that are contributing to the incremental cost estimates, although no attempt is made to attribute a specific proportion of the costs of each item to each member of the household.

Time Constraints

Whilst the above discussion has referred to the impact that income (or resource) constraints might have on determining the norms used to set the budgets, similar issues can arise with time constraints. This is particularly relevant to the leisure budgets, where data on time use patterns have been used as the basis for estimating the amount of leisure expenditure for different households (Chapter 10).

This has interesting implications for the relative cost estimates between household types. One example arises in the sole parent budgets considered in Section 14.5. Time use data indicate that sole parents have less leisure time than comparable parents in married couples. Does this mean that they therefore need to spend less on leisure?

In the calculations of the costs of sole parenthood presented below, this has been assumed to be the case, but again one might argue that the cost (or budget standard) estimates should not include the impact of these types of constraints.⁸ This issue is explored in more detail at the end of Section 14.5.

⁷ This method is equivalent to the itemised method referred to earlier.

⁸ One might go even further and argue that in order to reach the same living standard as couples, sole parents need higher incomes to compensate them for the indirect costs associated with their loss of leisure time. However, the following estimates are confined to directly incurred expenditures only.

Home Production

Another time-related issue is that of home production. To what extent should a budget standard take account of the fact that in larger households one household member can produce goods (e.g. home cooking) within the home which will then be consumed by all members? In many circumstances, this home production will not lead to a reduced expenditure requirement for the larger household, but simply mean that household members have more leisure time. In this case, it can be argued (with some justification) that a budget standard should not include such 'nominal' rather than 'real' expenditures.

In other cases, however, larger households will have production advantages which do lead to 'real' reductions in expenditure. Again, this is of particularly relevance when estimating the costs of sole parenthood. There are several aspects of home production costs for sole parents which are not included in the BSU budget standards, but which arguably should be.

One is home maintenance. The BSU budget standards assume that home (and car) maintenance is purchased (see Chapters 3 and 9), although in some couple households these tasks are performed on a DIY basis by one member (usually the husband).⁹ Similarly, and possibly more importantly, many couples are able to stagger work hours and thus reduce child care costs in ways which are not available to sole parents.

For all of these reasons, we do not believe that the estimates of relative costs between different family types can be seen as in any way final. If a consideration of the cost estimates presented below serves to engender a fuller understanding of the complexity of these issues, then they will have served a useful purpose.

14.3 Cost Variations with Household Size

The most fundamental way in which the budget standards vary with household composition is that they increase with family size. These broad patterns of varying household costs are shown in Figures 14.1 and 14.2 for all of the household types for which a budget standard has been costed.

Because the budget standards vary so much with housing tenure, this factor has been distinguished in two Figures. This disaggregation by housing tenure is continued in all of the results presented in this chapter. Where possible, when comparing large and small households, this is done by assuming that both have the same housing tenure.¹⁰

The variation in the derived budget standards with housing tenure is vividly illustrated by Figures 14.1 and 14.2. They show that, at both the modest but adequate and low cost standards, for households of size one to three, the *upper bound* budget standard estimate for households containing one or two people is below the *lower bound* estimate for households containing two or three people, respectively. This suggests that housing tenure can be seen as a more important variable than the size of the household.

⁹ The point is not so much that the sole mother has 'lost her man', but rather that there are fewer adults in the household. The husband might be able to specialise in home and car maintenance precisely because there is another adult who can undertake child supervision and other domestic tasks.

¹⁰ In some cases, this is an arguable proposition, as some household types may be more likely to be living in specific housing forms. The most important difference is between work force age and retired households and in this case it is not possible to hold tenure constant. See Section 14.3.

Figure 14.1: Variations in the Modest but Adequate Budget Standards by Household Type

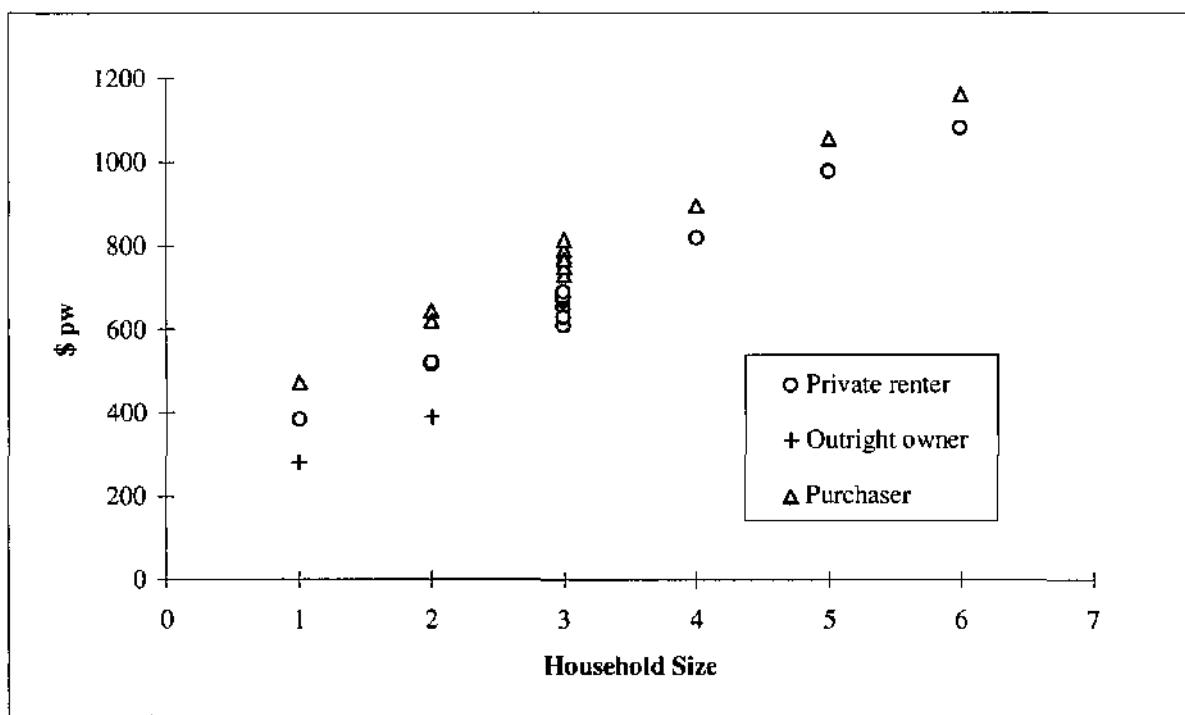
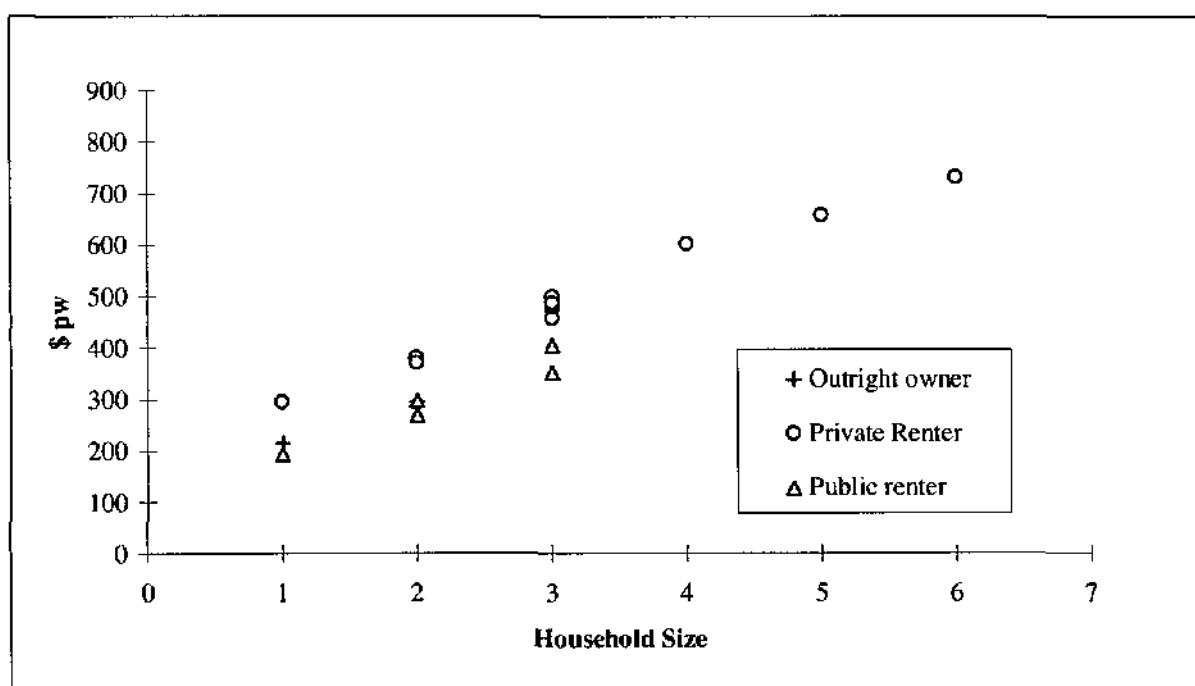


Figure 14.2: Variations in the Low Cost Budget Standards by Household Size



As might be expected, the budgets increase significantly with household size. For all tenure categories, the cost of the first person is always substantially above the cost of subsequent people (as can be seen from the fact that a line drawn through the points for each tenure type always intersects the vertical axis above zero). For larger households, the increase in cost with the number of people in the household is very close to being constant.

However, these broad patterns by themselves are not particularly informative. Budget standards have only been developed for a limited set of particular family types. For example, the three budgets for households containing five people all assume that the household comprises a couple with three children (girls aged three- and six- and a 14-year-old boy). This family type is not intended to be representative of all households with five people.

Similarly, for some household sizes a number of different family types have been costed, but again there is no claim that these are representative of all families of that size. Indeed, for some of these family types, there is considerable variation in costs among households with the same number of people. This is due to variations in household composition (e.g. couples *vis-a-vis* sole parents; children of different ages), as well as differences in housing costs across different housing tenures and cost variations with work force status.

Household costs are thus a function of many more things than just the number of people in the household. The remaining sections of this chapter therefore focus in turn on the different aspects of household cost variation.

As explained above, the results which follow in Sections 14.4. to 14.8 are based upon simple comparisons (the deductive method) of the budgets of the 46 different household types included in this study. However, there are many other household types that could be considered and many of the important questions about the relative costs of different family types cannot be directly addressed by comparisons within this set of 46 households.

Section 14.9 therefore introduces a methodology that can be used to extend the BSU results to other household types. The method involves a summarisation of the available budget standard results in terms of a linear function of key household characteristics. This function can then be estimated from the available results, and then used to calculate budgets for households other than those considered in this study—though there are important limitations on the validity (and accuracy) of these extensions, particularly when they refer to households which differ significantly from those included in the BSU study.

The approach is illustrated with an example which examines the cost of children in couple households at the low cost standard. The results are exploratory and should not be regarded as definitive. Their aim is to identify another fruitful use to which budget standards can be put, and to introduce a topic requiring further research.

14.4 Variations With the Number and Gender of Adults

This section begins with an examination of the budgets for one and two adult households. In Tables 14.1 and 14.2, the budgets of single females are compared with those of couples of the same age, labour force and housing tenure characteristics. Table 14.1 shows the budgets at the low cost standard, whilst the corresponding modest but adequate budgets are shown in Table 14.2.¹¹

¹¹ The low cost budget standard results are henceforth discussed first, because of the relevance of these findings to the levels of, and relativities between, social security payments.

Table 14.1: Low Cost Budgets for One- and Two-Adult Households

	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	PerC	Total	total Excl. Hsng
Working Age Private Tenants (Unemployed)											
Single female (\$SPG)	124	7	39	18	25	3	50	21	7	294	170
Couple (\$SPG)	124	10	86	32	31	7	53	28	12	382	257
Difference (\$SPG)	0	2	47	14	6	4	3	7	5	88	87
Ratio	1.00	1.33	2.20	1.76	1.24	2.33	1.05	1.32	1.76	1.30	1.51
Retired Owners (Not in the labour force)											
Single female (\$SPG)	46	8	37	13	37	7	38	22	6	215	169
Couple (\$SPG)	48	9	76	22	37	13	39	41	10	296	249
Difference (\$SPG)	1	1	39	9	0	6	1	19	5	81	80
Ratio	1.03	1.14	2.03	1.68	1.00	1.86	1.02	1.86	1.89	1.37	1.47
Retired Public Tenants (Not in the labour force)											
Single female (\$SPG)	39	6	37	13	24	7	38	23	6	193	154
Couple (\$SPG)	59	8	76	22	30	13	39	39	10	298	238
Difference (\$SPG)	20	2	39	9	6	6	1	17	5	105	84
Ratio	1.51	1.44	2.03	1.68	1.27	1.86	1.02	1.72	1.89	1.54	1.55

Notes: (a) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.
(b) The adjusted totals in the last column exclude housing costs.

Table 14.2: Modest but Adequate Budgets for One- and Two-Adult Households^{(a)(b)}

	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	PerC	Total	Total Excl. Hsng
Working Age Private Tenants (FT employed)											
Single female (\$pw)	140	8	51	24	30	4	76	28	22	383	243
Couple (\$pw)	140	11	112	42	37	11	85	44	32	514	324
Difference (\$pw)	0	3	61	18	7	6	10	16	10	130	131
Ratio	1.00	1.37	2.20	1.76	1.24	2.47	1.13	1.55	1.43	1.34	1.54
Working Age Purchasers (FT employed)											
Single female (\$pw)	227	8	51	24	30	4	76	28	22	472	245
Couple (\$pw)	245	12	112	42	60	11	85	44	32	643	398
Difference (\$PC)	18	3	61	18	29	6	10	16	10	171	153
Ratio	1.08	1.42	2.20	1.76	1.96	2.47	1.13	1.58	1.43	1.36	1.62
Retired Owners (Not in the labour force)											
Single female (\$SPG)	46	9	47	14	45	8	56	39	16	280	234
Couple (\$SPG)	48	10	95	25	48	16	56	64	26	388	340
Difference (\$SPG)	2	2	48	10	3	8	1	25	10	108	106
Ratio	1.03	1.19	2.02	1.72	1.06	1.88	1.01	1.65	1.59	1.38	1.45

Note: See Notes to Table 14.1.

For each household type, the single female budget standard is shown first, followed by the couple budget, and then by the difference and ratio of these two budgets. For goods that are not shared within the household (such as clothing and food) the difference represents the cost of the male, which can be compared directly with the corresponding items in the budget standard for the single female.

The most striking feature of all of the budgets is the low relative estimated costs of the second adult. For most household types, couples are estimated to need between 30 per cent and 40 per cent more than a single woman to reach the same living standard. The exception is retired public tenants, where couples need 54 per cent more to reach the low cost standard. Couple expenditures are relatively greater here because they have a higher combined income and hence a higher public housing rental.

These ratios can be compared with the equivalence scale implicit in the Australian pension system, where couples receive (together) around 67 per cent more than single adults.

The relative costs of couples compared to single females are lowest for private renters. This reflects a combination of high housing costs (compared to owners and public tenants) together with the normative assumption that single people require the same occupancy standard of housing as couples (i.e. only a single bedroom—see Chapter 3).

For purchaser couples, the BSU housing occupancy standard assumes a degree of 'under-occupancy'. This reflects behavioural patterns in the community and results from two different processes. Among younger households, it is linked to anticipation of marriage and increases in family size. Among older households, it is the result of children leaving the parental home or the death of a spouse. Again, however, it is generally assumed that the couple has the same housing as the single person.

The one exception to this is in the case of working-age purchasers at the modest but adequate standard. Here, both single adults and couples have two bedroom dwellings, but single adults are assumed to occupy a unit, whereas couples are living in a two bedroom house.

It is clear that the results in Tables 14.1 and 14.2—particularly the cost relativities—reflect the high housing costs of private renter households, which in turn reflect how the housing occupancy standards have been applied. The housing costs of private renter one- and two-adult households are the same, which depresses the relativity between the two budgets.

In the light of this, the calculations have been repeated net of housing costs. These estimates—shown in the last column of Tables 14.1 and 14.2—show that while the incremental cost of the second adult changes very little, the cost relativity increases to between 45 per cent and 62 per cent—the low cost relativities now being much closer to the DSS payment relativity of around 67 per cent.

The following discussion highlights the main factors contributing to the cost differences and relativities described above. Behavioural data on energy consumption suggests that the costs of hot water and cooking increase proportionately with the number of household members, while the costs of lighting and heating households are related to the number of bedrooms in the house. A substantial proportion of energy consumption is unrelated to either the size of the house or the number of household members.

It follows that an increase in the number of household members without altering the number of bedrooms increases energy costs only slightly. Even increases in both the number of household

members and the number of bedrooms increases the energy budget less than proportionately. In the examples in Tables 14.1 and 14.2, the number of household members increases with the addition of the male but the number of bedrooms remains constant, which explains the slight increase in energy costs.

Food, on the other hand, is modelled on the basis of the personal nutritional requirements of each individual household member. These are greater for men than for women (particularly those of working age), as can be seen by a comparison of the food budgets for the single female with the corresponding difference between the couple and the single woman.

The opposite pattern occurs in the clothing and footwear budget, where at both the low cost and modest but adequate standards it is somewhat cheaper to 'outfit' a male than a female of comparable age. Part of the cost difference can be attributed to the greater variety and range of outerwear clothing and footwear items worn by women compared to men, combined with the fact that women's underwear requirements are more extensive than men's and include such items as slips, bras and stockings. Accessories for women are also more numerous with handbags, casual bags and scarves (see Chapter 6).

Tables 14.1 and 14.2 show generally strong economies of household size in household goods and services, except in the case of home purchasers. Here, there is a significant increase in costs when comparing the single female with the couple. This is due to the differences in furnishings between the two bedroom unit inhabited by the single female and the larger two bedroom house being purchased by the couple. The couple also have a number of garden implements and garden furniture (Chapter 7).

Around half of the low cost and modest but adequate transport budgets for a working-age single female can be categorised as fixed costs associated with owning and running a car. These costs include depreciation, insurance, licences and child seats (Chapter 9). With the addition of a male to the household, there is little change to these costs.

The remainder of the transport budget is primarily variable costs associated with running the family car, mainly petrol, repairs and toll charges. Public transport is a tiny part of the transport budget for the single female household.

It is assumed that the low cost households make the minimum number of trips by car, these include shopping, visiting the Department of Social Security and CES offices, looking for work and visiting family and friends. When the male joins the household, it is assumed that the couple share most of these trips, although since it is also assumed that workers travel to work by car, the addition of the male to the household increases the travel costs associated with work.

Economies of scale in transport are as marked for retired households as they are for the low cost working-age households. This largely reflects the fact that fixed costs are a smaller proportion of total costs for the retired households because pensioners are exempt from registrations and licence fees in New South Wales.

For all households, the cost of personal care is greater for females than for males, with these differences being more pronounced at the modest but adequate level. While many household items such as toothpaste, toothbrush, soap etc. are not gender dependent, the gender differences can be attributed to the higher costs of hair cuts for women, particularly at the modest but adequate level where the adult females are given a cut and colour every six weeks.

The cost of make-up, particularly for those who are in employment, and skin care also contributes to the additional costs for females. These additional costs are moderated somewhat by the costs of razors, shaving cream and blades for the adult males, which make up a significant proportion of adult male personal care costs at both standards.

Health costs are almost equal for men and women in both the low cost and modest but adequate budgets. The 40-year-old male has been allocated spectacles, but this is determined by his age rather than his gender. Similarly, any differences in the types of non-prescription and prescription medications are based on age rather than gender.

The retired female has slightly higher health expenditure requirements than the male because (according to behavioural data reviewed in Chapter 8) she makes four specialist visits per year, whilst her male counterpart makes none. She also visits a GP more often and as a consequence has more prescriptions than the 70-year-old male.

Leisure consumption, especially participation in home-based leisure activities, provides many opportunities for joint consumption. Also, the leisure budget is the least prescriptive of any of the BSU component budgets, being heavily influenced by behavioural information, in two important ways.

First, the budget for leisure varies according to time constraints. Those not in the labour force or unemployed are among the relatively 'time wealthy', with the capacity to devote more time to leisure activities. However, leisure time-wealth does not increase all activities equally, just as time constraints on leisure do not reduce every activity by the same amount.

Some activity-specific weights have been developed to capture the effects of time constraints on particular groups of activities for each household type (according to labour force status and housing type), as explained in Chapter 10. A large increase in the time available for leisure, such as that associated with retirement and unemployment, typically results in higher levels of home-based leisure activities, which increases the quantities of relevant goods and services needed, placing upward pressure on leisure costs.

Second, having determined the amount of time devoted to various forms of leisure activity and the balance between activity groups, behavioural information is used to establish thresholds for the consumption of various goods and services.¹²

A high proportion of leisure activity takes place at home and is based on consuming the services of leisure goods such as newspapers, radios, recorded music, television and recorded video materials. The economic advantage of joint consumption of these goods explains the relatively low increase in leisure expenditure when moving from the budget of a single female to that of a couple. Couples consume marginally more, but often because males use these goods more than females.

Most of the leisure budget differences between the single person household and the couple household derive from out-of-home activities. There are no possibilities for joint consumption in paying for swimming pool entrance, so these expenses are considerably higher among

¹² For example by assembling age (and sex) specific participation rates and applying the 50/75 per cent rule, 40-year-old males (at the modest but adequate standard only) attend football matches as a spectator (because the participation rate for males of this age is above 50 per cent but below 75 per cent). Similarly, the household containing a 35-year-old woman living alone, attends popular music concerts regardless of the standard of living (because the participation rate for households of this kind is greater than 75 per cent).

couples (particularly for the aged who have more time for swimming). In addition, and as a result of the 50/75 per cent rule, the 35-year-old single female spends more on cinema tickets, attends popular music concerts and, at the modest but adequate level, visits art galleries.

These verbal explanations help to relate the cost differences shown in Tables 14.1 and 14.2 back to the component budgets described in earlier chapters and hence to the normative and behavioural assumptions on which each budget is based. They illustrate that another strength of the budget standards approach is that it not only produces estimates of the cost differences (and differentials) but also reveals *where* these differences arise and *why* they do so.

14.5 The Impact of Adult Age

How does the cost of reaching either the low cost or modest but adequate standard vary with the age of the adults in the household? Whilst the BSU budget standards do not cover all ages, it is possible to make broad comparisons of working-age and retirement-age costs using the household types included in the study.

In particular, this section compares the budgets for a single woman aged 35 with that for a single woman aged 70, as well as those for comparable working and retirement age couples without children.

Single Women

Table 14.3 compares the budgets of low cost single working-age (35) and retired (70) women. Because norms of labour force status and housing tenure vary with age, the budget standard study calculates costs for different housing tenure and labour force patterns. The low cost budget for the 35-year-old assumes she is unemployed (and thus includes job search costs), whilst the low cost budget for the retired women assumes that she is not in the labour force. In addition, the low cost budgets for working-age women are calculated for private tenants, whereas the older-age budgets are calculated for both owners and public renters.

The first panel of the Table 14.3 shows the budgets for these three family types. The second panel shows the difference between the two retirement tenures and that of the 35-year-old private renter, whilst the last panel shows the cost (or budget) ratios.

Table 14.4 presents a corresponding analysis for single women at the modest but adequate standard. In this case, the 35-year-old woman is assumed to be employed full-time. Two tenure types for the younger woman are included (private renting and purchasing) whilst the retired woman is again assumed to be an outright owner.

The most striking feature of these comparisons is the huge reduction in housing costs associated with owning your own home or being a public tenant receiving rent concession. Typically, housing costs of the older woman at both standards of living are about one-third those of comparable working-age women.

Housing costs are thus the main reason why the total budget declines significantly with age. If housing costs are excluded (as shown in the last column of both Tables) the difference in costs is much reduced, although there is still a tendency for costs to decline with age.

The main reason for this decline in non-housing costs results from the transport budget. The low cost transport budget of the working age female is 32 per cent higher than that of the retired female while the corresponding modest but adequate transport budget is 37 per cent

Table 14.3: Cost Variations with Age for Single Women at the Low Cost Standard

	Hsng	Energy	Food	Clthng	HGS	Health	Transpt	Leisure	PerC	Total	Total Excl Hsng
Expenditure(\$SPG)											
Age 35, private											
renter	124	7	39	18	25	3	50	21	7	294	170
Age 70, owner	46	8	37	13	37	7	38	22	6	215	169
Age 70, public											
renter	39	6	37	13	24	7	38	23	6	193	154
Age 70 minus Age 35 private renter (\$ SPG)											
Owner	-78	1	-2	-5	13	4	-12	1	-1	-79	-1
Public Renter	-84	-2	-2	-5	-1	4	-12	2	-1	-101	-17
Age 70/Age 35 private renter											
Owner	0.37	1.12	0.95	0.72	1.51	2.26	0.76	1.06	0.80	0.73	0.99
Public Renter	0.32	0.76	0.95	0.72	0.97	2.26	0.76	1.10	0.80	0.66	0.90

Note: (a) The 35-year-old woman is unemployed, while the 70-year-old woman is retired (i.e. not in the labour force).
(b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.4: Cost Variations with Age for Single Women at the Modest but Adequate Standard^{(a)(b)}

	Hsng	Energy	Food	Clthng	HGS	Health	Transpt	Leisure	PerC	Total	Total Excl Hsng
Expenditure(\$SPG)											
Age 35, private											
renter	140	8	51	24	30	4	76	28	22	383	243
Age 35, purchaser	227	8	51	24	30	4	76	28	22	472	244
Age 70, owner	46	9	47	14	45	8	56	39	16	280	234
Age 70 owner minus Age 35 (\$ SPG)											
Private renter	-94	1	-4	-10	15	4	-20	10	-6	-103	-9
Purchaser	-181	0	-4	-10	15	4	-20	10	-6	-191	-10
Age 70 owner/Age 35											
Private renter	0.33	1.11	0.93	0.60	1.50	1.95	0.73	1.37	0.72	0.73	0.96
Purchaser	0.20	1.06	0.93	0.60	1.48	1.95	0.73	1.37	0.72	0.59	0.96

Note: (a) The 35-year-old woman is employed full-time, while the 70-year-old is retired (i.e. not in the labour force).
(b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

higher.¹³ Whilst the women at the low cost standard own the same type of car, the retired female does not have to pay the registration fee, nor does she have to pay for her licence.

Furthermore, the working-age woman travel further each year than the retired woman. The younger low cost woman is unemployed and makes extra trips associated with looking for work, whilst the younger woman at the modest but adequate standard uses the car to travel to work. Both younger women also make a number of special trips to help elderly relatives, which are not undertaken by the retired women.

Energy costs are generally similar for the younger and older women. The retired female owner of a three-bedroom house consumes more energy than the younger female renter of a one-bedroom unit (two-bedroom unit for the modest but adequate purchaser) because it is more costly to heat the house than the unit. However, the retired female receives a pensioner concession and purchases the energy associated with heating water at a cheaper rate. The net effect is that the working-age and retired females have similar energy budgets. The retired female public renter consumes the same amount of energy as the younger female renter, but her budget is slightly lower because she receives a pensioner concession.

Both the food and clothing and footwear budgets are lower for the retired woman, at both living standards. The lower nutritional energy needs of elderly women are the main reason for their lower food expenditure, whilst clothing differences are mainly due to different labour force activities and lifestyle considerations more generally.

The younger (low cost) woman, though unemployed, is assumed to be looking for work and is job-ready with a wardrobe similar to an employed woman. In comparison to the older retired women, the younger employed (and unemployed) women have a greater selection and number of clothing and footwear items, which are also assumed to have somewhat shorter lifetimes. The older woman is assumed to wear more casual, comfortable and less stylish clothes than the younger woman. Because her 'quieter' lifestyle results in less wear and tear on her clothing and footwear and thus a need for less frequent laundering of outerwear garments there are consequently longer lifetimes for such items.

Household goods and services is one area where the older woman has higher costs (except for public renters). This is due to the higher costs of owners of houses compared to renters and purchasers of units, because owners have allocations for garden furniture, gardening tools and regular lawn mowing services—items that are not required for unit dwellers.

As might be expected, the older woman generally has around twice the health costs of the younger woman, though this difference is relatively small in dollar terms (a reflection that all individuals are assumed to be generally healthy—see Chapter 8). The 70-year-old female attends a specialist four times a year (as opposed to no visits for the 35-year-old), she wears glasses, has a full set of dentures and has a yearly vaccination—all of which add to her health budget.

She also visits a GP more often. While this of itself is not a cost in the health budget because of bulk-billing, the number of prescriptions each year is related to the number of GP visits. As a consequence, the cost of prescribed medications is greater for the older woman.

¹³ Thus, $50/38 = 1.32$ and $76/56 = 1.37$.

There are two major differences between the leisure budgets of younger and older single female households. The larger amount of leisure time available to the older woman tends to increase her leisure expenses. The older households own a house with a garden (which has associated expenses), while the younger woman living alone is purchasing or renting a home unit. At the modest but adequate level, the older women is assumed to take a holiday with full board, whilst the younger woman's holiday is less expensive.

Lifestyle has an important impact on the personal care budget, because the younger woman has a make-up and jewellery wardrobe appropriate for employed women or job seekers, as well as shorter lifetimes for many items. The older woman no longer menstruates, nor does she wear make-up other than foundation and lipstick. She does, however, need denture cleanser and the jewellery she uses is different from that of the younger woman.

Married Couples

The same comparisons to those just described can also be undertaken for couples. In this case, the younger couple contains a woman aged 35 and a man aged 40 whilst the older couple are both aged 70. Table 14.5 shows the cost variations for the couples at the low cost standard, whilst Table 14.6 shows the corresponding cost variations for couples at the modest but adequate standard.

In general the reasons for cost differences among couples of differing ages parallel the explanations for single women presented above. Housing tenure, lifestyle and price concessions are the main contributors in explaining the lower costs for older couples.

Costs associated with having pets are also important at the modest but adequate standard. These costs are included in the household goods and services budget for purchasers, where the younger couple spends over \$9 per week on costs associated with their pet dog (see Chapter 7).¹⁴

Age is a significant factor influencing health care usage, regardless of housing tenure and standard of living. Both members of the older couple wear glasses and have a full set of dentures, whilst only the 40-year-old male in the younger couple wears glasses. The older couple also have more GP visits (and therefore more prescription medications).

Despite the increased health care usage of the older couple, their health costs are moderated by the assumption that they are eligible for pensioner concessions at both budget standards. These concessions apply to prescription medications and vaccinations. The only reduction in health care usage among the elderly is for contraception.

Personal care items are more costly for the younger couple. While there is little difference between the males by age at both standards, the cost of the women changes with age (as explained earlier). The personal care budget does not differentiate between the employment status of males as it does for females, so labour force participation does not impact on the male budgets in the same way that it does for the females at retirement and non-retirement ages.

¹⁴ The allocation of pets has been based on data on pet ownership and since the older couple do not meet the 50 per cent rule, they do not have a pet.

Table 14.5: Cost Variations with Age for Couples at the Low Cost Standard^{(a)(b)}

	Hsng	Energy	Food	Clthng	KGS	Health	Transpt	Leisure	PerC	Total	Total Excl Hsng
Expenditure(\$SPG)											
Young private											
renters	124	10	86	32	31	7	53	28	12	382	258
Old owners	48	9	76	22	37	13	39	41	10	296	248
Old public renters	59	8	76	22	30	13	39	39	10	298	238
Old minus young private renters (\$ SPG)											
Owners	-76	0	-10	-10	6	6	-14	14	-2	-86	-10
Public Renters	-64	-2	-10	-10	0	6	-14	12	-2	-84	-20
Old/young private renters											
Owners	0.38	0.96	0.88	0.69	1.21	1.80	0.74	1.49	0.86	0.77	0.96
Public Renters	0.48	0.82	0.88	0.69	0.99	1.80	0.74	1.43	0.86	0.78	0.92

Notes: (a) Younger couple are assumed to both be unemployed. Older couple are both retired (i. e. not in the labour force).
(b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.6: Cost Variations with Age for Couples at the Modest but Adequate Standard^{(a)(b)}

	Hsng	Energy	Food	Clthng	HGS	Health	Transpt	Leisure	PerC	Total	Total Excl Hsng
Expenditure (\$PW)											
Young private											
renters	140	11	112	42	37	11	85	44	32	514	374
Young purchasers	245	12	112	42	60	11	85	44	32	643	398
Old owners	48	10	95	25	48	16	56	64	26	388	340
Old owners minus young (\$ SPG)											
Private renter	-93	0	-16	-18	11	5	-29	20	-6	-126	-34
Purchaser	-197	-1	-16	-18	-12	5	-29	20	-6	-255	-58
Old owners/young											
Private renter	0.34	0.97	0.86	0.58	1.29	1.49	0.66	1.46	0.80	0.75	0.91
Purchaser	0.19	0.89	0.86	0.58	0.80	1.49	0.66	1.44	0.80	0.60	0.85

Notes: (a) Younger couple are assumed to be both employed full-time. Older couple are both retired (i.e. not in the labour force).
(b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Similarly, older men do not undergo physical changes to the extent that their personal care needs change significantly, as is the case for women.¹⁵ Therefore, while there are differences by age for couples in the personal care budget, these differences are influenced more by the costs of the female than by costs of the male.

As was the case for the single women discussed earlier, the energy budgets reflect both the greater consumption and cheaper prices faced by the older households.

Turning to the low cost transport budgets, a similar percentage gap can be seen between the budgets of working-age couples and retired couples to that found between the working-age and retired single women. To reiterate, this gap is primarily caused by the fact that the retired couples receive concessions on car-related costs and travel a shorter distance each year than do the working-age couple.

The transport cost gap between the modest but adequate working-age and retired couples is 52 per cent, substantially higher than that between the similar single female households. The primary reason for this is that both members of the modest but adequate working age couple are working full-time and both travel to work by car. This results in a substantial increase in the distance travelled, although not a doubling.

14.6 The Costs of Children

The budget standards of households with different compositions can be used to describe how costs vary with the presence of children. In this section, attention is restricted to couple households. Sole parent households are considered in Section 14.7.

The budget data used for the comparisons of this section are summarised in Tables 14.7, 14.8 and 14.9. The first of these shows the low cost budgets for private renter couples, Table 14.8 shows the corresponding modest but adequate budgets, whilst Table 14.9 shows the modest but adequate budgets for home purchasers. All households include a couple with a 40-year-old male and a 35-year-old female.

In the low cost budgets, the male is always assumed to be unemployed, whilst the female is unemployed when there are no children, and usually not in the labour force when there are children in the household (except in one case where the woman is assumed to be unemployed). This means that if there are costs associated with job search, child cost estimates based upon comparing families with children and childless couples will underestimate the cost of children with labour force status held constant.

Estimates of these job search costs are presented in Section 14.8. They amount to around \$7 a week. The costs of children when labour force is held constant can therefore be approximated by adding \$7 to the budgets of the families with children shown in Table 14.7. This will only be an approximate estimate of the costs of job search for all families with children, as it is based only upon the circumstances of families with a six-year-old girl, but it is still worth including in the calculations.

Similar difficulties do not arise when comparing the modest but adequate budgets, because both husband and wife are assumed to be in full-time employment in all of the families considered in this section. In this case, the costs of children should be interpreted as applying

¹⁵

The 40-year-old and 70-year-old males have been allocated identical amounts for shaving.

Table 14.7: Low Cost Budget Standards for Private Renter Couples With Children^{(a)(b)}

	Commodity Group									
	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
Weekly Expenditure										
Couple (UU)	124	10	86	32	31	7	53	28	12	382
C+G3	156	12	105	38	44	9	53	29	13	458
C+G6	156	12	111	40	39	9	59	37	13	476
C(UU)+G6	156	12	111	44	39	9	62	37	13	483
C+B14	156	12	128	42	51	9	53	35	15	500
C+G6 B 14	196	13	153	55	59	11	61	38	16	602
C+G3 G6 B 14	196	15	172	65	71	13	73	37	17	659
C+G3G6B10B14	196	16	205	78	83	15	78	43	18	732

Key: C = Couple, G = girl, B = boy, UU = both unemployed.

Notes: (a) Males are unemployed in all families. Women are not in the labour force, except where the household is denoted by (UU) in which case she is also unemployed.

(b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.8: Modest but Adequate Budget Standards for Private Renter Couples With Children¹³¹

	Commodity Group									
	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	PerC	Total
Weekly Expenditure										
Couple	140	11	112	42	37	11	85	44	32	514
C+G3	170	13	137	54	125	14	88	43	34	678
C+G6	170	13	142	56	83	14	89	52	34	653
C+B14	170	13	165	57	64	13	89	61	37	669
C+G6B14	213	15	196	71	110	16	92	66	39	817
C+G3G6B14	213	17	221	83	217	19	101	66	40	978
C+G3G6B10B14	213	19	263	97	230	21	122	74	42	1083

Key: As for Table 14.7.

Note: (a) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

only to children in employed households. This is important because the budgets themselves include substantial child care costs which obviously affect the derived costs of children.

The estimates in these Tables encompass variations in both age and the numbers of children. The following two sub-sections consider these two aspects in turn. A method for generalising these results to a wider range of families is developed in Section 14.9.

The Cost of One Child: Variations With Age

Tables 14.10, 14.11 and 14.12 examine how the cost of a single child varies with age. These estimates were derived from each of the respective three Tables presented above.

Table 14.9: Modest but Adequate Budget Standards for Purchaser Couples With Children(a)

	Commodity Group									
	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
Weekly Expenditures										
Couple	245	12	112	42	60	11	85	44	32	643
C+G3	267	14	137	54	164	14	88	43	34	815
C+G6	267	14	142	56	106	14	89	53	34	775
C+B14	267	14	165	57	85	13	89	63	37	790
C+G6 B14	269	15	196	71	132	16	92	65	39	895
C+G3 G6B14	270	17	221	83	238	19	101	66	40	1056
C+G3 G6B10B14	272	18	263	97	259	21	122	74	42	1170

Key: As for Table 14.7.

Note: (a) AH costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.10: Estimates of the Cost of One Child for Private Renter Couples at the Low Cost Standard^{(a)(b)}

	Commodity Group									
	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
Additional Expenditure Compared to Couple (\$SPG)										
Girl, Age 3	32	2	20	6	13	2	0	1	1	77
Girl, Age 6	32	2	25	9	8	2	5	10	1	94
Boy, Age 14	32	2	42	10	21	2	0	7	2	118
Additional Expenditure (Wife Unemployed) (\$ SPG)										
Girl, Age 3	32	2	20	11	13	2	3	1	1	84
Girl, Age 6	32	2	25	13	8	2	8	10	1	101
Boy, Age 14	32	2	42	14	21	2	3	7	3	126
Relative to Couple Expenditure										
Girl, Age 3	0.26	0.19	0.23	0.20	0.43	0.24	0.00	0.04	0.06	0.20
Girl, Age 6	0.26	0.19	0.29	0.27	0.26	0.30	0.10	0.36	0.06	0.25
Boy, Age 14	0.26	0.19	0.49	0.32	0.68	0.27	0.00	0.25	0.20	0.31
Relative to Couple Expenditure (Wife Unemployed)										
Girl, Age 3	0.26	0.19	0.23	0.33	0.43	0.24	0.05	0.03	0.09	0.22
Girl, Age 6	0.26	0.19	0.29	0.40	0.26	0.30	0.16	0.35	0.09	0.26
Boy, Age 14	0.26	0.19	0.49	0.45	0.68	0.27	0.06	0.25	0.23	0.33

Notes: (a) The 'Wife Unemployed' estimates are derived by adding an estimate of the wife's job search costs to the cost for couples with children to make the estimates more comparable to those of the childless couple (who are both unemployed).

(b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.11: Estimates of the Cost of One Child for Private Renter Couples at the Modest but Adequate Standard(a)

	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
Commodity Group										
Girl, Age 3	30	2	25	12	88	3	3	-1	2	164
Girl, Age 6	30	2	30	14	46	3	3	9	2	139
Boy, Age 14	30	2	54	15	27	3	3	17	5	155
Additional Expenditure Compared to Couple (\$ SPG)										
Girl, Age 3	0.21	0.22	0.23	0.29	2.37	0.26	0.03	-0.03	0.05	0.32
Girl, Age 6	0.21	0.22	0.27	0.33	1.24	0.28	0.04	0.20	0.06	0.27
Boy, Age 14	0.21	0.22	0.48	0.36	0.73	0.24	0.04	0.39	0.15	0.30
Relative to Couple Expenditure										

Note: (a) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.12: Estimates of the Cost of One Child for Purchaser Couples at the Modest but Adequate Standard(a)

	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	PerC	Total
Commodity Group										
Girl, Age 3	22	2	25	12	104	3	3	-1	2	172
Girl, Age 6	22	2	30	14	47	3	3	9	2	132
Boy, Age 14	22	2	54	15	26	3	3	18	5	147
Additional Expenditure Compared to Couple (\$ SPG)										
Girl, Age 3	0.09	0.17	0.23	0.29	1.75	0.26	0.03	-0.03	0.05	0.27
Girl, Age 6	0.09	0.17	0.27	0.33	0.78	0.28	0.04	0.20	0.06	0.20
Boy, Age 14	0.09	0.17	0.48	0.36	0.43	0.24	0.04	0.41	0.15	0.23
Relative to Couple Expenditure										

Note: (a) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.10 looks at low cost budgets for couples with one child who are renting privately. The first panel of the table shows the difference between these budgets and those of the corresponding childless couple. However, as noted above, the childless couple are both unemployed whilst the woman in the couples with children is not in the labour force.

To compensate for this, the second panel of Table 14.10 adds an estimate of job search costs to the costs of the couples with a child, to obtain an estimate of what these costs would be if both parents were unemployed. This estimate is based upon the derived budget standard for couples with a six-year-old girl (see Section 14.8 below) and so does not take account of any variations in job search costs with the age of the child.

The third and fourth panels of Table 14.10 presents the estimates shown in the first two panels as a fraction of the couple-only budget.

The addition of a three-year-old girl to a low cost childless couple leads to an increase in the household budget of \$77 per week, or \$84 if the wife is assumed to be looking for work in both cases. This increase is equivalent to 20 per cent of the couple-only budget (or 22 per cent holding labour force status constant). The cost of a six-year-old girl is slightly higher at \$94 (or \$101) a week, whilst the cost of a 14-year-old boy is higher still at \$118 (or \$126) a week. The latter (bracketed) figure is 33 per cent of the couple-only budget.

As might be expected, the absolute level of child costs for households at the modest but adequate standard is much greater than for the low cost households (Tables 14.11 and 14.12). The increase in costs is most marked for the three-year-old child because of the impact of child care costs. In this case, the cost of the three-year-old (relative to the childless couple) are 32 per cent and 27 per cent for couple-only renters and purchasers, respectively (compared with between 20 per cent and 22 per cent at the low cost standard).

Child care and school-related costs are also very important in determining how the pattern of child costs vary with age. As noted above, for households at the low cost standard, child costs steadily increase with age—reflecting the greater consumption needs of older children (though there are some child care costs for these families—see below).

In contrast, for households at the modest but adequate standard, child costs are highest for the three-year-old, reach their lowest point for the six-year-old, and then increase for older children (Table 14.11 and 14.12).

The low cost budgets indicate that the largest absolute increase in expenditure for young children is in housing, whilst food is most important for the older (14-year-old) boy. As a proportion of the couple budget for the same commodities, the increases are greatest in the household goods and services budget.

The \$32 a week increase in the housing budget shown in Table 14.10 represents the rent difference between the first quartile rents for one bedroom and two bedroom home units in Hurstville.¹⁶ The increase in dwelling size follows from applying the housing occupancy standards described in Chapter 3.

For households at the low cost standard, the household goods and services budget decreases by \$5 when the three-year-old child is replaced by a six-year-old child. This is due to the allocation of eight hours of occasional child care per month for the three-year-old, allowing some respite and time for shopping, appointments and job search for the parent. The increase of \$13 between the six-year-old girl and the 14-year-old boy is due to the higher costs of schooling for the older child, combined with the allowance made for telephone calls by the teenager.

As noted above, at the modest but adequate standard (where both parents are working full-time), child care costs have a much greater impact on the household budget, leading to a substantial decrease in the contribution of the household goods and services budget to child costs between the ages of three and six years.

The BSU food budgets follow patterns of recommended nutritional energy needs with age, whilst in the clothing and footwear budget, the cost of a first child at both the low cost and modest but adequate standards increases slightly with age reflecting the higher prices for larger sized clothing and footwear.

¹⁶ These rents are adjusted before their inclusion in the BSU housing budget, as explained in Chapter 3.

The low cost and modest but adequate energy budgets increase by around \$2 for each child, in response to increased energy usage associated with heating water, cooking and heating the house. (The BSU energy budgets make no differentiation by the age of the child).

The cost of medications reduces with the age of the children in the BSU health budget (Chapter 8). This is due to the decrease in the number of GP visits (and hence prescribed medication expenditure) as the child ages. Non-prescription medication also decreases with age for the six-, 10- and 14-year-old children. Dental costs only increase after the age of three and then remain constant for each child, as the three-year-old does not need to have her teeth scaled.

There are insignificant differences in the personal care costs of the three- and six-year-old children. By the age 10, personal care needs begin to increase: the 10-year-old now has a watch, and he has also been allocated a mouthguard as the leisure budget assumes that he plays soccer (Chapter 10). The three youngest children have their haircuts at home and all households with at least one child of this age have been allocated a home hair cutting kit.

The jump in expenditure on personal care items for the 14-year-old boy at both the low cost and modest but adequate standards can be explained by his increased needs as he enters puberty. These require the inclusion of costs associated with deodorants, a professional haircut, antiseptic face cleanser and pimple cream.

Both the low cost and modest but adequate transport budgets increase with the inclusion of a child. The household does not buy a larger car in response to having a child, although longer distances are travelled each year. The three- and six-year-old girls require car restraints and the 14-year-old boy also makes leisure trips by public transport. The combination of these factors leads to the modest but adequate transport budgets increasing overall by the same amount, regardless of the age of the child.

At the low cost living standard, on the other hand, the increase in the transport budget is higher for the six-year-old girl than for the children of other ages. This is because the parents are required to make special journeys to drive her to and from school (on the way to and from work for the case of households at the modest but adequate standard).

All children are allocated their own leisure goods, which vary according to age and gender (Chapter 10). Children above the age of three are also assigned different organised sporting activities and the cost of these activities varies with age. The number of children also affects the cost of holiday accommodation and has a directly proportional effect on the holiday food loading (designed to cover drinks, ice cream, other treats and special meals whilst on holiday).

The 14-year-old boy in all households at both the modest but adequate and low cost standards has been allocated a personal computer, printer and computer software. Each child aged 10 years or more owns a personal radio/cassette player. Households with children also have a more extended variety of different board games. However, these extra expenses are partially offset by the way that caring for young children constrains adult leisure time.

The Costs of Children: Larger Families

The budgets also permit the comparison of the costs of children in larger families. However, it is not possible to address the question of economies of scale independently of age and gender, since the larger households also contain children of more varying ages than those in smaller households.

Instead, the following three tables describe the increases in household budgets as household size increases from zero to four children. This is not meant to represent the actual incremental costs of children as households grow in practice. In reality, the incremental costs of additional children are usually small, and comprise just the additional costs of an infant, together with the increased costs associated with the ageing of the children already in the family.

Rather than a description of how the budget of a particular family would grow over time, the budgets presented in this sub-section should be considered as examples of comparisons of families which are identical except for the presence of an additional child. Section 14.9 presents a more comprehensive set of costings based upon an extension of the costs shown here.

The first line of Table 14.13 shows the increase in cost associated with a 14-year-old boy in a privately renting low cost household (and is identical to the corresponding row in Table 14.10).¹⁷ The second line shows the *additional* costs for a comparable family which also includes a six-year-old girl. The third line shows the increase in household budget when the couple with three children (girls aged three and six and a boy aged 14) is compared with that of a couple household with two children (a girl aged six and a boy aged 14). The remaining line shows the increases associated with the addition of a fourth child (a 10-year-old boy).

Table 14.13: Incremental Child Costs for Couples Renting Privately at the Low Cost Standard^{(a)<(b)}

	Commodity Group									Total
	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	PerC	
Additional Dollars Per Week										
C+B14	32	2	42	10	21	2	0	7	2	118
C-H36B14	40	2	25	13	8	2	8	4	1	102
C-K36B14G3	0	1	20	11	12	2	12	-1	1	57
C+G6 B14 G3 B10	0	1	32	12	12	2	5	6	1	72

Key: As for Table 14.7.

Notes: (a) The first row (C+B14) shows the *additional* cost of adding a 14-year-old boy to a couple-only household. The second row shows the *extra* cost of adding a six-year-old girl to the couple plus 14-year-old boy household, and so on.

(b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

In broad terms, there do appear to be substantial economies of scale in household costs as the number of children increases, although this is complicated by the variation in the ages of the children. In housing, for example, scale economies are clear, since the housing occupancy standards do not require additional bedrooms for the three-and four-child households.

Moreover, purchaser households with one child at the modest but adequate standard already have a three-bedroom house and so do not need to expand this when a fourth child is added (Table 14.15). The main point to note here is that if the housing occupancy standard were

¹⁷ Since the budget standard for a couple with a six-year-old girl is also available, it is possible to begin with the six-year-old girl and then estimate the additional cost of the 14-year-old boy. These costs can be derived from Tables 14.7, 14.8 and 14.9.

applied to different combinations of the ages and genders of children than those contained within the BSU household types, then quite different dwelling sizes might be required.

For example, the four-child BSU households only require three bedrooms, since the younger two girls share a bedroom, as do the two older boys. If the older children were of opposite gender, however, the housing occupancy norm would imply the need for an additional bedroom and this would affect the estimates of the costs of (the older) children.

Economies of scale in transport are also apparent for the first three children. A substantial proportion of the BSU transport budget is the cost associated with purchasing and running a car. Both purchasing and running costs tend to increase with the size of the car, and BSU households with three and four children are assumed to buy bigger, more expensive cars (see Table 9.3).

The presence of children also warrants increased travel, although there are substantial economies of scale in journeys assuming, for example, that the children go to school together or nearby, and have similar outside of school interests.

Table 14.14 shows corresponding data for private renter households at the modest but adequate standard. It appears that economies of scale are less for these households than for their low cost counterparts, as the cost increments remain much the same as household size increases. One reason for this is the costs of care for younger children in modest but adequate households, whether this takes the form of before- and after-school care, vacation care or long day care. The costs of an older child (the 14-year-old boy) are low by comparison.

Table 14.14: Incremental Child Costs for Couples Renting Privately at the Modest but Adequate Standard(a)(b)

	Commodity Group									
	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	PerC	Tola
Additional Dollars Per Week										
C+B14	30	2	54	15	27	3	3	17	5	15
C+G6B14	43	2	30	14	46	3	3	5	2	V
C+G6B14G3	0	2	25	12	108	3	9	0	1	\
C+G6B14G3B10	0	2	42	14	13	3	22	8	2	10

Key: As for Table 14.7.

- Notes:** (a) The first row (C+B14) shows the *additional* cost of adding a 14-year-old boy to a couple-only family. The second row shows the *extra* cost of adding a six-year-old girl to the couple plus 14-year-old boy household, and so on.
 (b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Another factor behind the pattern of household costs is that modest but adequate living standard households with two or more children have been allocated a second television set which increases the costs of leisure in these households (although this does not apply at the low cost level). The older children, both boys, are also allocated radio/cassette players and the 14-year-old has a computer which further adds to the leisure budget.

Table 14.15: Incremental Child Costs for Purchaser Couples at the Modest but Adequate Standard(a)(b)

	Commodity Group										
	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total	
Additional Dollars Per Week											
C+B	14	22	2	54	15	26	3	3	18	5	147
C+G6	B14	1	2	30	14	47	3	3	3	2	104
C+G6G14C3		1	2	25	12	106	3	9	1	1	161
C+G6BI4G3 BIO		1	2	42	14	21	3	22	8	2	114

Key: As for Table 14.7.

Notes: (a) The first row (C+B14) shows the additional cost of adding a 14-year-old boy to a couple-only family. The second row shows the extra cost of adding a six-year-old girl to the couple plus 14-year-old boy household, and so on.
 (b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

The cost of children's leisure goods, however, is not always directly additive because the three-year-old girl uses some items from her six-year-old sister's toy box (see Chapter 10). It also needs to be remembered that, especially at the low cost standard, leisure appliances—television, video and stereo music systems—are jointly consumed.

14.7 The Costs of Sole Parenthood

There are, in principle at least, several different ways in which the costs associated with sole parenthood can be expressed. These different indicators are summarised in Tables 14.16 and 14.17 for private renter households at the low cost and modest but adequate standards, respectively.

The first indicator is the same as that used to describe the cost of children in couple households in the previous section. Here, this involves comparing the budget for a sole parent with that for a comparable single adult, and can be thought of as the additional cost of children when a single woman has a child.

If the notation (a,c) is used to denote a household containing a adults and c children, then this comparison can be represented as $(1,c)-(1,0)$. This is shown in Panel A of the two tables.¹⁸

Low Cost Results

At the low cost standard, Table 14.16 indicates that the presence of a six-year-old girl adds \$78 a week to the budget of a single female. Two children add \$192 a week, or an average of \$96 per child.¹⁹

As in the couple comparisons presented in the previous sub-section, it should be noted that these two low cost households have a different labour force status: the single female is

¹⁸ An alternative approach would be to calculate ratios rather than differences.

¹⁹ The fact that per-child costs increase when the number of children increases from one to two reflects the ages of the children.

Table 14.16: Indicators of Sole Parenthood Costs for Private Renters at the Low Cost Standard (\$ per week)^{(a)(b)}

	Hsgn	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
A: Sole Parent Cost Compared to Single Adult (l, c) - (1, 0)										
One child (Girl age 6)	32	0	25	9	8	2	-1	3	1	78
Two children (G6, B10)	72	2	57	21	24	4	1	8	2	192
B: Compared to Corresponding Cost for Couples [(l, c)-(l, 0)] - [(2, c)-(2, 0)]										
One child (Girl age 6)	0	-2	0	0	0	0	-7	-7	0	-16
C: Sole Parent Costs Compared to Same Size Two Adult Households (l, c) - (2, c-l)										
Two person household	32	-2	-22	-5	2	-2	-4	-4	-5	-10
Three person household	40	-2	-14	-1	10	-2	-7	-8	-4	10
D: The Cost of the Second Adult (2, c) - (l, c)										
One child (Girl age 6)	0	4	47	14	6	4	9	14	5	104

Notes:

- (a) Comparisons are based upon the budgets of sole parents not in the labour force, single females who are unemployed, couples with the husband unemployed and wife not in the labour force (when there are children) and with the wife unemployed (when there are no children),
- (b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.17: Indicators of Sole Parenthood Costs for Private Renters at the Modest but Adequate Standard (\$ per week)^{(a)(b)}

	Hsgn	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
A: Sole Parent Cost Compared to Single Adult (l,c) - (1,0)										
One child (Girl age 6)	29	2	30	14	46	3	2	8	2	136
Two children (G6, B 10)	73	5	72	28	100	5	5	15	4	307
B: Compared to Corresponding Cost for Couples [(l, c)-(l, 0)] - [(2, c)-(2, 0)]										
One child (Girl age 6)	0	0	0	0	0	0	-1	-1	0	-3
C: Sole Parent Costs Compared to Same Size Two Adult Households (l, c) - (2, c-l)										
Two person household	29	-1	-31	-4	39	-4	-8	-8	-8	6
Three person household	43	-1	-19	-4	47	-4	-8	-9	-8	38
D: The Cost of the Second Adult (2, c) - (l, c)										
One child (Girl age 6)	0	3	61	18	7	6	11	16	10	133

Notes:

- (a) Sole parents, husbands and wives are all assumed to be in full-time employment.
- (b) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

unemployed whilst the sole parent is not in the labour force. For couples, the additional cost of the wife searching for work is, as noted earlier, \$7 a week. One (approximate) method for controlling for the difference in work force status would be to add this to the sole parent costs to provide an estimate of the costs of children when the sole parent is also looking for work (although this has not been done).

The second panel of Table 14.16 shows how the costs in Panel A compare with the corresponding calculation for couple households. Panel B shows the extent to which the additional cost of children is greater for sole parents than it is for couples. Using the notation introduced above, this calculation can be represented as $[(1,c) - (1,0)] - [(2,c) - (2,0)]$.²⁰ (Since the work force issue discussed earlier applies equally to couples and sole parents, there is no need to make any special adjustments for work force status in this calculation).

However, in this case there is a difference in the age of the second child (10 years for the sole parent household and 14 years for the couple household), and so the results for the two two-child households are not comparable. Panel B of Table 14.16 thus only provides results for one-child households.²¹

In Table 14.16, the additional cost of children for sole parents is estimated to be \$16 a week *lower* than that for couples. This stems primarily from the lower additional child costs in the areas of transport, leisure and, to a lesser extent, energy. These lower costs in turn arise mainly because sole parent pensioners receive many more concessions than do unemployed couples, an issue which is discussed in more detail below.

An important limitation of this method of describing the costs of sole parenthood, however, is that these results depend crucially upon the relative costs between single adults and couples without children. As noted in Section 14.4, the BSU budget standards show higher relative costs for single adults than the Australian social security system. Furthermore, it can be argued that single adults are not an appropriate reference point for the evaluation of sole parent costs, since they are often at quite different life-cycle stages.

Panels C and D of Table 14.16 therefore show cost comparisons which do not depend upon the costs of single adult households. It is often suggested that a sole parent household comprising a certain number of people has greater needs than a couple household containing the same number of people. This is because couples can share some commodities which sole parents do not share with their children (such as bedrooms). Panel C therefore compares the costs of households of the same size. In terms of the notation introduced above, the panel shows estimates of $(1,c) - (2,c-1)$, for values of $c = 1$ and $c = 2$.

The sole parent with one child has lower costs across a wide range of commodities than a couple with no children—particularly for food. However, this is almost outweighed by the increase in housing costs, which are a consequence of the fact that the sole parent is required to rent a two bedroom unit, whereas the couple only requires one bedroom.

For three-person households, the comparison is between a sole parent with three- and a 10-year-old children and a couple with a three-year-old. The difference in food consumption

²⁰ This expression can be rearranged as $[(2,0) - (1,0)] - [(2,c) - (1,c)]$ and so can also be described as the difference between the cost of the second adult when there are no children in the household and when there are children present.

²¹ The method developed in Section 14.9 could in principle be applied to estimate the cost of sole parenthood in two-child households.

between a 10-year-old boy and a 40-year-old male is now only \$14 per week, but housing costs are again higher for the sole parent household because of their need for an additional bedroom. The high cost of a three-bedroom unit means that, in total, a sole parent with two children is estimated to need \$10 a week more than a couple-headed household with the same number of people.

Finally, Panel D of Table 14.16 shows the difference in costs between one-child sole parent and couple households. This can be described as the cost of the second adult, that is, (2,c) - (1,c). As might be expected, the total cost of the second adult is considerable. However, for household-based commodities such as housing, little increase in expenditure is implied by the budgets.

In some cases, such as in the budgets for food and clothing and footwear, the different expenditure patterns shown in Table 14.16 (and in Table 14.17) arise in a straightforward fashion from the needs and hence the expenditure requirements of the individuals in the household. Other, household-based expenditure areas show a more complicated pattern. The more important of these are now described.

Panel A of Table 14.16 suggests that a six-year-old child adds nothing to the low cost energy budget of a single female. In fact, the child does add to energy usage, but what she adds is compensated by NSW State Government energy concessions for pensioners. The single female becomes a sole parent pensioner when the child joins her household. Hence, as Panel B illustrates, the energy cost of children for sole parents is less than it is for couples.

Panel C confirms the concession advantage of sole parent pensioners. The BSU energy budgets also assume that children consume less hot water than adults. The energy costs associated with the second adult, summarised in Panel D, is double the cost of energy for a child. But it is inflated by the effect of pensioner concessions.

The main reason for the increase in costs with one child is due to the allowance for extra furniture and furnishings for the two-bedroom unit compared to the single-bedroom unit allocated to the single woman. Going from one to two children also substantially increases sole parent costs as dwelling size increases further.

As well as furnishings, there are additional durable expenditures required for three people. Larger sized (and therefore more expensive) appliances (fridge and washing machine) are also necessary for three people and for all households with children, an allocation for a sewing machine is included in the budgets. Schooling costs for six- and 10-year-old children also increase costs in the single parent budget.

In Panel B, the incremental costs of children are the same as for couple families with one child. In Panel C, the household goods and services budget is higher for sole parents because of the additional costs associated with their larger dwellings, particularly for the larger household.

The single parent owns the same type of car as the single female, but makes trips specifically for the child, which add substantially to her transport costs. The extra costs associated with the first child, summarised in Panel A, are again reduced by the NSW Government pensioner concessions on registration and licence fees and by the fact that the sole parent pensioner is not required to make the job search trips undertaken by the single unemployed female. Furthermore, the sole parent pensioner is allocated a smaller travel distance for leisure activities than is the single female.

Panel B shows that the additional transport costs of children are substantially higher for couples than for single parent pensioners. This difference is due to the effect of pensioner concessions and differences in the distances travelled for leisure and social activities as between the sole parent pensioner and the single female. Married females are allocated similar leisure distances regardless of whether or not they have children.

Panel C shows that the transport costs of a couple without children exceed those of a sole parent with one child due to pensioner concessions and the fact that the sole parent is not attached to the labour force whilst both the husband and wife are looking for work. In the comparison of the budgets of the three-person household, the couple budget also exceeds the sole parent budget.

This implies that the estimate of the additional cost of the first child in sole parent households is \$7 *less* than the corresponding estimate for couples. However, what this \$7 represents is not so much related to the costs of a child but rather to the cost of a single female. The sole parent is allocated leisure activities amounting to \$7 less than for a single female. In fact, the costs of leisure for a child are the same regardless of whether the child is in a couple family or a sole parent family (Table 14.16; Panel B).

Modest But Adequate Results

Corresponding results for private renter households at the modest but adequate standard are shown in Table 14.17. In broad terms, the patterns of relative costs are similar to those found at the low cost level. The additional cost of the first child is slightly lower for sole parents than for couples, but at the same time sole parent households require more than equal-sized couple households. Again, this latter result is mainly due to housing and housing-related expenditures, as reflected in both in the housing and household goods and services budgets.

However, sole parents at the modest but adequate standard do not receive a pension, and hence do not receive the same range of pension-related concessions as the low cost sole parent households. This is particularly important for transport costs, where it means that (in *net* terms) child-related transport costs are similar for sole parents households as for couple households.

One feature of these results that should be noted is that the child care costs for the sole parent households with a six-year-old girl are assumed to be the same as the child care costs of the couple with an identical child. Whilst in both cases the mother is assumed to be working full-time, it might be argued that the couple would be more likely to stagger their work hours so as to reduce their child care costs.

This is an example of the home production effects discussed earlier in this chapter, and as noted there, similar points could be made with respect to other aspects of home production. These arguments would suggest that the indicators of relative child costs for sole parents should be higher than shown in the Tables of this section.

Discussion of Results

Having presented the costs of sole parenthood estimated from the deductive method, some reflections on the overall pattern of results and the appropriateness of the method are warranted.

Taken at face value, the estimates in Panel B of both Tables 14.16 and 14.17 suggest that the costs of sole parenthood are negative—or that the costs of a child in a sole parent household are lower than the costs of a similar child in a couple household. This is a surprising result and needs further justification, or the limitations of the method used to derive it need to be highlighted.²²

Having given careful consideration to the validity of the deductive method as applied to estimate the cost of sole parenthood and the issues surrounding it, the appropriateness of the estimates of the costs of sole parenthood presented in Tables 14.16 and 14.17 is subject to several very important reservations.

One of these concerns the problematic aspects of the entire deductive approach which were expressed in Section 14.2. There, the difficulties of ensuring that the standard of living is held constant across different households makes comparisons of the budgets of two different households problematic. These problems assume an even greater significance for the results in Panel B of Tables 14.16 and 14.17, as these rely upon manipulating the budgets for four different household types—single adults, sole parents and couples with and without children.

A second aspect which tends to reduce the costs of sole parenthood is the fact that the budget standards from which these cost estimates are derived already incorporate a number of concessions that are targeted to sole parents. This has the somewhat paradoxical result of making the *net* cost of sole parenthood appear lower than couples.²³

More important than these considerations is the view that the whole methodology used to develop the BSU budget standards makes them inappropriate as a basis for estimating the costs of sole parenthood.

In particular, the BSU budget standards exclude many of the important hypothesised indirect costs of sole parenthood, because the effect of time constraints was not adequately incorporated, nor was the importance of goods and services produced in the home. Cass, Keen and Wyndham (1983) note that there are direct costs of children (such as food, clothing etc.) and indirect costs which are usually associated with the income forgone (and depreciation of human capital) by the primary child carer, who either leaves paid work or reduces her hours of paid work.

Whiteford (1991) suggests conceptualising these costs in a framework in which the presence of the carer in the household, while reducing family income (current and potential) earned in the labour market, also reduces the need to spend amounts on some items because of the value of the domestic work undertaken by the carer (such as shopping, meal preparation and child care).

Using this framework, Whiteford describes the cost of sole parenthood by considering the financial implications of a couple separating. He considers it more appropriate to define the cost of sole parenthood with reference to dual parenthood, rather than with reference to a single childless female (as is done in the Panel B estimates of Tables 14.16 and 14.17).

²² Ford (1996). in his analysis of UK expenditure data found that the costs of sole parenthood appear to be at least as great as, or more than those of couples with children. He also claims that his conclusions mirror the findings of similar research (e.g. Dickens, Fry and Pashardes, 1995).

²³ The impact of these concessions could be isolated and their impact on the cost estimates although this has not been attempted.

On separation, if the wife keeps the children the direct consumption needs of the mother and children can be assumed to be unaffected, whilst the direct consumption needs of the husband no longer have to be met. However, the cost of meeting the direct consumption needs of the mother and children may have risen due to the effects of economies of scale in the areas of housing and energy costs.

On the indirect costs side, the mother's unpaid work time will be reduced by the amount of time which was an input into her ex-partner's consumption (individual and that part of joint consumption that accrues to him), but increased by the ex-partner's previous time input into her own consumption (joint and individual) and that of the children.

However, within the BSU budget standards approach, the effect on the indirect costs of children resultant on sole parenthood has not been estimated. Nor has the effect of the wife leaving her husband on a mother's unpaid work time been reflected in the budgets, nor the amount of the time spent in unpaid work (such as child-care) by the husband.

In fact, the BSU budgets assume that much of the unpaid work generally undertaken by married males, such as house maintenance and car-repairs, is purchased in the market. Finally, no account has been taken in the BSU budget standards of the financial implications for a separated female of her forced exit from the paid labour market.

As a result, calculating the costs of sole parenthood by comparing the difference in costs between a sole parent household and a single female household and between a childless couple household and a couple with children household is fundamentally flawed. Put simply, there is no guarantee that the method is comparing households with the same standard of living.

A basic principle of the entire budget standards methodology is that households who purchase the same items have the same standard of living. This can also be problematic in some instances which impact on estimates of the cost of sole parenthood.

The BSU leisure budget is particularly problematic when it comes to assuring that households are on similar standards of living. It generally allocates leisure expenditure to an individual adult, based on the amount of time they have available for leisure activities.

Whilst married females are conceptualised as the same person regardless of whether or not they have children, their free time declines as the number of children in the household increases. Hence, the mother of four spends far less on leisure (active and passive) than the childless married female.

In contrast, the single female and single mother are conceptualised differently (the single female attends more concerts and movies, for example) and also have different leisure allocations based on differing time constraints. Rather than normatively assume that all adult females have the same leisure needs and thus allocate them equal leisure time, the BSU approach generally follows the behavioural leisure time patterns.

It is possible that despite this, the standard of living of adult females is constant across different households. Perhaps the leisure of childless females is a substitute for time spent with children. However, this assumption runs counter to the assumption implicit in the budget standards approach that the standard of living of two households will only be the same when they *consume* the same items.

Whilst the leisure budget is obviously problematic, other budgets may also fail to satisfy time constraints. For example, food is allocated to household members on the basis of their nutritional energy requirements. Households receive the same ingredients regardless of any time constraints. While it is possible that time-constrained households may take less time to prepare meals from those ingredients, it is difficult to see how they could do this in practice.

Such issues compound the problems of calculating the cost of sole parenthood from the BSU budget standards. Much of the calculated cost of sole parenthood in fact lies in the parent's response to time constraints. To provide the children with satisfying meals, the parent may need to buy more take-away food. To assume that she has adequate relaxation, the parent may need to buy leisure through paid child care and/or decreasing the time spent in preparing meals, and so on.

Such considerations suggest that, at a minimum, the estimates of the costs of sole parenthood presented in this Section must be heavily qualified and treated with extreme caution. More realistically, they serve to illustrate that the BSU budget standards do not provide an adequate basis for estimating the cost of sole parenthood.

14. 8 The Costs of Employment and Job Search

Whilst labour force status is held constant for most families in the budget standards study, for households comprising a couple with a six-year-old girl, budgets based upon a range of labour force characteristics were explicitly included as part of the research design.

The reason for this was that a comparison of these budgets can be used to provide estimates of the costs of job search and employment. Table 14. 18 shows the results of this comparison for low cost private renters.

Table 14.18: Employment and Job Search Cost for Private Renters at the Low Cost Standard(a)

	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
Labour force status of husband and wife										
Un NILF	156	12	111	40	39	9	59	37	13	476
Un Un	156	12	111	44	39	9	62	37	13	483
FT NILF	156	12	112	41	39	9	71	34	13	487
FT Un	156	12	112	45	39	9	75	35	13	496
Cost of employment for husband										
Wife NILF	0	0	2	1	0	0	12	-3	0	12
Wife Un	0	0	2	1	0	0	13	-2	0	14
Cost of job search for wife										
Husband Un	0	0	0	4	0	0	3	0	0	7
Husband FT	0	0	0	4	0	0	4	1	0	9

Key: UN = unemployed; NILF = not in the labour force; FT = full-time.

Notes: (a) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

For these low cost households, four different labour force combinations have been costed. These assume that the husband is either unemployed or employed full-time, whilst the wife is assumed to be either unemployed or not in the labour force. The budgets for these four

combinations are shown in the first panel of Table 14.18 (the husband's labour force status is shown first, followed by that of the wife).

The second panel of the table shows the increase in the household budget when the husband goes from being unemployed to employed (with the wife remaining not in the labour force or unemployed, respectively), whilst the third panel shows the increase in the budget when the wife goes from being not in the labour force to unemployed. These estimates are derived directly from the (unrounded values of) the budget estimates shown in the first panel.

The main cost associated with the husband's employment is in the transport budget, where the annual distance travelled by car, and hence the car's running costs, depends crucially on the labour force attachment of the adults in the household. As explained in Chapter 9, the household members rely on the car to travel to work, to job interviews and to the Department of Social Security (DSS) and the Commonwealth Employment Service (CES).

When there are conflicting needs, such as when one of the partners is working full time and the other has a job interview, the trips are shared whenever possible. Allowance has also been made for use of public transport where appropriate.

The transport costs of job search for the wife are slightly larger when her husband is working full time than when her husband is unemployed. This results from the fact that when both partners are unemployed, they are assumed to travel jointly to the DSS and CES whenever possible.

In the leisure budget, on the other hand, employment leads to a slight reduction in expenditure because of a reduction in the available leisure time.

Somewhat shorter lifetimes for a number of items (considered as suitable when in employment) in the clothing and footwear budget are allocated to both men and women who are in the labour force.²⁴ This leads to the increases in clothing costs with both job search and employment shown in Table 14.18.

At the modest but adequate standard, a different set of employment costs are considered, reflecting the differing labour force attachments of the adults in the household at this standard. Tables 14.19 and 14.20 show how costs increase as the wife enters the labour force into a part-time job, and then starts a full-time job. Table 14.19 refers to private renters and Table 14.20 to purchasers. In fact, however, the cost differences for these two tenures are virtually identical.

Again, transport costs are important, though in some cases increases in labour force participation actually decrease costs. This is because of the increased use of private transport by the family with the greater employment participation, and the fact that the marginal costs of car transport are lower than the cost of public transport in the transport budget.

More specifically, the transport cost calculation works as follows: each household is allocated only one car. Workers rely heavily on the car to travel to and from work. When both partners

²⁴ The clothing and footwear budget in Chapter 6 describes the method used to determine lifetimes ("or items worn by those who are employed, unemployed and not in the labour force.

Table 14.19: Employment and Job Search Costs for Private Renters at the Modest but Adequate Standard(a)

	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
Labour force status of husband and wife										
FT NILF	170	13	141	50	50	9	88	56	30	608
FT PT	170	13	141	56	53	9	102	54	31	630
FT FT	170	13	142	56	83	14	89	52	34	653
Differences										
Cost of second PT earner	0	0	0	6	3	0	14	-2	1	22
Cost of second FT earner	0	0	1	6	34	4	0	-4	4	45
Cost of moving from PT to FT	0	0	1	0	31	4	-13	-2	3	23

Key: FT = employed full-time; PT = employed part-time; NILF = not in the labour force.

Notes: (a) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

Table 14.20: Employment and Job Search Costs for Purchasers at the Modest but Adequate Standard^{(a)(b)}

	Hsng	Energy	Food	Clothing	HGS	Health	Transpt	Leisure	Per C	Total
Labour force status of husband and wife										
FT NILF	267	14	141	50	72	9	88	58	30	730
FT PT	267	14	141	56	75	9	102	53	31	750
FT FT	267	14	142	56	106	14	89	53	34	775
Differences										
Cost of second PT earner	0	0	0	6	3	0	14	-5	1	19
Cost of second FT earner	0	0	1	6	34	4	0	-5	4	44
Cost of moving from PT to FT	0	0	1	0	31	4	-13	0	3	25

Key: As for Table 14.19.

Notes: (a) All costs have been rounded to the nearest dollar. Totals, differences and ratios are calculated from the original data.

work full-time we assume that they are able to drive to work together, although some distance between places of work is assumed. It is also assumed that the households rely on the car for shopping and travelling with children.

When the male partner works full-time and the female partner is not in the labour force, it is assumed that the wife has access to the car one day a week for shopping and transporting children to medical appointments etc. Hence, the husband is assumed to take public transport to and from work once a week. The resulting increase in public transport costs almost outweighs the car costs associated with the wife working full-time.

If the wife works part-time (five hours a day for three days a week) rather than full-time, she is assumed to travel to work by car with her husband, returning by car whilst he travels home by public transport. The transport costs of the wife moving from a part-time job to a full-time job are, as a consequence, negative.²⁵

The other main cost associated with the wife's employment is child care costs, which enter into the household goods and services budget. In particular, vacation care is required for school-age children when the wife starts part-time work. When the second part-time earner moves to full-time work, extra costs of before- and after-school care and an additional two days a week of vacation care are also required.

Once again, increases in employment lead to slight reductions in leisure expenditure, whilst personal care expenditures for women increase slightly, reflecting the reduced lifetimes for make-up and some items of jewellery (e.g. earrings).

14.9 Customisation of the BSU Budget Standards: An Exploratory Methodology

One of the guiding principles of budget standards research is that the budget for each household depends upon a complex interaction between the assumptions made in all of the different commodity areas. For example, the type of dwelling the family lives in determines their housing costs, but also all the other costs associated with running a household. Similarly, the location of the dwelling is intimately related to transport costs. Transport costs, in turn, are related to employment status and leisure activities.

Because of the need to model these complex relationships in extreme detail, the calculation of a budget standard for each household type is resource intensive. For this reason, the BSU project has been restricted to a description of budgets for only 46 different household types. Across these households, there is considerable variation in the assumed standard of living, in employment status, in housing tenure and in household size and composition.

However, given the wide range of applications for which budget standards can be usefully employed, it is unlikely that the range of households described here will be sufficient for all applications.

Ideally, the generation of customised budgets for household types other than the ones considered here requires a detailed consideration of each area of the household budget and a careful examination of the appropriateness of the whole set of budget items to that household.²⁶ However, there have already been many examples quoted in the Report which illustrate the fact that even the simplest modification to household circumstances can have wide ranging implications for a budget standard.

In this section, a methodology is developed that can be used to provide approximations of budgets for household types beyond those considered above. The basic principle employed is that, to a certain degree of approximation, the budget standards calculated in this study can be described as a linear function of various household characteristics.

²⁵ These rather complex transport configurations illustrate the difficulty of arriving at a single representative figure for even the transport cost component of the costs of employment or job search.

²⁶ The computer spreadsheets which accompany this Report are designed to assist with the adaptation and customisation of the derived budgets (see Chapter 15).

As long as these characteristics are chosen carefully so as to reflect the main influences on household budget requirements, then they can be used to generalise to other household types. The following discussion provides some examples of how this might be done to describe the characteristics of a limited number of other (couple) households.

The Costs of Children in Larger Married Couple Households

As was apparent in Section 14.6, only a limited number of budgets for households with more than one child have been calculated. Indeed, even if attention were restricted to the four types of children in the BSU study, girls aged three and six and boys aged 10 and 14, to consider all possible combinations of these children in larger families would be a very large task.

However, many aspects of the household budget standards are approximately linear, and in other cases they follow clear rules. The food and clothing and footwear budgets are examples of budgets which are assembled from the requirements of individuals, and so apart from the assumptions made about hand-me-downs, are likely to increase in a uniform fashion as the number of children of a particular type increases.

On the other hand, the housing budgets increase in a discontinuous fashion with household size because of the nature and application of the normative housing occupancy standards. This in turn influences other expenditures which are related to dwelling size.

Despite this, with a careful choice of explanatory variables, it is possible to summarise the budgets calculated in the study in a way which will enable sensible—if qualified—generalisation to a limited number of other household types.

Table 14.21 shows how this can be done for the couple households at the low cost standard of living who are renting privately. There are eight of these households included in the budget standards study, and the Table shows their total budgets, together with a number of variables which summarise key features of each household.²⁷

Table 14.21: Budget Standards for Private Renter Couples at the Low Cost Standard^(a)

Household Type	Total Budget (\$PW)	Any children in HH?					No. of bedrooms with 2 children	Wife unemployed 1 =yes
		l=yes	Age 3	Age 6	Age 10	Age 14		
Couple (UU)	381.63	0	0	0	0	0	0	1
C+G6B14	602.08	1	0	1	0	1	0	0
C+G6	475.51	1	0	1	0	0	0	0
C(UU)+G6	482.71	1	0	1	0	0	0	1
C+B14	500.06	1	0	0	0	1	0	0
C+G3	458.16	1	1	0	0	0	0	0
C+G3G6B14	659.29	1	1	1	0	1	1	0
C+G3 G6 10 B14	731.77	1	1	1	1	1	2	0
Regression Coefficients	374.43	-0.94	84.67	102.02	99.94	126.57	-27.46	7.20

Key: As for Table 14.7.

Note: (a) All households are of working age and have the husband unemployed and the wife not in the labour force, apart from the two households, denoted (UU), where both partners are unemployed.

²⁷ The total budgets in Table 14.21 are the same as those shown in Table 14.7, except for the budget for the couple who are both unemployed and have one child, which is drawn from Table 14.18.

The seven summary variables shown in Table 14.21 have been chosen to reflect key aspects of the way in which the BSU budget standards have been drawn up. The first variable is a flag indicating whether or not there are any children in the household.²⁸ The next set of summary variables record the number of children of different ages. While there is never more than one child of each age, a large component of child costs is calculated on a per-child basis, and so would be expected to increase linearly with the number of children.

The most important influence on the extent of economies of scale with household size comes from the use of the normative housing standard.²⁹ This is represented here by a variable which counts the number of bedrooms containing two children. The final flag variable indicates whether or not the wife is unemployed and searching for work. This variable is necessary since the labour force status of the wife differs between the household types and as shown earlier, this has an impact on the budget standard, mainly through the effects on transport and clothing costs.

Since there are only eight couple households in total, these seven summary variables are capable of describing the full pattern of household budget variation with household size for households of this type. This is represented in the last row of Table 14.21, which shows the regression coefficients obtained by estimating a multiple regression model which includes the summary (or flag) variables as determinants of the total budget (the regression intercept is shown in the 'total budget' column).³⁰

The regression coefficients in the last line of Table 14.21 show the increase in the budget associated with each individual characteristic, holding everything else constant. Thus, the presence of any children reduces the budget by 94 cents, a three-year-old girl adds \$84.67, whilst a 14-year-old boy adds \$126.57. If two children can share a room, the budget is reduced by \$27.46, and if the wife is looking for work, an additional \$7.20 is required.

For the household types shown in Table 14.21, assembling a budget standard using these regression coefficients will simply replicate the total budgets shown in the first column. Thus, the budget for a couple with a six-year-old girl and a 14-year-old boy, where the wife is not looking for work is given by $\$374.43 - \$0.94 + \$102.02 + \$126.57 = \$602.08$.

In Table 14.22, these same regression coefficients are used to assemble budget standards for a range of household types that have not been included in the study. (The household types denoted in bold are those that have actually been included in the BSU study). The budgets for the other households are imputed from the regression coefficients shown in Table 14.21.³¹

²⁸ This feature is important because many aspects of the budget standards for households with children have been drawn up differently from those for childless households - in recognition of the important lifestyle differences associated with parenthood.

²⁹ The normative housing standards implemented in this study comprises the following principles: no more than two people per bedroom, children under five of different sexes can share a bedroom, children 10 years or older of opposite sexes should not share a bedroom, children under 18 of the same sex can share a bedroom, household members 18 or older have their own room, except for couples (who share).

³⁰ Since the regression model fits the data perfectly, these regression coefficients can also be obtained by examining differences between appropriate household types. For example, the coefficient on the wife's job search flag variable is identical to that shown in Table 14.18.

³¹ For a few household types, it is necessary to assume that boys and girls of the same age have the same costs.

Table 14.22: Hypothetical Low Cost Budget Standards for Private Renter Couple Households (Working Age Families, with Husband Unemployed and Wife not in the Labour Force)

Household Characteristics (bold households = actual budgets)	Total Budget (\$SPG)	Any children in HH? l=yes	Number of Children				No. of bedrooms with 2 children	Wife unemployed l=yes
			Age 3	Age 6	Age 10	Age 14		
No Children	374.43	0	0	0	0	0	0	0
One Child								
Girl aged 3 (G3)	458.16	1	1	0	0	0	0	0
Girl aged 6 (G6)	475.51	1	0	1	0	0	0	0
Boy aged 10(B10)	473.43	1	0	0	1	0	0	0
Boy aged 14 (B14)	500.06	1	0	0	0	1	0	0
Two Children								
G3G6	532.72	1	1	1	0	0	1	0
G3B10	558.10	1	1	0	1	0	0	0
G6B10	575.45	1	0	1	1	0	0	0
G6B14	602.08	1	0	1	0	1	0	0
B10B14	572.54	1	0	0	1	1	1	0
Two 3 year olds	515.36	1	2	0	0	0	1	0
Two 14 year olds								
Same gender	599.17	1	0	0	0	2	1	0
Different gender	626.63	1	0	0	0	2	0	0
Three Children								
G3G6B10	632.66	1	1	1	1	0	1	0
G3B10B14	657.21	1	1	0	1	1	1	0
G6B10B14	674.56	1	0	1	1	1	1	0
G3 G6 B14	659.29	1	1	1	0	1	1	0
B10B10B14	672.48	1	0	0	2	1	1	0
B10B14B14	699.11	1	0	0	1	2	1	0
Four Children								
G3G6B10B14	731.77	1	1	1	1	1	2	0
G3 G3 G6 G6	691.95	1	2	2	0	0	2	0
B10B10B14B14	771.59	1	0	0	2	2	2	0
B10B10B14G14	799.05	1	0	0	2	2	1	0

Two examples may help to show how the method works in practice. The first concerns a couple household with one child, a 10-year-old boy. The estimated low cost budget standard for **this** household is equal (using the parameter estimates provided in the last row of Table 14.21) to: \$374.43 - \$0.94 + \$99.94 = \$473.43. The second example calculates the low cost budget standard for a couple with two children, girls aged three and six, as follows: \$374.43 + \$84.67 - \$0.94 + \$102.02 - \$27.46 = \$532.72.

These examples illustrate how the method can be used to derive budget standards for all the household types listed in Table 14.22 (as well as many others).

However, it is important to understand the limitation of the proposed methodology. One feature is the critical importance of such key assumptions as the housing occupancy standard. This can lead to quite substantial changes in the budget when the genders of the children are varied. One example of this is shown in the last two lines of Table 14.22, where the families are

identical apart from gender of the last child, yet their budget standards vary by over \$27 a week (because an extra bedroom is now needed).³²

One obvious weakness of the estimates shown in Tables 14.21 and 14.22 is that the cost of the 10-year-old boy is less than that of the six-year-old girl. This somewhat implausible result is due to the fact that the 10-year-old only occurs in one household type—the family with four children (BSU household type H11).

The cost of the 10-year-old is thus derived by comparing the costs of a number of different household types and the estimate is intimately bound up with the patterns of costs associated with the sharing of bedrooms by children. It can in fact be shown that the cost result implicitly assumes that the savings in having three rather than five bedrooms are twice the savings obtained in having three rather than four bedrooms.

Whilst this is not an implausible assumption, it is not one that has been explicitly considered in the budget standards study. For these reasons, the cost estimates for households containing 10-year-old children should be interpreted with particular caution.

Tables 14.23 and 14.24 present the results of a similar analysis conducted for private renter couple households at the modest but adequate standard. Here, the costs of the 10-year-old child are again discordant—but in this case in the opposite direction.

Table 14.23: Budget Standards for Private Renter Couples at the Modest but Adequate Standard

	Tola1 Budget (\$PW)	Any children in HH?				Number of Children		No. of bedrooms with 2 children
		1=yes	Age 3	Age 6	Age 10	Age 14		
Couple	513.79	0	0	0	0	0		0
C+G6 B 14	817.42	1	0	1	0	1		0
C+G6	653.17	1	0	1	0	0		0
C+B14	669.25	1	0	0	0	1		0
C+G3	677.65	1	1	0	0	0		0
C+G3 G6 B14	977.51	1	1	1	0	1		1
C+G3 G6 B10 B14	1082.66	1	1	1	1	1		2
Regression Coefficients	513.79	-8.79	172.64	148.17	117.71	164.24		-12.55

Key: As for Table 14.7.

Note: (a) All families are of working age and both the husband and wife are employed full time.

With the aid of additional assumptions, budget standards for other household types can also be obtained. For example, it might be reasonable to assume that the total expenditures required for boys and girls of a given age are identical and that child costs increase linearly with age between the ages estimated in the study. Such assumptions, combined with the estimates presented in Tables 14.21 and 14.23 would allow the BSU budget standard to be extended to a far greater range of household types.³³

³² The sensitivity of the model estimates to the housing occupancy standard also applies to the BSU budget standards themselves, even though its impact is limited to only a few cases.

³³ The method could also be extended fairly readily to produce a greater variety of budget standard estimates for sole parent households. One way of doing this would be to include a 'sole parent household flag'

Table 14.24: Hypothetical Modest but Adequate Budget Standards for Private Renter Couple Households (Working Age Families, with Both Husband and Wife Employed Full-time)

Family Description (bold families = actual budgets)	Total Budget (\$ SPG)	Any children in HH?				Number of Children		No. of bedrooms with 2 children
		1=yes	Age 3	Age 6	Age 10			
			Age 14					
No Children	513.79	0	0	0	0	0	0	0
One Child								
Girl aged 3 (G3)	677.65	1	1	0	0	0	0	0
Girl aged 6 (G6)	653.17	1	0	1	0	0	0	0
Boy aged 10 (B10)	622.71	1	0	0	1	0	0	0
Boy aged 14 (H14)	669.25	1	0	0	0	1	0	0
Two Children								
G3G6	813.26	1	1	1	0	0	1	
G3B10	795.36	1	1	0	1	0	0	
G6B10	770.88	1	0	1	1	0	0	
G6B14	817.42	1	0	1	0	1	0	
B10 B14	774.40	1	0	0	1	1	1	
Two 3 year olds	837.74	1	2	0	0	0	1	
Two 14 year olds								
Same gender	820.94	1	0	0	0	2	1	
Different gender	833.49	1	0	0	0	2	0	
Three Children								
G3G6B10	930.97		1	1	1	0	1	
G3B10B14	947.05	1	0	1	1	1	1	
G6B10B14	922.57	0	1	1	1	1	1	
G3G6B14	977.51	1	1	0	1	1	1	
B10B10B14	892.11	0	0	2	1	1	1	
B10B14B14	938.65	0	0	1	2	1	1	
Four Children								
G3G6B10B14	1082.66	1	1	1	1	1	2	
G3G3G6G6	1121.52	1	2	2	0	0	2	
B10B10B14 B14	1043.80	1	0	0	2	2	2	
B10B10B14G14	1056.35	1	0	0	2	2	1	

Finally, it should be noted that none of the households listed in these Tables live in homes with more than three bedrooms. Hence, combinations of children which result in larger dwellings under the housing occupancy standard require very strong assumptions about the generalisability of the results.

Nonetheless, providing that an appropriate degree of caution is exercised, a methodology like the framework outlined above can be used to extend the budget standards to other household types that are similar, but not identical, to those included in the present study.

variable into the regression models for couple households and to use the revised model estimates to predict a range of hypothetical sole parent household budgets.

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CHAPTER 15: SPECIAL TOPICS

15.1 Customisation of the Budget Standards

Although a total of 46 separate budget standards have been formulated, costed and validated against behavioural data and focus group feedback, in reality there is a far greater range of household types actually in existence at any one time. The value of the effort that has gone into developing the 46 budget standards described in earlier chapters will clearly be greatly increased if it is possible to extend the derived budgets to other household types.

This process of extrapolating from a derived budget standard to produce a standard for a household that differs in some way from the circumstances for which the original budget standard was developed is referred to as the *customisation* of a budget standard.

The process of customisation can be formally described in the following terms. Consider a budget standard (B) that has been developed for a specific household type (H), so that the derived budget standard can be expressed as $B(H)$. The customisation process then involves seeking how to modify $B(H)$ so that it approximates either the same standard for a different household, $B(H^*)$, or a different standard for the same household, $B^*(H)$, or even a different standard for a different household, $B^*(H^*)$.

Several variations from the list of standard BSU household types are considered in this chapter, along with one variation in the standard itself.

Ideally, if the range of households for which a budget standard is required is expanded, then the whole exercise of developing and costing a budget standard should begin again for the new household types. However, even accepting that such an extension would benefit considerably from the original research conducted by the BSU, it would still be extremely time-consuming and costly.

Customisation of the existing budgets would allow these costs to be minimised while at the same time increasing the usefulness of budget standards for policy and other purposes. However, it needs to be acknowledged that a certain degree of imprecision will inevitably accompany any attempt to customise a budget standard. The cost resulting from that imprecision must be weighed against the benefits associated with increasing the scope and coverage of the standards.

As has already been explained in several places in this Report, the budget standards project was initially set up with the aim of maximising the scope for customisation of the derived budget standards in several dimensions. A crucial component of this aspect of the research has been the development of a set of statistical spreadsheets in computer software format which contain all of the information used to develop the BSU budget standards.

Development of these spreadsheets was motivated in part by the need for transparency in the research methods and to promote flexibility in the ability to vary these, but also by the need to make it possible for users to modify the budget standards for specific customisation purposes.¹

* This chapter was written by Peter Saunders.

¹ There are several examples of elements of these spreadsheets contained throughout the Report, most specifically in Appendix 7.A and in Appendix 12.A.

However, while these spreadsheets make it easier for customisation modifications to be put into practice, the more significant issue is precisely what form (or forms) the customisation of the budgets should take. To a certain extent, this has been shaped by the scope of the budget standards project as determined by the requirements of the contract (see Appendix 2.A), although aspects of the following discussion of the issues has a broader relevance than this.

For the moment, however, discussion is restricted to the following specific forms of customisation:

- customisation of the budget standards to households that *differ in size and composition* from those applying to the 46 BSU household types described in Table 2.1;
- customisation to reflect differences in the *geographic location* of households;
- customisation to reflect the *special needs* of certain households;
- customisation to reflect *changes over time* in prices, incomes, living standards and community norms; and finally
- customisation which considers how to vary the *standard of living* from the low cost and modest but adequate standards themselves.

In attempting to address these different forms of customisation, several different strategies have already been explored. Mention has been made of the efforts made to design elements of the research program so that the first two issues in the above list could be given explicit consideration.

The analysis reported in Section 14.9 of Chapter 14 has shown how the budget standards that have been developed can be used as the basis for estimating budget standards for other household types, given assumptions about how costs vary with the characteristics of the household and its members.

The method has been applied for illustrative purposes to show its potential in one specific instance, although there is clearly scope for further extension of the derived budgets along similar lines. The limitations of the method and the qualifications applying to the resulting estimates do, however, need to be kept firmly in mind when interpreting the results from any such extension.

In relation to the issue of geographic or locational customisation, the key (though not the only) issue is the variation of housing costs. As explained in Chapter 3 and elsewhere in the Report, the decision to locate the BSU households in a specific locality was necessary, but at the same time also limiting: necessary in order that housing and housing-related costs could be derived from actual data, but limiting in the sense that the approach compromised the overall representativeness of the resulting housing budgets, as well as other component budgets that are linked to housing location (e.g. transport and energy).

In general, the intention was to develop the BSU housing budget in a way that could assist in the process of customisation through applying the same basic methodology as that employed for the Hurstville LGA to other areas. Some very useful insights into the impact of location on household budgets and standards of living has also been provided by the focus group

discussions held outside of Sydney, specifically those held in the non-capital Victorian city and in a small rural Victorian town (see Chapter 13).

In relation to the adjustment of budget standards to reflect special needs, the selection of the Second Wave of Victorian focus groups was specifically designed to test the applicability of the derived standards to special need circumstances. The main conclusions to emerge from the discussions that took place at these focus group meetings has already been summarised in Chapter 13, although some of these are highlighted again in what follows.

A very important aspect of the customisation question relates to the adjustment of the budget standards over time. This issue has not yet been considered explicitly, although it clearly has substantial significance for the on-going value and usefulness of the derived budget standards. Some suggestions for what this form of customisation might take are discussed in Section 15.3.

Section 15.4 gives consideration to whether or not it is feasible to develop a new budget standard that would have relevance to households whose standard of living is above the modest but adequate level. Some of the conceptual and practical issues confronting such a development are explored and some of its potential limitations are expounded.

15.2 Customisation Proposals

Constructing New Household Types

As noted during the discussion of the choice of unit of analysis in Chapter 2, the selection of the individual as the unit when developing the BSU budget standards would in principle have made the task of customising the budget standards relatively straightforward. Individual budgets can be aggregated together in an infinite variety of ways to construct household budgets and the task of customisation would be resolved.

However, as was noted there, developing a budget standard on an individual basis is inherently difficult where there is joint consumption within the household of some items (as there surely is—two people can watch the same TV at the same time) so that in practice one is forced to use the household as the unit of analysis in constructing at least some component budgets.

This approach has been used by the BSU, with the household as the basic unit of analysis, but with some budgets (e.g. food, clothing and footwear and most areas of health, leisure and personal care) where it is reasonable to disregard joint consumption, being developed for individuals and then aggregated to the household level. Adoption of this 'mixed' approach makes it more difficult to customise the BSU budgets directly.

Thus for example, it is possible to manipulate the budget standards to estimate the costs associated with adding a six-year-old girl to a couple (as demonstrated in Chapter 14). The question that now arises, however, is whether or not this estimate can serve as the basis for constructing a new household type containing a six-year-old girl by adding her derived incremental cost to an existing household budget standard? Or to take another example, is it possible to estimate what the budget for an eight-year-old child might be from those developed for six-year-olds and 10-year-olds?

The strict answer to both questions is 'no', mainly because of the complexities that arise as a result of joint consumption, of which housing is the best (though not the only) example.² Having said this, however, there is scope to manipulate the existing budgets in order to derive initial estimates of budget standards for new household types, as long as this process does not take one too far away from the types of households for which the standards were originally developed.

In adopting such an approach, the limitations imposed by the characteristics assigned to the BSU households must be recognised. This provides some leeway for changing the ages of children in couple and sole parent households, but the results of such an exercise must always be treated with caution. The analysis reported in Section 14.9 of Chapter 14 illustrates how far it may be possible to go down this path without stretching the budget standard estimates further than is warranted.

This suggests that customisation can only go as far as producing estimated budgets for households containing adults around the ages of 30 to 40 with children (of the same gender as specified in the BSU household types) between the ages of three and 14. It would not be advisable to apply the methods developed in Section 14.9 to estimate a budget standard for households whose members fall outside of these age ranges.

Developing budget standards for adults in their 20s or 50s, or for very young children or young adults (aged between 15 and 20) would require a separate budget standard to be developed.³

Geographic Customisation

There are several points at which location matters for the development of a budget standard, even for that of a given household type. It has already been noted that although the decision to locate the BSU households in a specific location was unavoidable, it has the effect of weakening the representativeness of the resulting standards. Can this effect be removed through customisation?

To some extent the answer to this is 'yes'. From the outset, the BSU housing budgets were developed with the need for customisation in mind. The aim was to develop and cost a housing budget in one specific location using a methodology that could be reasonably readily applied elsewhere.

Thus, for example, the BSU housing budgets for purchaser households described in Chapter 3 can be transformed by varying both the size of the outstanding mortgage and the rate of interest applying to it. This means that if a different location is introduced, all that is required to customise the purchaser housing budgets is to obtain estimates of the relevant house prices at the assumed purchase dates in that area and substitute these for those currently applying to purchasers living in the Hurstville LGA.

² Another factor adding to this complexity arises where incremental costs do not vary linearly with age. This condition was implicitly assumed in the analysis reported in Section 14.9, although it was noted that it will not always be appropriate (as in relation to the required number of bedrooms and thus housing costs, for example).

³ It is also possible to develop a budget standard that applies to the costs associated with pregnancy and the anticipation of child birth. This has been done, for example, as part of the Norwegian budget standards (Statens Institut for Forbruksforskning, 1995).

Similarly, in the case of private renter households, the methods developed to estimate rents in the Hurstville LGA (tying them to rent levels at fixed points in the overall distribution of entry rents and then adjusting to reflect sitting rents) were again chosen with a view to being able to duplicate them in other areas. All that is required to achieve this is information on the distribution of private rents in the new area, selection of those points in that distribution to replace the rents assigned to Hurstville LGA renter households and an estimate of the adjustment required to convert from entry or access to sitting rents.

Some additional adjustments would also be required to ensure that the internal consistency of the housing budgets is maintained. Thus, for example, the local council rates, water rates and garbage collection and any other locally provided service charges would need to conform to those actually applying in the new area. So too would any changes to the price of home and contents insurance, and this information is readily available from the major insurance companies who offer the kinds of policies that are included in the BSU housing budget.

Although housing is the main component budget where location matters for a budget standard, it is not the only budget component where adjustments would be required in order to customise a budget standard for geographical variation. A related area of the budget is transport which, as already illustrated in relation to the Hurstville LGA, can create difficulties for the practicality of meeting the assumed transport needs of the household. Certainly, care would need to be taken to ensure that the transport facilities that are an implicit part of any budget standard are actually available in the new area.

However, there are also more fundamental issues at stake. Thus, it has been noted that the BSU budgets assume that households have ready access to a large shopping centre which contains the retail stores at which most of the budget items have been priced. If this is not the case, then either the budgets must be repriced or adjustments have to be made to the transport budget (and possibly also to the items included in some of the other budgets, most particularly in food, clothing and footwear and household goods and services).

Furthermore, as was made clear by participants in the Victorian focus groups who lived outside of Melbourne (particularly those who were living in a small rural town) different places of residence can produce not only different lifestyles and prices, but also differences in attitudes and behaviour which can impact in significant ways on a budget standard (in relation to attitudes to hand-me-down clothes for school children, for example, and even to the kinds of clothes that are worn).

A further general issue that arises in the context of locational customisation relates to the relevance of the prices at which a budget standard is costed. As noted earlier, the BSU budget standards have been developed from a range of price information that differs in its coverage and hence in its representativeness. Most of the food budget has been priced at State-wide NSW retail prices of the 'leading' and 'generic' brands, supplemented by local Sydney supermarket prices where necessary, as explained in Chapter 5.

In principle, these prices could be replaced by those applying in other States and Territories or in other parts of NSW, but this would involve a very heavy workload. This raises the whole question of regional variation in retail prices, an issue that has not been thoroughly addressed in Australia. Consideration of this is left to the updating question discussed in Section 15.3 below.

One dimension of the pricing issue that is of more immediate importance concerns the differential prices facing those living in urban and rural areas. There was a good deal of evidence provided by the focus group discussions held outside of a capital city (see Chapter 13) which suggests that some account might have to be made for different prices, particularly in rural and remote areas, when developing a budget standard relevant to these locations.

However, this is an issue where further research is warranted before any concrete proposals can be developed and one which raises important policy questions concerning whether or not regional price differentials provide a rationale for regional variations in income support payments (see King, 1995).

Special Needs Customisation

To what extent, if at all, can a budget standard be modified to reflect the circumstances of households containing individuals with special needs? Since the starting point for development of a budget standard is the need of the household and its members, it would seem that the only way to take account of 'special needs' would be through the development of a 'special budget standard' designed specifically for the purpose.

The main practical problem with this view relates to the narrowness of the definition of 'special need'. Although budget standards are derived by making very specific assumptions about the needs and behaviour of households and the values and aspirations of the society in which they live, it is also the intention that the standards are broadly *representative* of all households (of a given type) in that society at that time.

There is an important trade-off here between specificity and representativeness: the more specifically that the assumptions are designed to apply to a particular articulation of need, the less representative the resulting budget standard becomes.

This implies that it would-be necessary to develop a separate standard for each different special need group, a task that would be not only enormous, but also highly questionable: the more closely the standard reflected the special circumstances of the household, the more it would become merely a description of their budget rather than a normative benchmark for assessing its adequacy in meeting their needs.

In summary, it would appear useful as a first step to explore how much can be gained by incremental modification of a budget standard to reflect a range of special needs before going to the effort and expense of developing separate standards for a potentially very large range of different needs. The results of such modifications could then be shown to those experiencing the needs to obtain their response and opinions on the accuracy and usefulness of the estimates.

An attempt to gain some insight into the potential for this approach to the special needs issues has been made through the conduct of the 'special need' focus groups described in Chapter 13. A diverse range of 'special needs' was considered, including the presence of a disability, regular access to children living with a former spouse, large families and families living in a rural location.

The approach adopted when conducting these focus group discussions involved showing participants the (preliminary) budgets that had been developed for the standard BSU

households and asking them to indicate how relevant these budgets were to their own circumstances and where they most urgently needed to be modified.

The main issues that emerged from the ensuing discussions have already been highlighted and will not be repeated here. The focus group discussions revealed a broadly consistent picture which indicated quite clearly that although *some* modification to the budgets was warranted to reflect special needs and circumstances, there was little agreement on the *extent or form* that such modification should take. There was, in other words, general agreement that the budget standards need to be modified to reflect the costs associated with specific needs, but no agreement on precisely how this should be done.

Two points that follow from these comments are worth drawing attention to. The first is that although many special needs focus group participants identified areas where the budgets they were shown did not fit their own circumstances, there was, overall, relatively little difference between the extent to which this occurred in the special needs focus groups as compared with the other BSU focus groups.

The two exceptions to this were the disability group (who found little in the preliminary budgets that they were shown that was relevant to their situation) and the non-custodial (or separated) fathers group (who had considerable difficulty trying to relate the budgets they were shown to their own situations). In both cases, this mainly reflects the difficulty of drawing conclusions from a single round of focus group discussions that are trying to respond to a very complex set of questions.

Indeed, given the diversity of need experienced among these sections of the population, serious doubts must be raised about whether it can ever be possible to develop a budget standard that can be regarded as *generally* representative.

In conclusion, the special needs focus group discussions reported in Chapter 13 suggest that while it is important in principle that special needs should be taken into account in developing a budget standard, no clear consensus emerged on what form such modification should take. This is hardly surprising in light of the diversity of such needs and the number and size of the focus groups brought together to explore this aspect of the customisation issue.

The best that can be claimed is that what emerged from these particular focus group discussions provides a useful starting point from which the issue of special needs customisation can be explored more systematically. At this stage, however, there is no basis from which to draw any firm conclusions, particularly regarding how benefit conditions or payments for those with special needs should be structured.

Until this has been done and the budget standards exposed to a wider range of scrutiny, the BSU budget standards can probably serve as general benchmarks for all groups, although they will eventually need to be revised if they are to be useful for informing adequacy decisions that relate to those with special needs. Conducting more focus group discussions among those with special needs to assess whether it is possible to reach agreement on some of the detailed aspects of this issue would appear to be worthwhile.

Although there is a lot of material contained in Chapter 13 that is useful in its own right in providing an indication of the initial reaction to the BSU budget standards, the fact that the

groups were so small and non-representative cautions very strongly against placing too much emphasis on what these discussions imply for the role of a budget standard in the formulation of policy.

It would be extremely unwise to modify the existing budgets on the strength of these group discussions alone, although they do provide an initial source of feedback from which further work can build. It is not possible to build a budget standard from a single focus group discussion, or even to modify an existing one.

Recent New Zealand research by Waldegrave, Stuart and Stephens (1996) illustrates the value of using the feedback provided by focus groups as the basis for incrementally modifying adequacy standards over time and pursuing a similar strategy would be of value in Australia.

15.3 Adjusting Budget Standards Over Time

The BSU budget standards were developed and costed in February 1997. Although they are useful as a benchmark for assessing adequacy and living standards issues at that time, in order for them to achieve their maximum potential value it is desirable that the standards be adjustable over time so that trends in adequacy can be monitored against income movements and other developments.

There are three alternative ways in which this can be done. *The first approach* would involve repeating the whole budget standards exercise on a regular basis. This would require a very considerable effort given the enormous range of separate items that have to be identified and costed in the process of developing a budget standard.

Deciding which new items to include (and which old ones to omit) would be a massive task which would require far more data than are currently available and involve a constant reconsideration of the normative judgements on which the standards are based. On the pricing side, even accepting that the BSU budgets have, wherever possible, been priced using prices that are reasonably readily available, the magnitude of the task involved in repricing them should not be underestimated.

Given the effort involved in developing a set of budget standards, it would not appear to be a particularly effective strategy to have to repeat the whole exercise every couple of years or so.

A second approach to updating a budget standard would accept that the items included in a given standard should remain fixed (at least in the short-term and in the absence of any compelling reason for changing them) but update the budgets by repricing them on a regular basis.

This would still be a fairly large task, although a much more manageable one than the first method. It could be done reasonably easily every two years or so—as it currently is in countries like Canada, Denmark and Norway that have developed their own budget standards.

It would, of course, also be necessary to adjust the budget standards to reflect some other changes in addition to variations in the prices at which they were originally costed. These include incorporating the effects of any changes to government programs which may affect the content of a budget standard or how it is costed, such as changes to program eligibility, or to

the value of those concessions (e.g. child care, transport, public housing and health) which affect the prices faced by targeted groups of consumers.

The main limitation of the second approach is that it is only a practical alternative if undertaken every one or two years. This may be sufficient to enable trends in the living standards of different households to be traced over time, but it would mean that the adjustment of income support payments in line with movements in a costed budget standard could only be done at these intervals. This would represent a radical departure from the existing Australian practice of indexing benefits every six months.

If the time and effort involved in repricing a budget standard regularly were regarded as too onerous, it is possible to short-circuit the second approach to updating by adopting a *third approach*, which involves adjusting the budget standards in line with information that is already available on price movements in the economy.

The most obvious indicator of movements in Australian prices is the Consumer Price Index (CPI) which is published quarterly by ABS and currently 'measures quarterly changes in the price of a 'basket' of goods and services which account for a high proportion of expenditure by...metropolitan wage and salary earner households' (ABS, 1997a, p. 20).

The CPI is currently used as the basis for indexing social security payments and is also used by the Australian Institute of Family Studies (AIFS) to update its estimates of the 'basket-of-goods approach' to the costs of children (AIFS, 1997). There has, however, been concerns raised within AIFS that this may not be the appropriate index for adjusting estimates of the costs of children (particularly those derived from analysing actual household expenditure patterns) and AIFS announced in 1995 that it was to convene a Workshop to investigate the whole issue (AIFS, 1995), an initiative which was postponed when the Budget Standards Project was announced (AIFS, 1997).

Interest in the whole issue of price comparisons has also been promoted by the fact that the current CPI series has been the subject of a recent Review which has resulted in several changes being made to the way that the CPI is estimated, to come into effect from the September Quarter 1998 release of the CPI (ABS, 1997b). Because the introduction of these revisions to the CPI are imminent, the following discussion is based on the proposed new series.

The are several amendments to the existing CPI series that will be introduced later this year. First, in recognition of the CPI as a measure of price inflation for the entire household sector, the index will adopt an acquisitions approach in which the 'basket of goods' consists of all consumer goods and services actually acquired by households during the base period. The coverage of the index will also be extended from only those households who derive at least three-quarters of their income from wages and salaries to include all private households (living in one of the eight capital cities).

In terms of changes to the scope of the index, the most significant change will be in the area of housing, where mortgage interest and credit charges will be removed from the index, which will henceforth include net expenditure on new dwellings (excluding land). This change is consistent with the adoption of an acquisitions approach and reflects an improved method for distinguishing

between the consumption and investment components of housing expenditures for inclusion in a measure of price inflation for the household sector (ABS, 1997b, pp. 13-14).

A new major commodity group, financial services, will be incorporated into the index, as will more specific commodity categories covering home computers and software, tertiary education fees and domestic services.

Consideration was given by the Review to whether or not a series of new spatial price indices should be developed, but in light of the 'practical and conceptual difficulties of such comparisons, especially in regard to the weighting patterns to be used', it was decided that 'such comparisons should be accorded a relatively low priority by the ABS' (ABS, 1997b, p. 15).⁴

Having accepted that there is a useful role to be played by the (revised) CPI in updating the BSU budget standards in the short-term, there are still questions to be resolved relating to precisely how this should be done. First, there is the question of whether the *overall CPI* should be used to update the total budgets, or whether movements in the *different CPI components* should be used to adjust each of the component budgets separately.

In the light of the effort already put into developing the separate component budgets, combined with accessibility of the CPI component series, it would be desirable for the separate group components of the CPI to be used to update each of the relevant components of the budget standards. This approach is not only more consistent with the underlying budget standards methodology, its use will produce quantitatively different results whenever relative prices are changing.

However, application of this updating method would need to take account of the difference in definition between the commodity groupings used for CPI purposes and those used in developing the BSU budget standards. The main differences between these have already been documented in Appendix 1.C which describes the concordance between the budget standards and household expenditure survey commodity classification frameworks.

After the September Quarter 1998, the CPI will consist of nine separate broad groups of goods and services, the previous eight (food, clothing, housing, household equipment and operation, transportation, tobacco and alcohol, health and personal care, and recreation and education) plus a new category, 'financial services' (which will include specific fees and charges for financial services and the cost of financial intermediation services).⁵

The nine new CPI areas correspond broadly to the nine major budget components around which the BSU budget standards have been developed, although the two groups do not coincide exactly (as explained in detail in Appendix 1.C). There would therefore be a need to adjust the published CPI figures so that the groupings were consistent with the budget standard component categories, a task which would have to be left to ABS to undertake.

⁴ This decision not to proceed with a spatial dimension to the CPI at this stage was taken in spite of the recent claim that '... while the evidence is sparse, it was seen to indicate the possibility of significant variations beyond the well known and well documented variations in housing costs' (King, 1995, p. 73).

⁵ The revised CPI series will continue to exclude gambling, an item that has also been excluded from the BSU budget standards.

The main area where problems would arise with this approach in practice would be in relation to the treatment of housing costs. Here, the switch to an improved measure of housing consumption under the revised CPI series and the exclusion of mortgage interest will make the new coverage of housing costs in the CPI for purchaser households different from the budget standards for purchasers which include the interest component of the mortgage as the major component.

However, as already argued forcefully in Chapter 3, there are serious limitations to the representativeness of the BSU housing budgets for purchasers, as a consequence of the inability to derive a 'representative' estimate for this component of the budget. As a result of this, it was proposed that attention should focus on the housing (and hence total) budget standards for households who are renting (particularly private renters) rather than for those who are assumed to be purchasing their home. If this position is adhered to, the problems arising from the new treatment of mortgage interest in the new CPI series will largely disappear.

A further set of issues surrounds the whole question of which particular CPI series should be used to update the budget standards. As noted earlier, the BSU budgets have mainly been priced at Sydney prices, although some of these prices apply throughout New South Wales, while others apply nationally.⁶

In the light of this, should the budgets be updated in line with movements in the (component) CPI series for Sydney, should the series for the relevant capital city in each state be used, or should the budgets simply be updated by movements in the weighted average figure for the eight capital cities?⁷

Given that the BSU budgets are Sydney-specific in relation to their treatment of housing costs and to the pricing of State Government charges and concessions, they should ideally be updated by the relevant Sydney capital city CPI series.

Ideally, what is required is a two-stage process in which the BSU budgets are first customised to fit the circumstances (and prices) of capital cities other than Sydney, and then updated using the relevant capital city CPI series. This approach would, of course, imply that the budget standards for each capital city would differ and they might well drift further apart over time. This might in turn create pressures for a regional differentiation of income support payments (and other income benchmarks such as the level of the 'living wage').

The only way to avoid this would be to update the budget standards by a single, national index, recognising that although this will lead to some imperfection, it may still be preferable to the alternatives. If a single index were chosen for these reasons, the one best suited to the task would be the weighted average of the eight capital cities, this being the series that is currently used to index social security and other benefits.

⁶ This explains why retailers with national coverage of stores were used to price the budgets whenever possible.

⁷ To give an indication of what practical difference this can make, the change in the capital city CPIs between the June Quarter 1993 and the June Quarter 1997 were: Sydney—10.9 per cent; Melbourne—8.9 per cent; Brisbane—10.4 per cent; Adelaide—8.5 per cent; Perth—10.6 per cent; Hobart—10.9 per cent; Darwin—10.5 per cent; and Canberra—9.2 per cent. The weighted average of eight capital cities index rose by 10.0 per cent over this period (ABS, 1997a, Table 1).

The above discussion has focused entirely on the alternative methods available for adjusting the budget standards over the *short-term* to reflect movements in *prices*. While this approach is sufficient in the short-term, something else would be required over the medium-term to ensure that any changes in the community norms and standards on which the budget standards are based are incorporated.

As was noted by the Watts Committee in the United States almost two decades ago, as the average level of consumption in the community rises over time, so should the normative standards used to assess the adequacy of incomes and consumption levels (Watts, 1980, pp. 60-61). It follows from this that adjusting a budget standard to reflect price movements alone can only be viable over relatively short periods of time for which it may be reasonable to assume no change in the underlying consumption norms.

In the medium-term, such an assumption will become increasingly untenable, leading to the need for the entire budget standards to be reconsidered and re-estimated. This will involve incorporating not only changes in prices, but also changes in the items that are included in the budget standards and in the attributes (e.g. quality, lifetimes and price ranges) assigned to them.

The need for such adjustment will be particularly important in those areas of the budgets where technological change is rapidly altering the cost and/or use of certain household items, making them more (or less) common among household budgets.

A home computer is an example of an item that may well not have satisfied the 50 per cent ownership rule 10 or possibly even five years ago, but does now because of changes in educational expectations, combined with the rapid fall in their (relative) price as a result of technical change. As one of the focus group participant parents noted, being able to afford a home computer for their child is now seen as necessary if school children are not to be disadvantaged in their studies.

Over the medium- to longer-term, it will therefore be necessary to revise the budget standards in the light of the introduction of new items and changes in *quantities*, as well as to reflect changes in the *prices* of existing items. This, along with changes that reflect any revisions to existing community norms (e.g. in relation to recommended nutritional energy requirements, motor vehicle safety standards, or clothing types) will require the entire budget standards exercise to be repeated if the standards are not to drift gradually away from the normative basis on which they were originally developed.

The various updating methods described above should be seen as complementary rather than substitutes for each other. An overall adjustment strategy using all three of them might operate as follows:

- adjust the budget standards over the short-term (for periods of up to three years, and certainly no more than five years) by movements in the CPI eight capital city average group indices that correspond to each component budget area (adjusted where possible by the ABS to minimise the lack of concordance between the ABS CPI categories and the budget standard component definitions);
- at least every five years (and more frequently than that if possible) the budget standards would need to be repriced using the same pricing methods as those on which they were originally developed. This could be done separately in each

capital city, in which case subsequent price updating could use the separate indices for each capital city (although this is a matter requiring further consideration);

- » finally, over the medium-term (certainly no less frequently than every seven to 10 years) a new set of budget standards would have to be developed to ensure that they remain consistent with community norms, values and patterns of behaviour. Such revision would be essential if the budget standards are to retain their legitimacy and support in the community.

This strategy should ensure that the budget standards retain their relevance, but at a cost that is affordable given the complexities surrounding the task.

The main practical limitation of this proposed updating strategy is that the budget standards would in effect decline relative to the average level of real standards of living in the community in the periods when they were updated solely in line with price movements. This period of real stability but relative decline would be followed by a sharp upward ratchet once the quantities and consumption norms were adjusted.

An alternative approach (again, one that was recommended by the Watts Committee) would be to adjust the budget standards over the short- to medium-term in line with movements in the median expenditure of a reference household (e.g. the non-aged couple with two children). This would ensure that the standards would rise continuously with real consumption levels in the community, thus maintaining their (approximate) relative rather than real value in the short-run. There would still need to be a recalculation of the budget standards every 10 years or so, but this would not lead to a sudden ratchet effect of the kind described above.

The main obstacle to the adoption of this approach in Australia is that data on median household expenditure levels are not available on an annual basis, only every five years or so when the *Household Expenditure Survey* is conducted. It might be possible, in the interim, to adjust using a measure of average household consumption derived from the National Accounts although this would give rise to controversy surrounding the appropriateness of the measure, including such issues as whether to use the original, seasonally adjusted or trend series and how to handle revision to the estimates themselves.

15.4 Development of an 'Affluent' Budget Standard?

As part of its research brief, the BSU was asked to consider the issues involved in development of a budget standard that would apply at a level of living above the modest but adequate standard. Some of the issues confronting such a development are now considered.

In principle, the budget standards methodology can be applied to cost what is needed to attain *any* standard of living. Although most of the countries that have developed a budget standard have tended to apply them to either the modest but adequate or low cost levels as described in this Report, this has mainly been because these standards have been of most practical or policy interest. In fact, the majority of countries have developed a modest but adequate standard as the basis for deriving the low cost standard as a deviation from it—as has been the case here.

In the light of this, would it not be equally feasible to specify and develop an 'affluent' or 'high cost' standard that was an upward deviation from the modest but adequate standard, in a similar manner to the downward adjustment that underlies development of the low cost standard? In fact, the Watts Committee in the United States proposed a 'social abundance' standard which, as noted earlier, was designed to lie 'in the boundary zone that marks progress significantly beyond the ordinary into expenditure levels that afford choices in the luxury categories of consumption' (Watts, 1980, p. ix).

The social abundance standard was set by the Committee at the equivalent of one-and-a-half times their equivalent to a modest but adequate standard and was estimated to include around 18 per cent of the US population in the early 1970s (Watts, 1980, p.61). The Committee also recognised that, over time as real consumption levels grow, the social abundance standard would gradually become the prevailing family (or modest but adequate) standard, which suggests that the proportion of US households attaining this standard now should be well over 18 per cent—perhaps as many as one-quarter.

Before considering what might be involved in developing an affluent budget standard, it is worth pausing to reflect on the uses to which such a standard might be put. There are many of these, including helping to establish the income levels at which different forms of government assistance might be withdrawn from (as opposed to provided to) households, as a benchmark for deciding at what income levels the tax scales might be increased, and to provide information that can assist with the design of child support arrangements which affect higher income households.

In summary, there are several reasons why an affluent budget standard would be a valuable addition to the current range of income adequacy indicators. The question remains, however, how could such a standard be developed in practice?

There are two main issues here. The first is mainly conceptual and surrounds the whole question of the precise meaning to be given to an affluent standard of living. Economists define luxury goods as goods on which expenditure increases more than proportionately with income. But ownership of luxury goods does not necessarily imply affluence. Neither are affluent households comprised of individuals whose incomes would be sufficient to place them, as individuals, among the affluent: a modest but adequate income can support an affluent standard of living if it is shared with someone else who also has a high (or even modest) income.

However, the main problem confronting any attempt to articulate what an affluent budget standard might represent arises from the greatly-expanded range of choices available to those who are affluent. This expansion in choice will, in the light of the varying consumer preferences of different people, result in markedly different consumption patterns among the affluent. Some will purchase expensive cars, others will indulge their desires for fashion clothing, while yet others will eat out all the time or take regular expensive holidays.

This suggests that it would be very difficult to identify a limited range of goods that are *representative* of the budgets of affluent households. Without this; it would be difficult to develop a particular articulation of an affluent standard of living in practice without including households whose purchase of a *single* item on the 'luxury list' may be their only escape from an otherwise modest but adequate (or even lower) standard of living.

Against this, it may be possible to identify a list of items that are widely perceived as characterising a life of luxury—owning a prestige car, private travel by business class, membership of exclusive clubs, the presence of an in-ground pool, sauna or air conditioner in the home, or sending children to an expensive private school—which only the truly affluent can afford, and then develop an affluence standard by pricing these items. However, the problem would still remain that not all affluent households own all of these items, so that a rule would need to be developed for deciding where to set the affluence cut-off.

An obvious candidate would be a variant of the 50/75 per cent rule that has been used to identify and distinguish between the modest but adequate and low cost standards. Should one adopt a 25 (or 10) per cent rule as the basis for setting the affluence standard? Again, the problem of choice and preference variation would complicate the task, so that, for example, the development of a budget standard including *all* of those items owned by 10 per cent or less of the population would result in an extremely high figure because affluent households do not in fact own all such items—they choose between them.

The same issue has been confronted in developing the modest but adequate budgets, as was noted in Chapter 2. However, its practical impact would be much greater in relation to a standard of affluence, precisely because of the greater scope to exercise choice at such a standard.

On balance, the problems that arise when developing a budget standard resulting from differences in choice and preference may be manageable at the modest but adequate standard, but are likely to become increasingly overwhelming in the development of an affluence standard.

An alternative approach to developing an affluence standard would proceed not by trying to identify the separate items that are consumed by households at that standard and then pricing them, but by adopting a broader approach, at least in the first instance. This might involve, for example, defining an affluence standard (as the Watts Committee did) as being equal to some essentially arbitrary multiple of the modest but adequate standard that has already been developed. Another possible method would be to define affluence as a situation where less than a fixed proportion of the total household budget is spent on all items that are included in the modest but adequate standard.

A useful first step in such development could involve exploring what these kinds of approaches would produce in practice using data from the ABS *Household Expenditure Survey*. Once a range of alternatives have been tried, the extent to which they overlap or produce very different groupings would shed further light on the potential usefulness of the entire approach.

These alternative approaches to the development of an affluence standard are both rudimentary and exploratory. One of the main lessons to emerge from the research reported here is the inherent difficulty of holding the standard of living constant across different commodity areas and different household types when developing a budget standard. Without being able to do this with some certainty, the whole budget standards methodology is brought into question.

Such difficulties would almost certainly be worse when trying to develop an affluence standard—probably considerably worse. In summary, there is considerable scope for improving the low cost and modest but adequate standards developed here, and this should take priority

at this stage over trying to develop an affluence standard that might in practice prove to be beyond what the budget standards methodology can deliver.

15.5 Main Lessons to Emerge From the Research

Jonathan Bradshaw was undoubtedly correct to describe the task of developing a budget standard as 'a ghastly chore' (Bradshaw, 1993, p. 236). Having undertaken the task, the fundamental truth in this proposition has become all too evident. In the process, much has been learnt about the strengths of the budget standards methodology—and of its limitations. These few final remarks summarise what seem to be the most important of these.

The single most important factor that has complicated the entire exercise has been the fact that nothing along these lines has been conducted before in Australia, at least not to the scale attempted here. This has meant that the research has mainly been guided by budget standards research conducted overseas, but was often at the same time constrained by the lack of the required data in this country.

Having said this, it should be acknowledged that overall the incremental modification of existing overseas budgets has proved to be a very useful (and cost-effective) strategy. In the process, several aspects of the Australian research has in fact been a good deal more sophisticated than that undertaken previously in other countries.

The most important strategic decision that affected the research was undoubtedly the decision to derive a budget standard for housing. This required the households for which a standard was being developed to be assigned to a specific location, a decision which had a number of important implications for other budget areas, specifically in relation to the development of the transport budget.

It is also fair to observe that the research team under-estimated the sheer magnitude of the task involved in developing a budget standard for each of 46 separate household types. Information was still being produced right up until the final stages of the research, and there are many areas where the researchers were not able to reach any clear consensus on the appropriate judgements on which to build the standards.

The fact that there are so few existing community standards in most areas of consumption in Australia has meant that reliance had to be made on overseas experience and judgement and that the number of decisions that were subject to legitimate debate and disagreement was larger than it might otherwise have been.

This also required greater reliance than was originally envisaged to be placed on the use of behavioural data as a means of developing the standards—a procedure which produced some strange results when the budget standards were manipulated to produce estimates of household costs (see Chapter 14).

Despite the very valuable advice and assistance provided by members of the BSU Steering Committee and the informative feedback resulting from the focus group discussions, the budget standards presented in this Report still need a good deal more exposure among the

community generally before they can be viewed with confidence as having the legitimacy required to provide a solid basis from which to exert an influence on policy.

This process of refining the standards will need to involve several different groups if it is to be most useful. Firstly, it will need to obtain the views of experts in each budget area as to where the component budgets may need to be revised. Second, the views of policy-makers in a range of different areas should be canvassed, specifically regarding the practical uses to which the budget standards can be put in the context of policy development.

Third, the reaction of other potential users of the budget standards will need to be obtained, including those of community and welfare agencies involved in providing advice and assistance to low income families and other disadvantaged groups. How the standards could be presented in a more useful format for these groups is an issue warranting considerable attention. Finally, the standards need to be exposed to more Australian households so that they can be refined in the light of their experience and values.

The BSU budget standards represent a state of the art attempt to apply the budget standards methodology to Australian circumstances given the available data. They represent a substantial contribution to research on household living standards and a solid foundation on which further study of the adequacy of household incomes and expenditures can build.

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