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A Budget-Based Definition of Poverty With an Application to Single-Parent Families

Trudi J. Renwick
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ABSTRACT

An approach to defining poverty through a "Basic Needs Budget" (BNB) is presented which takes account of families' differing needs for child care and transportation, and of regional differences in housing costs. Taxes and noncash benefits from governmental and private sources are also accounted for. The BNB poverty rate for single parents for 1989 is 47 percent, compared to 39 percent under the official method; almost a quarter of single parents holding full-time jobs are counted as poor under the BNB method. Radical reduction in both the welfare rolls and the poverty rate would require government assurance of child care and medical care to single parents.

I. Introduction

In the United States, the official method of computing a poverty-line income and of conducting the annual count of families who fall below it is widely understood to be deficient in a number of important

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respects.¹ This paper describes and implements a way of setting poverty lines that addresses many of the issues ignored by the official poverty-counting methodology. We employ a “Basic Needs Budget” (BNB) approach, specifying an adequacy standard for each of the major groups of goods and services that families consume, and adding an appropriate amount for direct taxes.² This method allows us to tailor the budget to elements in each family’s situation that affect its required spending in important ways—for example, whether the family will require nonparental child care and whether the family lives in an area with high or low housing costs.

When assigning a family to a poverty or nonpoverty status we take into account the noncash benefits that it received from the government (food stamps, Medicaid, public housing). We break new ground in accounting for noncash benefits from private sources (health insurance from an employer, child care services donated by a relative). In dealing with the effect of these benefits on the family, we consider not the cost to the donor, but the reductions in expenditures these benefits enable the family to make while still meeting the specified adequacy standards. Thus, non-cash benefits are taken to reduce the family’s cash flow requirements. These are compared with the family’s actual cash flow in determining whether it is to be considered poor. We also allow for income and social security taxes.³

The official methodology of designating who is to be considered poor is particularly ill-suited to dealing with single-parent families. It takes no account of such important family issues as whether the parent holds a job entailing extra expenditures for child care, transportation, and direct taxes. As the proportion of American children living with one parent grows year by year, it becomes increasingly urgent to develop a system that takes a realistic account of the adequacy of the resources available to them.

In this paper, we illustrate the BNB method by constructing poverty lines for single-parent families and use them to arrive at poverty rates for

1. Ruggles (1990) provides an extensive discussion of the problems with the official methodology. See also Friedman (1965), Haber (1966), Rein (1960), Smeeding (1975), Orshansky (1978), Coe (1978), Rodgers (1984), Watts (1986), Sawhill (1988), Levine and Ingram (1988).

2. This is the approach advocated in Ruggles’s (1990) extensive review of poverty measurement issues. Predecessors include the Bureau of Labor Statistics Family Budgets (U.S. Department of Labor 1966, 1967), and a series of budgets for mother-only Boulder County families constructed by Helburn and Morris (1989).

3. Others have looked at the impact of taxes and major public noncash benefits (generally limited to food stamps, housing assistance, Medicaid and Medicare) on the poverty rates, most notably Smeeding (1975). A recent comparative study (Smeeding and Torrey 1988) considers only participation in the food stamp program and tax obligations.

such families for 1989. The method can be extended to two-parent families and to other types of families; poverty estimates done in this way can be extended backward and forward in time as well. A last section discusses the issues in doing so.

For single parents without jobs, the Basic Needs Budget that we specify costs out to more than the official poverty line. When commonly received noncash benefits are accounted for, however, the cash-flow requirement for such families falls below the official poverty line. Since most of these families have a cash flow that is lower still, poverty counts for that group by the BNB method are close to the official ones.

For single parents with full-time year-round jobs, whose adequacy budget is swelled by child care needs and who receive less in the way of noncash benefits than mothers without jobs, the BNB methodology produces poverty counts for 1989 that are much higher than the official ones: a 23 percent poverty rate by the BNB method as compared with a 9 percent rate in the official counts. In all, using the BNB method we arrive at a 47 percent incidence of poverty in 1989 among single parents of either sex, as compared with the official figure of 39 percent.

II. Contrasting Methodologies

Official U.S. poverty lines (Orshansky 1965) were set up on the basis of a U.S. Department of Agriculture "economy" food plan for a family of four (working father, housewife mother, and two children), which estimated the cost of a nutritionally adequate diet. The poverty line was set by multiplying the cost of the food plan by three, on the grounds that low income families spent about a third of their income on food.

In classing a sampled family in the Current Population Survey (CPS) as above or below the designated poverty line, the Census Bureau considered only the family's before-tax cash income, disregarding the effect on living standards of such benefits as food stamps and Medicaid. Since 1969 the only change in the poverty line through time allowed by the official method has been an adjustment for price changes using the Consumer Price Index.

The official method achieves simplicity by avoiding the problem of setting up adequacy standards for any elements of the budget except for food, to which a seemingly "natural" nutritional standard can be applied.⁴ The official method's simplicity brings with it a series of defects,

4. The standard set for food, however, cannot be a cut-and-dried affair, as the discussion of the food budget below reveals.

however. Food is not the only item whose adequacy evokes serious concern; shelter, medical care, child care also qualify. Without enumerating a set of material standards for nonfood consumption, we have no assurance that sufficient resources are allowed for in the poverty-line budget to meet these additional concerns.

The official method not only ignores noncash benefits, it makes it difficult to adjust appropriately for them. Such benefits affect the family situation by reducing the cash outlays for certain groups of commodities that the family would otherwise be required to make if it is to maintain the specified standard of living. In the official method, the required family spending that such benefits would replace is not specified, except for food.

The official method ignores tax obligations⁵ and thus ignores the effect of income tax and social security tax changes on the size of the population to be designated in poverty. It requires most adjustments for families of differing types and sizes to depend on the families' differing food requirements. Under the official method, the multiplier—uniform for most sizes and types of families in all locations, regardless of labor force status—serves as a large rug under which important issues of adequacy and scale are hidden.

In a radical departure from the official U.S. method, the Leyden group (Goedhart et al. 1977, Hagenaars and de Vos 1988), reviving a line of thought from Rainwater (1974), suggest conducting a poll to determine how much the population considers necessary to keep a family in decency, and setting poverty lines according to the results. Since setting poverty lines and counting the poor are acts that have and are intended to have consequences for public policy, it is certainly not unreasonable that public opinion about such matters be taken into account. The polling methodology would allow the poverty line to change through time as ideas change about what constitutes a style of life for fellow citizens that the public can contemplate without disquiet.

The polling methodology shares important weaknesses with the official U.S. method, however. It also makes the proper accounting for noncash benefits difficult. More crucially, the differences in situation between single-parent and two-parent families and the differences among single-parent families are so large that different poverty lines are appropriate for them. Public opinion polling is unlikely to provide the best way of establishing such differences.⁶

5. The three-times-food poverty line was initially intended to represent an after-tax requirement. In practice, the Census Bureau classifies a family as poor or nonpoor on the basis of its reported before-tax income.

6. It would be possible to combine the public opinion method with the Basic Needs Budget

The Basic Needs Budget approach we advocate requires that adequacy standards be established separately for food, housing, health care, transportation, clothing, child care, and personal care/miscellaneous. Adequacy standards for each commodity group, which we derive almost entirely from U.S. government-set standards, are allowed to vary where appropriate depending on the labor force status of the parent, the ages of the children, the area and region of residence, and the availability to the family of noncash benefits from the government, an employer, or a relative. Family size adjustments are made separately for each commodity group.

The method we propose requires the analyst to make and justify decisions on seven adequacy standards, as opposed to one in the U.S. official method and none in the polling method. While the BNB method may appear to have more elements that seem arbitrary, it has the virtue of a greater degree of openness about what is being proposed than the two others. While not going as far as the Leyden school in allowing public opinion to set poverty lines, the BNB method facilitates understanding by social analysts, by politicians, and by the general public of the kind of life those who are designated as poor must face. It provides a vehicle for consideration of the effect of tax changes on the situation of low-income families. It invites consideration of changes in poverty lines when new commodities are proposed for addition to the list of necessities.

III. Constructing a Budget

In constructing the Basic Needs Budget, we have made use of previously defined adequacy standards wherever we considered them appropriate. Of the standards for the seven designated commodity groups, three derive in whole or in part from the BLS Family Budgets.⁷ We use the appropriate subindexes of the Consumer Price Index (CPI-W) to bring spending requirements up to the year 1989, where the standards established refer to other years. Once a total after-tax expenditure requirement is determined, a corresponding before-tax income can be determined, using appropriate tax schedules.

We present here a brief explanation of the seven standards, their appli-

method to get the strengths of both. Polling could be used to check whether the BNB for a particular family type was of the correct order of magnitude. For example, the most recent Gallup data indicate that the public would set the poverty line for a family of four nearly 24 percent higher than the official poverty line. (O'Hare et al. 1990)

7. The BLS family budgets, which were published as a standard of decency for low-income families, were discontinued in 1981.

cation to different sizes of family, and a review of the major decisions that had to be made in connection with each.

A. Food

As our food expenditure standard, we use the U.S. Department of Agriculture's low-cost food plan, as revised in 1983. In making adjustments for size of family, we follow USDA's recommendations, which assume some economies of scale. The food expenditure standard we prescribe allows \$50 per month more in 1989 for a mother and two preschool children than the USDA "thrifty" food plan, the successor of the economy food plan on which the official poverty line was based. We rejected the "thrifty" plan because it is intended only for temporary or emergency use, and a USDA survey found that only 10 percent of the families spending the amount allowed were obtaining a nutritionally adequate diet (Orshansky 1977).

For families recorded by the Census as receiving food stamps, free school lunches, or benefitting from other types of food aid, the value of that aid was subtracted from cash spending required to meet the food standard.

B. Housing

Two basic concerns govern setting adequacy standards in housing: the size of the unit and the level of rent⁸ to be allowed for a unit of the size chosen. Generally, in the United States, the children in a two-parent family are expected to sleep in a room separate from their parents, presumably to provide privacy for sexual relations between the parents. Does a single parent also need this privacy? Since it would be unrealistic to assume that the parent is celibate, we have concluded that decency does require that the parent sleep apart from the children. Our standard allows no more than two children to share a single bedroom. Accordingly we have allotted a parent with one or two children a two-bedroom apartment. We add a third bedroom if she has three or four children, and a fourth if she has five or more.⁹

8. According to the American Housing Survey (U.S. Bureau of the Census 1989), about 15 percent of single-parent families below the official poverty line own their own homes. Suburban homeowners in all income groups have housing costs about 3 percent higher than those of renters. In rural areas, owners' housing costs are 10 percent below those of renters.

9. See the standard set by the Community Council of Greater New York (1970, p. 35). The U.S. Department of Housing and Urban Development makes the same assumption in its regulations pertaining to apartment size for recipients of public housing assistance and in fact is more generous than we are, in that for older children, only siblings of the same sex are expected to share a bedroom.

Having established apartment size, we have to establish the level of rent allowed in the budget for units of these sizes. For two-bedroom units, we have chosen the rent charged for the apartment at the 25th percentile of the distribution of such rental units. At this cost, landlords can provide apartments that are not dilapidated.¹⁰ This produces monthly rental allowances for central city, suburban, and rural two-bedroom units of \$305, \$416, and \$250, respectively, for 1989.¹¹ In recognition of the significant regional variations in housing costs, the housing expenditure standard is adjusted according to whether the family resides in the Northeast, Midwest, South, or West.¹² Families receiving apartments at concessional rents through government programs have the value of the subsidy subtracted from the cash deemed needed to meet the housing standard.¹³

Should people who live in suburbs have a higher poverty line to allow for the higher cost of housing in their area? If a family has an income just high enough to be out of poverty in a central city but chooses to live in a costlier dwelling unit in the suburbs, one might take the attitude that the public need not be concerned about any shortfalls in other expenditure categories that result from such a choice. We have taken the contrary position—that families residing in the suburbs should have poverty lines high enough to take care of their extra housing expense. Since poverty comes in short spells for many families, we cannot expect families to change location when they experience what may seem to them short-run rises and falls in income.¹⁴

We allow \$11 per month per person for household operations to cover basic telephone service and household supplies, which is in line with the amounts allotted for these items in the lower level variant of the BLS Family Budget. This amounts to \$391 per year in 1989 for a mother and

10. For a more detailed discussion of the choice of housing standard, and an outline of other possible standards, see Renwick (1991).

11. These figures are based on advance data from the 1989 American Housing Survey.

12. This was based on relative average housing cost data by region from the 1987 American Housing Survey (U.S. Bureau of the Census 1989). The cost for larger apartments is estimated using the guidelines provided by the Department of Housing and Urban Development.

13. If the family getting the subsidy is required to live in an apartment whose cost, gross of the subsidy, is more than the BNB allows, the appropriate method of valuing the housing benefit is either the difference between the BNB housing allowance and what the family pays, or zero, whichever is larger. To have used this method, however, we would have needed data on the rent paid for the subsidized apartments, which was not available in the sources we used.

14. Research on the length and duration of poverty spells (Sawhill 1988, p. 1081) indicates that almost half of all poverty spells end within one year and 70 percent are over within three years. See also Bane and Elwood (1986) and Ruggles and Williams (1988).

two children. We do not provide any allowance for household furnishings or equipment, assuming that they will be depleted rather than maintained during a poverty spell.

C. Transportation

We assume that a family living in the central city or a suburb does not own a car and uses public transportation. Those who live in a rural area are allowed cash to operate a second-hand car. For nonrural parents who are employed 50 or more weeks per year, we allow \$500 per year for work-related transportation.¹⁵ In addition, all families are allowed \$2.50 per week per person for shopping and errands. For families of different sizes, we adjust only the nonwork-related transportation expenses.

D. Health Care

We have adopted the position that decency requires that a family have health insurance. For families getting health benefits from neither the government nor an employer we allow the average total premium cost of group health insurance covering lower-income families as reported in the National Health Care Expenditure Survey.¹⁶ The cost to a family of a health insurance policy is assumed not to vary with the number of children. For those receiving health insurance benefits from an employer or from the government, the health insurance component in the BNB is reduced to the amount the family must contribute to the premiums. All families get an allowance in their budgets for out-of-pocket health expenditures. In setting this allowance, we used expenditures typical of moderate-income families with health insurance, rather than the considerably higher expenditures typically made by poorer families uncovered by health insurance. Out-of-pocket expenditures for health care vary directly with age. Children younger than 6 years of age averaged \$197 per year, those between 6 and 18 averaged \$288, while adults averaged \$366 in 1989 dollars.

15. We allow for commuting \$1 per trip, two trips per day, five days per week, 50 weeks per year. Work-related transportation expenses are prorated according to actual number of weeks worked in 1989 as reported on the CPS questionnaire. Nonurban families are assumed to have a car, and parents with jobs are assumed to travel the median commuting distance reported in the CPS survey on travel to work. (U.S. Department of Commerce 1981), with a cost per mile equal to the IRS rate, which produces a commuting cost of \$982 per year.

16. We do not deal here with the reality that health insurance is not available to certain segments of the population at any price.

E. Child Care

Children under the age of 5 of a single parent holding a job are assumed to require full-time care, while children between the ages of 5 and 12 are assumed to need the equivalent of one-third of full-time care to cover periods after school and during summer vacations. The BNB child care expenditure standard uses the Internal Revenue Service's maximum allowed expenditures for purposes of claiming the child and dependent care tax credit, last reset in 1982 at \$2,400 per child. We would argue that this figure represented an official consensus on a reasonable expenditure on child care. Allowing for inflation brings it up to \$3,037 per child for 1989, or \$58 per week.

There are some economies of scale in the consumption of child care services. A family with more than two preschool children could hire a caretaker to come into its home for less than the cost of three full-time slots in institutional child care. With this in mind, we have used the IRS maximum allowance of \$4,800 (\$6,074 in 1989 dollars) per family for the Dependent Care Credit as a ceiling on child care expenses per family.

Some families receive government subsidies for child care, and a substantial number receive free care by relatives.¹⁷ For families that are imputed to receive such benefits, the cash requirement in the budget for child care is reduced or eliminated.

Like their higher-income counterparts, it can be surmised that many or most single parents with incomes just sufficient to buy the goods and services specified in the BNB use child care providers, some of them substandard, who are cheaper than the amounts we allow. As with all other budget categories, this standard has been established at a generous enough level to allow a single parent to do the "decent" thing regardless of whether she or he would actually do it.¹⁸ We comment further on this issue below.

17. The Children's Defense Fund (1988) and Robins (1988) estimate that approximately one in ten families with incomes less than 150 percent of the official poverty lines who need child care receive Title XX subsidies. The U.S. Bureau of the Census (1990b) estimates that approximately one in four preschool children and one in fifteen older children are cared for free of charge by relatives.

18. A recent USDA analysis (Schwenk 1989) of responses to the Consumer Expenditure Survey found that single mothers who were employed and paid anything for child care services paid "on average" \$1,463 per year in 1986. Average expenditure data are misleading, however, since they usually include many families who use much less than full-time care. A Runzheimer International (1989) study of the cost of full-time daycare in 1989 found that the average annual cost in the U.S. was \$3,432, more than 10 percent above our budget allowance.

F. Clothing

For the clothing component we update the BLS lower Family Budget allowance, subtracting the allocation for the husband's clothes. The clothing allowance of \$864 per year for a mother with two children also covers the costs of doing laundry at a laundromat estimated roughly as one load of laundry per person per week (about \$312 per year). Each family member is therefore left with \$184 per year for clothing purchases.

We allow clothing expenditures to vary proportionately to family size. We do not allow for hand-me-downs on the ground that little clothing will survive to be passed along from one family member to another because of poor quality.

G. Personal Care/Miscellaneous

In the BLS Family Budgets the personal care component consisted of services (principally haircuts) and products. We have eliminated the allowance for services. The BLS allowance for personal care products updated to 1989 is \$6.75 per person per month. For each child under the age of two we also provide a diaper allowance of \$7 per week. (This assumes that the parent uses generic disposable diapers or a diaper service, since we have made the assumption that the family does not own a washing machine.)

The BLS Family Budgets included allowances for reading materials, recreational expenses, educational costs, alcoholic beverages, and miscellaneous expenses. The Basic Needs Budget has no allowances for any of these items.

IV. Prescribed Versus Actual Distribution of Expenditures

The distribution of total expenditures over the seven groups of goods and services prescribed in the Basic Needs Budget should not be expected to correspond to that actually chosen on average by those families who have the level of income that the BNB specifies. The reason, of course, is that the BNB was arrived at without reference to data on consumer expenditures.

The official methodology also may prescribe a distribution of expenditures that does not correspond to the actual distribution, if the relation between total consumption and food consumption is specified incorrectly, and is not revised to reflect shifts in behavior patterns. Currently, in the 20 percent of the population with the lowest incomes, about 18 percent

of expenditure goes for food, rather than the 33 percent assumed in arriving at the poverty line (U.S. Department of Labor 1990).

The Leyden group's polling methodology, which has no explicit specification of budget categories, would appear exempt from a lack of correspondence. We may conjecture, however, that the Leyden method may exhibit a lack of correspondence between the normative standards that are implicit in the respondents' answers and actual spending, although the details of the discrepancy are not available for inspection, as they would be with the BNB. People of ample means who are asked about the income required for minimum adequacy will probably arrive at a response by taking their own budgets and mentally stripping them of purchases, such as alcohol, expensive footwear, and gambling stakes, that they consider to be luxuries and vices. Lower-income people, however, may configure their actual purchases quite differently. After all, they are leading the difficult life that most of the respondents to the Leyden group's poll are merely thinking about momentarily. Further, the tastes and propensities of those designated poor may be different from those of a sample of people representative of the entire population.

If families with income approximately sufficient to finance the Basic Needs Budget do not on average follow the prescribed spending pattern and so do not meet all the standards of adequacy, what is to be done? One possibility would be to raise the poverty line to the point at which minimally adequate spending on all commodity groups is actually achieved, on average. Alternatively, the poverty line might be lowered to a level that allows no substantial over-spending on any commodity group.

We would argue that neither course is appropriate. Designating a poverty cutoff and counting the number of people under it is, in the last analysis, a public expression of concern. Poverty-line budgets are best viewed as establishing the line separating those families on whose behalf the public feels it should suffer concern from those it feels entitled not to worry over. By allowing nothing in the BNB for common "vices" like the consumption of alcohol, we are essentially expressing what we judge to be a lack of public concern about whether the people who spend money on alcohol can manage to consume up to the standards set for the seven commodity groups. If it turns out that such public concern does exist, the budget can be expanded to include an alcohol allowance.

Conversely, by providing an allowance for commodities such as child care or health insurance that a typical family with an income equal to the BNB will choose to underspend and divert to other uses, we are expressing a public desire to preserve the ability to consume up to the designated standard. If the public is concerned about actual under-spending on some items covered by the poverty-line budget, the situation can be remedied

Table 1

Monthly Cost of Goods and Services Under the Basic Needs Budget (Exclusive of Taxes and Assuming No Noncash Benefits) for Four Illustrative Single-Parent Families in 1989

| | Parent at Home, Two Preschool Children, Midwest Central City | Parent with Job, Two Preschool Children, Midwest Central City | Parent with Job, Two Older Children, Northeast Suburban | Parent with Job, Two Older Children, South Rural Area |
|-----------------------|---|--|--|--|
| Food | \$250 | \$250 | \$326 | \$326 |
| Housing | 305 | 305 | 474 | 251 |
| Transportation | 33 | 73 | 73 | 115 |
| Health care | 239 | 239 | 255 | 255 |
| Child care | 0 | 506 | 0 | 0 |
| Clothing | 72 | 72 | 72 | 72 |
| Personal care | 50 | 50 | 20 | 20 |
| Total monthly cost | \$949 | \$1,495 | \$1,220 | \$1,039 |

by public provision of the goods in question, which will allow for an elimination of their cost from the poverty-line budget. This is precisely what has been done with the cost of educating children through elementary school and high school. It is a virtue of the BNB method rather than a defect that it allows any lack of correspondence between detailed normative standards and actual spending patterns to come out into the open, and be considered for remediation.

V. Income Requirements Under the Basic Needs Budget

Table 1 presents the monthly cost of goods and services in 1989 for Basic Needs Budgets for four illustrative cases of single-parent families with two children. The families differ by the age of the children, the employment status of the parent, and the place of residence. These differences affect minimum expenditure substantially, especially for child care, housing, and transportation.

A comparison of the first two cases shows the effect of taking a job on the BNB of a parent with two children of preschool age. The parent with

the job needs goods and services under the Basic Needs Budget that cost 58 percent more than the parent who stays out of the labor force, before changes in noncash benefits and taxes are considered. The third and fourth cases show budgets for families with older children in different residential specifications.

For Table 2, which is done on an annual basis, we have assumed that these same four illustrative families received certain noncash benefits, which reduced the after-tax income they required to meet the standards of the BNB. For the three families in which the parent is employed outside the home, we assume that the employer pays two-thirds of the group health insurance premium for family coverage. For the family whose parent is not employed, food stamps and Medicaid coverage are assumed. We also assumed that this family benefited from a housing program.¹⁹ (When using the BNB to differentiate the poor from the nonpoor in a data base such as the Current Population Survey, the receipt of some types of benefits are indicated on the tape; others are imputed, as described below.)

Table 2 also shows the income tax and FICA obligations of the prototype families with cash flow sufficient to finance the BNB level of consumption, after accounting for the noncash benefits. The household is assumed to use the standard deduction, the Earned Income Tax Credit (EITC),²⁰ and the Child and Dependent Care Tax Credit where appropriate.²¹

The before-tax cash flow needed to finance the BNB is considerably below the official poverty line for the at-home mother, when commonly received noncash benefits are allowed for. For the parents employed outside the home the allowances for work-related transportation and child care push the cash income requirements over the official poverty line by a wide margin.

19. The value of each of the benefits assigned the illustrative at-home single parent given in Table 2 is the average of the benefits received by single parents on the 1990 Current Population Survey tape who received any of that type of benefit.

20. The figures in Table 2 cast an interesting light on a problem with the way the Earned Income Tax Credit is structured. If the employed mother with preschool children is to pay for child care and buy the rest of the BNB, she needs an earned income at which the EITC is much reduced. This suggests that the phaseout of the EITC starts at much too low an income to give substantial help to many poor and near-poor single mothers of very young children.

21. In these illustrative cases state income taxes are set at 30 percent of the families' federal taxes, which is the average ratio of state to federal taxes estimated to be paid by single-parent families in the Current Population Survey. When using the CPS tape to count the poor, we use the Census Bureau's estimate of the state taxes actually paid, derived from the tax code for the state in which the family resided, as well as of the Federal taxes they paid. These tax estimates are on the tape.

Table 2
Annual Cash Flow Requirements Under the Basic Needs Budget for Four Illustrative Single-Parent Families, Accounting for Assumed Noncash Benefits and Taxes, 1989

| | Parent at Home, Two Preschool Children, Midwest Central City | Parent with Job, Two Preschool Children, Midwest Central City | Parent with Job, Two Older Children, Northeast Suburban | Parent with Job, Two Older Children, South Rural Area |
|---|--|--|--|--|
| Annual cost of goods and services in the absence of noncash benefits | \$11,388 | \$17,940 | \$14,640 | \$12,468 |
| | <i>Assumed Noncash Benefits</i> | | | |
| Food stamps | 1,950 | 0 | 0 | 0 |
| Public housing | 1,037 | 0 | 0 | 0 |
| Medicaid | 2,113 | 0 | 0 | 0 |
| Employer- provided health in- surance | 0 | 1,416 | 1,416 | 1,416 |
| Total, assumed non- cash benefits | 5,100 | 1,416 | 1,416 | 1,416 |
| | <i>Tax Obligations Consistent with Required Cash Flow, Allowing for Noncash Benefits</i> | | | |
| F.I.C.A. | 0 | 1,359 | 1,101 | 842 |
| Federal income tax | 0 | 1,132 | 616 | 99 |
| Dependent care credit | 0 | -1,132 | 0 | 0 |
| Earned income tax credit | 0 | -125 | -469 | -814 |
| State income taxes | 0 | 340 | 185 | 30 |
| Total, tax obli- gations | 0 | \$1,574 | \$1,433 | \$157 |

Table 2 (*continued*)

| | Parent at Home, Two Preschool Children, Midwest Central City | Parent with Job, Two Preschool Children, Midwest Central City | Parent with Job, Two Older Children, Northeast Suburban | Parent with Job, Two Older Children, South Rural Area |
|--|---|--|--|--|
| Before-tax cash flow required to support the Basic Needs Budget, given receipt of noncash benefits | \$6,288 | \$18,098 | \$14,657 | \$11,209 |
| Official poverty line | \$9,885 | \$9,885 | \$9,885 | \$9,885 |
| BNB cash re- quirement as a percent of federal poverty line | 64% | 183% | 146% | 113% |

A single parent with two children in a midwestern central city who must purchase child care services would need almost three times as large a cash flow to buy the BNB as a mother staying home and receiving AFDC and associated benefits. The mother holding a job would have needed an hourly wage of \$8.70 in 1989 to purchase the goods and services called for in the Basic Needs Budget, assuming the parent's employer pays two-thirds of the premium for group health insurance. If child care is provided free of charge or the children are old enough to care for themselves after school, the hourly wage requirement is reduced to about \$5.00.

The median earnings of all female year-round full-time workers in 1989 was \$18,778 (U.S. Bureau of the Census 1990a). A woman with two preschool children living in the midwest earning the median, whose employer pays for part of health insurance but who has to pay for child care herself, would have an annual surplus of only \$680 above the poverty level defined by the BNB.

A mother in New York State caring at home for two preschool children and receiving AFDC, Medicaid, and food stamps would be \$200 per month short of the cash flow required to pay for the Basic Needs Budget,

after accounting for the noncash benefits. The jobs available to many of these women are low paying and do not have fringe benefits. Under current programs intended to wean single mothers from welfare, if that woman accepts a job, there is a transition period during which she would retain some governmental benefits (Sykes 1990). After that period, a mother with a job paying \$4.25 an hour job who needed to pay for child care would have a monthly deficit from the BNB standard of \$642 if her employer paid for part of her health care, and a monthly deficit of \$759 if her employer had no health plan.

VI. Using the BNB to Count the Poor

To make a poverty count using the BNB, we used a March 1990 Current Population Survey microdata tape enhanced with information about benefits and with tax obligations estimated for each family. For each single-parent family on the tape, we figured a BNB tailored to that family's situation. The numbers and ages of the children, the labor force status of the parent, and the residential location were used to assign required child care, transportation, and housing expenses.

Responses to the questions on hours and weeks worked were used to assign child care and work-related transportation cost requirements for single parents who worked less than full time year-round. In the weeks that single parents were unemployed and therefore searching for work, they were deemed to require the child care and transportation services allotted to part-time workers. Region of residence and intra-area location was used to assign rent requirements.

For those families who reported receiving noncash benefits, either public or private, the appropriate category of the BNB was adjusted downward to reflect the reduced need for cash expenditures. Following Smeeding (1982), the cash value of a noncash benefit is not allowed to exceed the BNB expenditure standard for that category. The food expenditure we deem the family to need is reduced by the market value of food stamps and free or reduced-price school lunches received. For housing subsidies and energy assistance we used the market value estimates made by the Census Bureau, and subtracted that from housing expenditure deemed necessary. For those who reported receiving health insurance benefits from an employer or from the government, the health insurance component in the BNB is reduced to the amount the family must contribute to the premiums.

We take account of child care that is publicly subsidized or donated by relatives. The CPS does not include any questions that enable us

to determine whether a particular family received subsidized child care services, but we do have data on the proportion of families who receive it. A random number generator was used to assign to individual families places in publicly subsidized child care and free care from a relative.

For each family on the CPS tape, the Census Bureau provides simulated income and social security tax obligations. These amounts are subtracted from reported income, and a family is designated poor if its after-tax income is less than the cash flow required to finance its BNB (exclusive of taxes) after accounting for noncash benefits.

VII. Poverty Rates for Single-parent Families Using the Basic Needs Budget

Using the BNB thresholds produces a poverty rate in 1989 for single parents with minor children of 47 percent—21 percent higher than the officially reported rate of 39 percent. It adds 711,000 single-parent families and more than two million individuals in such families to the ranks of those judged to be living at less than a decent standard. Using the official thresholds, the poverty rate for children under the age of 18 living in single-parent families was 48 percent. Using the Basic Needs Budget thresholds, the poverty rate for these children increases to 56 percent. These results are summarized in Table 3.

The use of the Basic Needs Budget poverty thresholds results in poverty rates for AFDC recipients (defined as families with more than half of family income from AFDC) of 89 percent, as compared with the 97 percent rate in the official statistics. On the other hand, among those families in which the single parent was employed year-round full time, the estimate of the poverty rate soars from 9 to 23 percent.

One of the subgroups with the highest poverty rate is the group of single-parent families with preschool children (younger than five years old). Using the Basic Needs Budget, the poverty rate of single-parent families with preschool children exceeds 61 percent. The equivalent statistic using the official poverty lines is 52 percent.

Use of the BNB poverty definition also results in important differences in the characteristics of the group of single-parent families designated as poor. Only 10 percent of the officially designated poor families have household heads who work full time year round. Using the BNB thresholds doubles that percentage. Among officially poor families, 42 percent depend on AFDC for more than half their income, while less than one-third of BNB poor families are welfare dependent.

Table 3

Poverty in Single-Parent (SP) Families in 1989, Under the Basic Needs Budget Method, as Compared with the Official Method

| | Poverty Definition | |
|--|--------------------|------------------------------|
| | Basic Needs Budget | Official Method ^a |
| Poverty rate of SP families | 47% | 39% |
| Number of poor SP families | 4,147,000 | 3,436,000 |
| Number of poor persons living in SP families | 14,057,000 | 11,905,000 |
| Poverty rate of children under 18 living in SP families | 56% | 48% |
| Number of poor children living in SP families | 8,771,000 | 7,514,000 |
| Poverty rate of SP families with jobs | 37% | 24% |
| Poverty rate of SP families with full-time year-round workers | 23% | 9% |
| Poverty rate of AFDC families (defined as families with 50% or more of income from AFDC) | 89% | 97% |

Table 3 (*continued*)

| | Poverty Definition | |
|--|--------------------|------------------------------|
| | Basic Needs Budget | Official Method ^a |
| Percent of poor SP families in which the single parent was employed outside the home | 56% | 45% |
| Percent of poor SP families with more than half their income from AFDC | 32% | 42% |

a. Current Population Survey: March 1990 (U.S. Bureau of the Census 1991).

While the BNB poverty rate is higher than the official poverty rate for all regions and locations, the percentage difference varies considerably, ranging from 3 percent for rural midwestern families to 55 percent for suburban Western families.

VIII. Policy Implications of the Basic Needs Budget

Critics of the official methodology of compiling poverty statistics have rightly castigated the neglect of governmental noncash benefits. We have taken them into account, and gone further, accounting for privately provided benefits in health care and child care, something previously not done. A method that does this, and explicitly accounts for the child care and health care needs of families as well, produces poverty counts that are larger rather than smaller than the official one. The suggestions from some conservatives that poverty in the United States is a

far smaller problem than shown by the official statistics can at least be debated intelligently with the methods we provide.²²

The Basic Needs Budget opens to detailed public scrutiny something that up to now has been hidden in vagueness—the standard of living possible on a poverty-line income that is derived in a detailed and rational manner. Opening the details of the poverty-line budget to scrutiny makes clearer and more concrete the plight of those who have even less. It also makes clearer the kinds of measures that could be taken to push large numbers of people over the line towards adequacy.

The Basic Needs Budget highlights the difficult situation of the single parent with even an average-paying job, and makes it easier to understand why so many refrain from the job market. Under present conditions, a single parent with two preschool children employed full time and getting health benefits from the employer needs an hourly wage of about \$8.70 to achieve adequacy under the BNB standard. Providing subsidized health insurance to those single parents whose jobs do not offer it and free child care to all single-parent families would reduce hourly wage needed to about \$5.00, which is in the 40th percentile of wages earned by mothers, and close to the median wage for single mothers.²³

The provision of a health insurance guarantee and free care for the children of single parents, plus cash allowances or child support payments to further reduce the wage needed to attain adequacy offers a way to motivate work effort and provide adequately, off welfare, for the millions of single-parent families in this country. Other countries have made such provisions and have set up their welfare programs as time-limited emergency fallbacks. They have been rewarded by the resultant payoff in far lower poverty rates among their children.²⁴

IX. Extension of the Basic Needs Budget Method

It would not be difficult to extend the Basic Needs Budget method of determining the incidence of poverty to all types of households, to extend it backward in time, and to set up a system for providing

22. A recent publication of the Heritage Foundation (1990, p. 2) states that “with . . . [the inclusion of noncash benefits], the number of poor persons would be shown to be only a small fraction of the Census Bureau’s current estimate.”

23. A recent study by the U.S. General Accounting Office (1991) found that the median wage for single mothers using the National Longitudinal Survey of Youth was \$5.15 in 1989 dollars, which is just sufficient to support the Basic Needs Budget with free child care and partly subsidized health insurance.

24. See Bergmann (1992) and Kamerman and Kahn (1978). For poverty rates see Suesser (1990).

annual poverty counts on this basis for the future. Data on noncash benefits in the March Current Population Survey on which the poverty count is based go back to 1980. Extending the estimate back to years before that would require simulating the distribution of all noncash benefits (Smeeding 1975).

In extending the BNB approach from single-parent families to other kinds of households, the problematic areas in setting up the standards would be in the treatment of housing and child care. It would probably be considered reasonable to assign two-earner couples a child-care allocation depending on hours worked, and not to demand that they cover child care by working different shifts, although some two-earner couples currently avoid buying child care by doing so (Presser and Cain 1983). The type(s) of housing space to be considered adequate for the single person would also be an issue. The authors are in the process of extending the "BNB Manual" used in the present study along such lines.

An annual poverty count for the entire population using the BNB method by the Bureau of the Census would be only slightly more complicated to perform than the current count. Almost all of the data that would be used are already collected annually. More detailed adjustments for price changes would have to be made than is currently the case, and changes during the year in the structures of direct taxes would have to be taken into account. However, the timing of release of the poverty statistics would be little affected, if at all. As with the official method now used, the BNB would lend itself to a calculation of the aggregate gap between the actual income of the poor and the poverty line.

The BNB method would lend itself to periodic reconsideration of the collection of goods and services deemed necessary to "adequacy," in a way that the official poverty line, based seemingly on unchanging biological need, does not. The most common source of changes would most likely be the introduction of new commodities deemed necessary, such as dental insurance.

Making periodic changes in the commodities included in the BNB would mean a shift toward a relative concept of poverty. Such changes would also lead to concerns with continuity. Since the poverty count is an attempt to discover the number of people whose condition occasions public concern, however, periodic changes in standards might well improve continuity rather than disrupt it.

The present official method of counting the poor is simple, but that simplicity conceals a failure to take into account what plainly needs to be accounted for. It also conceals the reality of life at a poverty-line income. The modest complications of computing and applying a detailed budget approach like the one exemplified in the BNB are a small price to pay for improvement.

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