WORKING PAPER 392/COMPUTER MANUAL 22

DATAPAC : A PROGRAM FOR THE EXTRACTION OF CENSUS AND VITAL STATISTICS FOR LEEDS WARDS

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ABSTRACT

This paper documents for general use the information on Leeds wards derived from the 1971 and 1981 Censuses, and local vital statistics records, and describes how the data may be accessed using an interactive program DATAPAC.

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1. INTRODUCTION

1.1 The development of a social information system for Leeds

The expansion in the use of computers since the early 1970s has seen a corresponding growth in the production of small area information in machine readable form from bodies such as the Office of Population Censuses and Surveys (OPCS) and from local councils and health authorities. In addition, wider access to computer software and hardware has been of great benefit in both the creation and management of computerised information especially for those engaged in various forms of record-keeping, surveys or research activities. These trends have had effects in Leeds with the result that there now exists a sizeable amount of computerised information on various aspects of life in the City.

Much of the computerised information for Leeds is in the form of Small Area Statistics (SAS) from several population censuses (1961, 1971 and 1981) at a variety of spatial scales (enumeration districts, kilometre squares, electoral wards). A wide body of data has also been released for University use by the Leeds Area Health Authority (births and deaths records, hospital activity analysis surveys, cancer registrations) and also by the City Council (the 1978 population survey) and through other sources (for example, demographic data from the West Yorkshire Transportation Study, survey information from the University's Department of Sociology).

There is, however, a considerable variation in the ease with which some of this information can be accessed and extracted for examination. Where an organised system exists for the dissemination of information, ease of access to data can be greatly improved. Examples of these systems are the TABULATE program, developed at Leeds University for extracting 1981 Census data for West Yorkshire wards (Birkin and Rees, 1982) and the SASPAC program, accessible via the University of Manchester Regional Computer Centre (URMCC) and providing nation-wide coverage of 1981 enumeration district information (University of Manchester Regional Computing Centre, 1981). These systems are effective because they provide the user with permanent access to the data files and offer a data-handling procedure which is simple to use. Each system also has the benefit of comprehensive documentation and a clearly defined set of instructions for running the appropriate computer programs. As a result they enable the user to select variables for extraction in table or data matrix form with a minimum of preparation. It is the absence of systems such as these for handling the bulk of social data on Leeds which the development of the DATAPAC (DATA handling PACkage) program is intended to remedy.

1.2 The role of DATAPAC

The DATAPAC program, which is described in detail later in this manual, is an interactive census and vital statistics data extraction package designed for the general user. Its function is to produce ward-level statistics for Leeds in either table or data matrix form using information contained within a series of SPSSX (Statistical Package for the Social Sciences Version X) System Files.

The decision to feed the various census and health data sets into the SPSSX system was taken because the procedures it contains (labelling and data-definition options, for example) facilitate the efficient storage and management of machine-readable data. This was considered a necessary first step in setting up a social information system for Leeds. Additional benefits accrue from the procedures available for data manipulation and statistical analysis in SPSSX which generate a wide range of data processing options.

The role of DATAPAC is to integrate each of the social information files into a single data extraction system. Its mode of operation is to use the information entered from a computer terminal in response to programmed questions to create a set of instructions which can be read by SPSSX. The instructions include the filename and filetype of the required data set, lists of variables to be extracted, information such as column headings and titles for tables and, where appropriate, the identification numbers for selected wards. The commands for running DATAPAC are outlined in Section 4 below.

1.3 Spatial framework and table ordering

The spatial framework for the majority of information files accessible through DATAPAC is the set of 33 Leeds Metropolitan District wards used at the 1981 Census, shown in Figure 1. The wards are arranged in two lists. The alphabetical list on the left hand side is that used by the Office of Population Censuses and Surveys in their Small Area Statistics. In most of the DATAPAC files the wards are sorted in a different order, that given on the right of Figure 1.

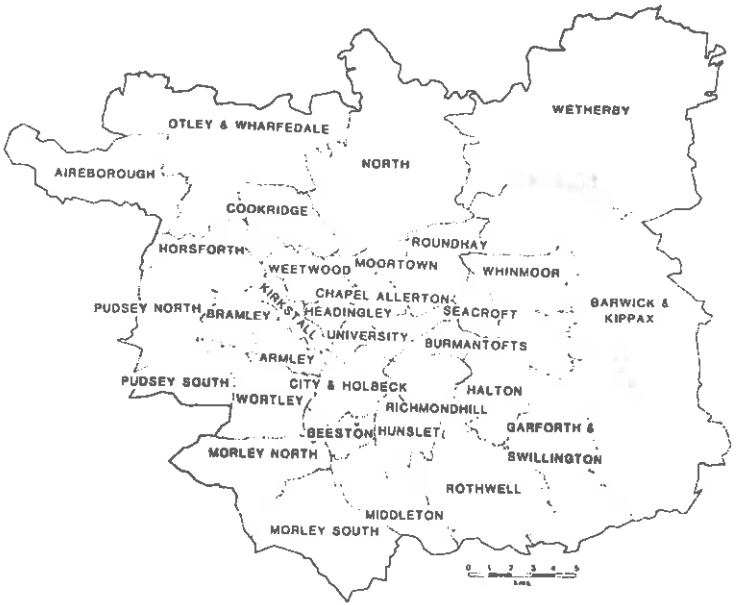
The files have been processed to produce tables with the electoral wards arranged in descending order of 'deprivation status' which was measured by a composite index derived from a principal components analysis of 1981 Census variables (Hirschfield, 1984). This rank order is demonstrated in Table 1

ALPHABETICAL ORDER

A1 AIREBOROUGH
A2 ARMLEY
A3 BARWICK & KIPPAX
A4 BEESTON
A5 BRAMLEY
A6 BURMANTOFTS
A7 CITY & HOLBECK
A8 CHAPEL ALLERTON
A9 COOKRIDGE
A10 GARFORTH & SWILLINGTON
A11 HALTON

A12 HAREHILLS
A13 HEADINGLEY
A14 HORSFORTH
A15 HUNSLET
A16 KIRKSTALL
A17 MIDDLETON
A18 MOORTOWN
A19 MORLEY NORTH
A20 MORLEY SOUTH
A21 NORTH
A22 OTLEY & WHARFEDALE

A23 PUDSEY NORTH
A24 PUDSEY SOUTH
A25 RICHMOND HILL
A26 ROTHWELL
A27 ROUNDHAY
A28 SEACROFT
A29 UNIVERSITY
A30 WEETWOOD
A31 WETHERBY
A32 WHINMOOR
A33 WORTLEY



DEPRIVATION ORDER

D1 UNIVERSITY
D2 HAREHILLS
D3 CITY & HOLBECK
D4 CHAPEL ALLERTON
D5 RICHMOND HILL
D6 HUNSLET
D7 HEADINGLEY
D8 BURMANTOFTS
D9 SEACROFT
D10 KIRKSTALL
D11 MIDDLETON

D12 ARMLEY
D13 BRAMLEY
D14 BEESTON
D15 MORLEY SOUTH
D16 WORTLEY
D17 WEETWOOD
D18 PUDSEY SOUTH
D19 WHINMOOR
D20 ROTHWELL
D21 MORLEY NORTH
D22 BARWICK & KIPPAX

D23 AIREBOROUGH
D24 PUDSEY NORTH
D25 OTLEY & WHARFEDALE
D26 MOORTOWN
D27 HORSFORTH
D28 COOKRIDGE
D29 GARFORTH & SWILLINGTON
D30 NORTH
D31 ROUNDHAY
D32 HALTON
D33 WETHERBY

FIGURE 1. The 33 wards of Leeds Metropolitan District at the 1981 Census.

TABLE 1. **Selected indicators from the DATAPAC system**

WARD	UNEMPLOYD	NO CAR	CROWDING	MN WEIGHT	B MUM <20	B ILLEGIT	INFANT MR	MALE SMR
UNIVERSITY	1979	7566	364	3209	1714	2559	16	112
HAREHILLS	2061	6567	627	3152	1626	2270	13	122
CITY & HOLB	1846	7128	306	3213	1770	1397	12	116
CHAPEL ALL	1960	5961	557	3193	1640	2926	23	119
RICHMND HILL	1799	6942	599	3227	2122	2326	12	117
IDNSLET	1682	7213	382	3207	1956	2219	19	117
GEND ENGLEY	1570	5865	313	3196	889	1633	19	119
BURMANTOFTS	1736	6941	512	3190	1669	2405	11	119
SHADCROFT	1765	6305	468	3211	2124	2508	25	112
KIRKSTALL	1249	6241	342	3284	1184	1579	12	120
MIDDLETON	1364	5916	438	3241	2073	2311	6	96
ARMLEY	1215	5907	362	3262	1780	1790	12	113
WORTLEY	1260	5891	396	3266	1251	1570	11	106
BEESTON	1101	5801	238	3307	1238	1336	10	100
MORLEY SOUTH	835	4617	365	3294	989	998	17	104
HUNSLEY	920	5100	279	3289	1030	931	7	115
SHERWOOD	842	4353	176	3329	1319	1502	7	97
PUDSEY SOUTH	844	4637	296	3298	1018	1056	12	103
WHINMOOR	991	4514	328	3280	1083	1150	7	105
ROTHWELL	569	3883	177	3373	535	268	7	101
MORLEY NORTH	658	3749	191	3294	623	337	8	90
WORWICK	596	3315	240	3364	623	335	5	79
AIREBOROUGH	583	3540	120	3317	334	434	18	94
PUDSEY NORTH	612	3537	193	3344	683	571	10	92
OTLEY	496	3359	126	3413	476	561	11	82
MOORTOWN	577	3838	102	3336	288	373	7	98
HORSFORTH	550	3181	115	3352	467	637	4	83
COOKRIDGE	532	3031	130	3380	494	694	11	75
GARFORTH	530	2974	186	3344	392	222	6	85
NORTH	476	2899	84	3336	245	408	11	81
ROUNDHAY	604	2543	78	3387	265	383	12	72
HALTON	556	3084	134	3362	576	653	6	76
WETHERBY	447	2313	99	3321	317	48	8	77
LEEDS M.D.	1030	4797	283	3290	1106	1291	12	100

Notes

Leeds M.D. = Leeds Metropolitan District

Variable definitions

Unemployd	Econ active unemployed per 10,000 econ active 1981 Census
No car	Households without a car per 10,000 private hlds 1981 Census
Crowding	Households living at >1.0 persons per room per 10,000 1981 Census
Mn weight	Mean birthweight in grammes for births between 1978-1980
B mum <20	Births to mothers under 20 per 10,000 live births 1978-1980
B illegit	Illegitimate births per 10,000 live births 1978-1980
Infant MR	Infant deaths per 1,000 live births 1978-1980
Male SMR	Standardized Mortality Ratio for male deaths all ages all causes in 1978 (SMRs take into account the sex-age distribution of the total population)

which list eight indicators from the DATAPAC information system. The first three indicators, all rates per 10,000 base population, are variables that enter into the construction of the deprivation rank ordering. Each is closely, though not perfectly, associated with the composite index of deprivation. The other six indicators are various births and deaths measures. Visual inspection of the table shows that there is a close association between these variables and the deprivation rank order. By ordering the information in this way, we hope that every user of the system will be confronted with the question: to what extent is the indicator I am looking at associated with the degree of deprivation of the ward populations?

The user may over-ride this deprivation rank order and produce tables with the 1981 Wards sorted in ascending order of deprivation intensity, in alphabetical order or in ascending/descending order of any one of the DATAPAC variables in the selected data file. The steps involved are outlined in Table 11 and Section 4.3.1 below.

The other set of wards for which data exist were drawn up following local government re-organisation in 1974. There are 32 of these in the Metropolitan District and their distribution is shown in Figure 2. Only one data set contains information for these wards (the second general mortality file) and they are arranged in alphabetical order in this file.

All data files include information for the Leeds Metropolitan District as a whole which is treated as an additonal spatial unit and is positioned as the last case or observation in the file.

1.4 Structure of the manual

The second section of the manual discusses the nature of the variables chosen from the 1971 and 1981 Censuses, and the three further sets of indicators that have been constructed from the Census variables. Section 3 describes the range of birth and death statistics derived from individual records that have been assembled for wards.

The fourth section of the manual teaches the reader how to run the DATAPAC program on the University of Leeds Amdahl Computer, how to run SPSSX (Statistical Package for the Social Sciences, Version X) procedures using the DATAPAC information files, and how to construct maps of the variables selected from the DATAPAC system using the GIMMS (Geographical Information Mapping and Management System) package.

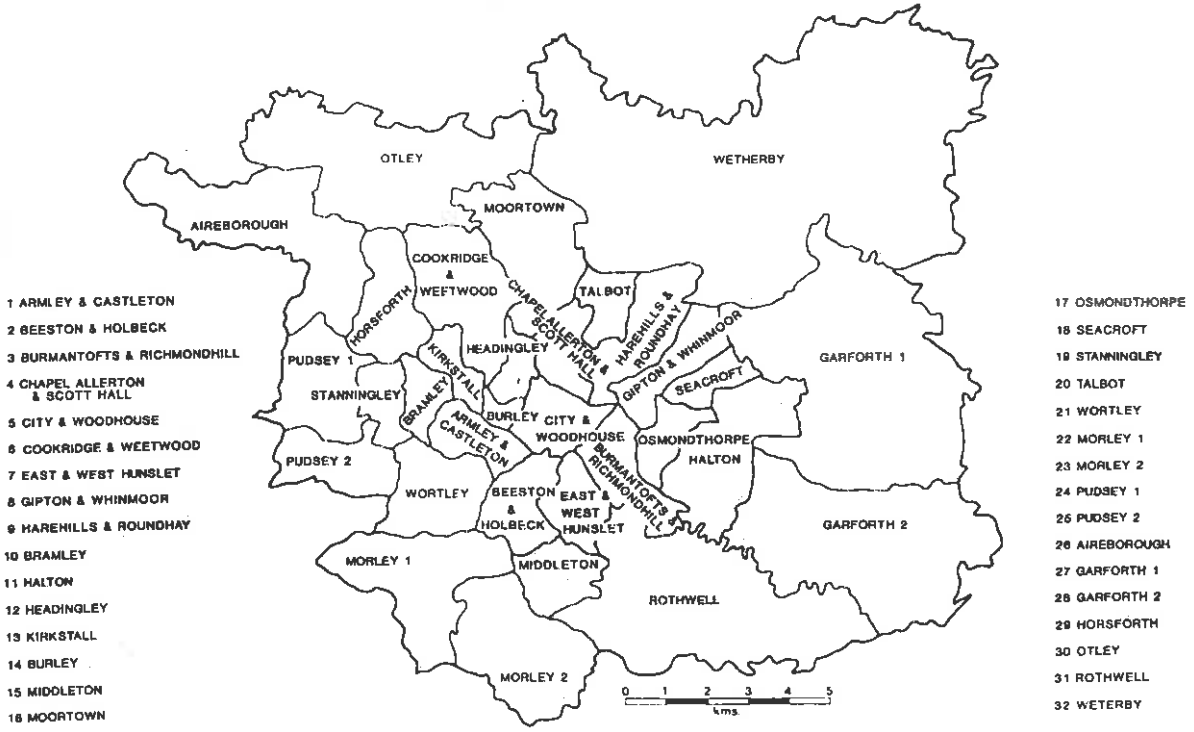


FIGURE 2. The 32 wards of Leeds Metropolitan District at local government reorganization in 1974.

2. INFORMATION FROM THE CENSUSES OF 1971 AND 1981

2.1 Introduction

The bulk of material currently accessible through the DATAPAC system comprises data from the Population Census Small Area Statistics (SAS). All DATAPAC census files contain sub-sets of the total available SAS and as such are products of data selection. In order that these selected variables be discussed in their full context an introduction to the content of the 1971 and 1981 Census SAS needs to be given.

2.2 The structure of the Census Small Area Statistics and the range of topics covered

Although there were changes between the 1971 and 1981 Population Censuses in the range of topics covered and in the magnitude of the information collected, the general fields of investigation, basic layout of the results and spatial frameworks employed were broadly consistent. Thus, in both 1971 and 1981 the hierarchy of spatial units, which formed the geographic base of the census, involved the same five levels of spatial resolution : regions, counties, districts, ward parishes and enumeration districts. Small Area Statistics, as the name implies, are produced for the smaller geographical units in this areal set, namely the enumeration districts, wards (in urban areas) and civil parishes (in rural areas). In 1971, SAS were also produced for general release at kilometre square level but for 1981 will only be supplied for these units on a special order basis.

Enumeration districts, as the territorial units covered on census day by one enumerator, constitute the smallest spatial zones in the hierarchy and contain, on average, approximately 450 persons. The boundaries for only 40% of these remained unchanged between the two censuses.

Wards and civil parishes represent the next level in the hierarchy. Urban wards are defined each year as the territorial basis for local council elections and as such are very susceptible to boundary changes. Thus they can alter radically between censuses. The Leeds Metropolitan District area, for example, comprised 108 wards and parishes in 1971, 32 wards following local government reorganisation in 1974 and 33 wards at the time of the 1981 Census. The availability from Leeds City Council of 1971 Census Small Area Statistics specially reconstituted for the 1981 wards helped to overcome the serious obstacles these boundary changes presented for studies on inter-censal change. This is discussed further in Section 4 below.

In both 1971 and 1981 the Small Area Statistics were produced in three sections:

(1) Population and household tables on a 100% survey basis available for areas throughout Great Britain.

(2) Population tables on a 10% survey basis available throughout Great Britain.

(3) Tables available for areas in England or these tables and the Welsh language table available for areas in Wales only or tables available for areas in Scotland only.

Details of the table layouts for 1971 and 1981 are given in Dewdney (1981), Rhind (1983), OPCS (1980), OPCS (1982a) and OPCS (1982b).

The following general topics were embraced by both the 1971 and 1981 Censuses:

(1) Demographic Characteristics
(2) Economic Characteristics
(3) Housing and Amenities
(4) Household Composition
(5) Socio-Economic, and
(6) Place of Birth Characteristics

There were, however, some important differences between the 1971 and 1981 Census Surveys which need to be discussed.

2.3 Changes in the population censuses, 1971-81

The 1971 Census Small Area Statistics comprised 28 tables containing 1,571 cells. By contrast, the 1981 Census contains up to 53 SAS tables for a given small area producing over 4,000 separate statistical counts. This seems surprising given that fewer questions were asked in 1981 than in 1971, although information yields were greatly improved through changes in the structuring of questions and the tabulation of the answers. Consequently, new material is available for 1981 which was not recorded at the previous census.

Much of the 'new' information is in crosstabulated form and includes, for example, tables showing levels of amenity provision for different types of household containing children (1981 SAS Table 31) and within pensioner households (SAS Table 32). There are also breakdowns of employment status by sex and age (SAS Table 9), of household type by tenure (SAS Table 29) and a series of tables on employment of married women and lone parents classified by presence of children (SAS Tables 19, 27).

Variables available in 1971 which have no equivalent in the 1981 Census are fewer in number. Examples of these include parents' birthplace, residential address five years prior to the census, the possession of A-level, ONC or equivalent qualification and the actual number of hours worked per week for employees.

In addition to the differences in content observed between the censuses there was also a change in the population bases employed. In 1981, the census tabulations were based for the first time on a *de jure* population, which is those persons normally resident in the area of enumeration irrespective of their presence at the time of enumeration. This represented a change from the *de facto* population base used in 1971 where only those present in the area at the time of enumeration were counted. Consequently, in several 'comparable' SAS tables data given for 1971 on a *de facto* basis (residents present) are supplied for 1981 on a *de jure* basis (residents present and absent).

The effect of these changes is to limit the number of strictly comparable counts to 103 measures from a pool of 452 variables common to both sets of Small Area Statistics.

2.4 The choice of census files for the information system

Information from the 1971 and 1981 Census SAS may be selected according to a number of criteria and stored on the computer in several abridged forms. For example, three types of master file could have been compiled representing:
(1) variables from the Small Area Statistics available for 1971 only;
(2) variables from the Small Area Statistics available for 1981 only; and
(3) comparable Small Area Statistics for 1971 and 1981.

Given space and resource constraints, choices had to be made concerning the number and size of the census files to be used with DATAPAC. Since only a few variables present in 1971 were unavailable in 1981 a decision was taken not to produce a '1971 only' census file. There were advantages in creating a file of selected variables which were only available for 1981 since these could be tabulated or analysed to produce relatively contemporary profiles of the City. A file of comparable 1971-81 SAS would constitute a valuable source of data on social change in Leeds and as such was viewed as the corner stone of any information system.

Consequently, two categories of census file were created for the information system : namely, a sub-set of variables peculiar to 1981 and a selection of reasonably comparable Small Area Statistics for 1971 and 1981. For each category of census data there are four files, one containing the raw count data and the remainder housing the same information but in a variety of processed forms (as ratios or location quotients, for example).

A list of the census and vital statistics files made available to the system appear at Table 2. In the ratio files (file codes 2 and 6) the census numerators are expressed as ratios to their appropriate denominator (for example, the number of households without a car expressed per 10,000 private households). In the concentration files (file codes 3 and 7) the numerator in each ward is expressed as a percentage of the total count for Leeds Metropolitan District. Finally, the location quotients (file codes 4 and 8) express the ratio value for a given variable in each area as per 10,000 of the ratio for the city as a whole. These measurements are defined and discussed in greater detail in Section 2.7.

2.5 The selection of a set of 1971-81 comparable census variables

Some 229 variables were chosen for inclusion in the 1971-81 comparable SAS files. Although inexhaustive of the full range of comparable statistics (over 400 measures in all) they constitute a reasonable sample of measures for each major topic covered by the census. The subjects covered by these comparable variables and their relationship to the general fields embraced by the census appear in Table 3.

In the files for use with the DATAPAC program the 229 variables for 1971 are prefixed by the letter 'A' and their counterparts for 1981 by the letter 'B'. A third category of measures, prefixed by the letter 'C' express the 1981 variable as a percentage of its 1971 equivalent. These are called the 'change variables'.

The effect of this design is to enable variables from each census to be identified on a consistent basis. Hence, persons aged 0-4 as variable number 5 is A5 for 1971, B5 for 1981 and C5 for the 1971-81 percentage change. This format is adopted for all 229 variables included in all comparable SAS files.

A full list of definitions for the 229 selected variables together with a series of tables showing their layout and DATAPAC cell numbers appears as Appendix 1.

TABLE 2. Files of census and vital statistics for Leeds wards contained in the DATAPAC system

DATAPAC CODE NUMBER	FILENAME	DESCRIPTION OF FILE	VARIABLES IN FILE	RUNNING TOTAL
1971-81 censuses, comparable SAS				
1	LEEDSRAW	Counts	687	687
2	LEEDSRAT	Ratios	687	1374
3	LEEDSCON	Concentrations	687	2061
4	LEEDSLQ	Location quotients	687	2748
1981 census, selected SAS				
5	LDS81RAW	Counts	452	3200
6	LDS81RAT	Ratios	452	3652
7	LDS81CON	Concentrations	452	4104
8	LDS81LW	Location quotients	452	4556
1978-80 selected births statistics				
9	BORNRAW	Counts	67	4623
10	BORNRAT	Ratios	67	4690
11	BORNCON	Concentrations	67	4757
12	BORNLQ	Locations	67	4824
1978-80 infant mortality statistics				
13	IDEATHS	Counts	48	4872
1978 selected mortality statistics				
14	GMORT81	Mortality statistics 1981 wards	342	5214
15	GMORT74	Mortality statistics 1974 wards	112	5326
Consolidated ratios file				
16	MULTFILE	Ratio data from files 2,6,10, 13 and 14	1596	6922

Notes

All files have the filetype SPSSXFIL

1. SAS = Small area statistics
2. SMR = Standardized mortality rate
3. In files 1-4, there are 3 sets of 229 variables each, for 1971, for 1981 and for 1971-81 change
4. Counts = $P(k,i)$ = count of persons with characteristic k in ward i
5. Ratios = $P(k,i)/P(*,i)$ 10,000 = proportion (per 10,000) that persons with with characteristic k in ward i make up of the ward i population ($P(**)$)
6. Concentrations = $P(k,i)/P(k,*)$ 10,000 = proportion (per 10,000) that persons with characteristic k in ward i make up of the city population with characteristic k ($P(k,*)$)
7. Location quotients = $\{ P(k,i)/P(*,i) \ / \ P(k,*)/P(*,*) \} 100$

TABLE 3. Subjects covered by the census variables (1971-81 censuses, comparable SAS files)

GENERAL CENSUS TOPIC	SUBJECT AREA	NUMERIC ORDER OF VARIABLES
1. Demographic characteristics	Population totals and age groups	1 - 64
2. Place of birth characteristics	Country of birth by sex	65 - 88
3. Economic characteristics	Economic activity-employment status	89 - 101
4. Housing and amenities	Amenities and overcrowding by tenure	102 - 137
	Car ownership	138 - 144
5. Household composition	Households with rooms by tenure	145 - 179
	Persons in household	180 - 187
	Households with children and pensioners	188 - 196
6. Socio-economic characteristics	Socio economic groups and groupings	197 - 223
	Social class groups and qualifications	224 - 227, 229
	Total economically active and retired	228

The selection of the 229 comparable variables was made with the aim of maximising the amount of material descriptive of the social geography of Leeds within the constraints of data availability. As a result, the selected variables provide sufficient material for a comprehensive ward-level study of the City's social structure for both 1971 and 1981 and for a detailed analysis of inter-censal change. Examinable topics in this regard include the study of housing tenure, population age structure, household size, house size, ethnic status and social class. The need to include a selection of deprivation indicators was also recognised. Consequently, variables measuring employment status, educational attainment, skill levels and housing amenity provision were included.

Among the comparable variables omitted from the data files but which could have been included were measures of unemployment by socio-economic group and information on mode of travel to work and industry of employed person by socio-economic group. There is plenty of scope, however, for adding further comparable variables to the census data files should the demand arise.

There are important definitional differences between the 1971 and 1981 census measures for 11 of the 229 comparable variables. A full description of these variables along with their differences appears in Table 4.

The first 10 items listed in Table 4 demonstrate definitional differences between 1971 and 1981 for variables measuring exclusive use of all basic housing amenities by tenure. The omission of information on the hot water amenity for 1981 mars any strict comparison with the nearest equivalent variable for 1971 which included access to hot water. On the other hand, in 1971 over 90% of Leeds households had plumbed hot water and the likelihood is that by 1981 levels of provision for this amenity would have increased still further thereby reducing its significance in a composite measure of amenity provision.

The second group of variables with definitional differences refer to the number of children within households by age. In the 1971 Census only persons up to 14 years of age were included as children but by 1981 this category had been extended to include 15 year olds because the school leaving age had been raised. Interpretations of inter-censal comparisons using these indicators must take into account such differences. Variable A8 which gives the number of 15 year olds for 1971 (B8 for 1981) can be used in this context to provide background information.

TABLE 4. Definitional differences between 1971 and 1981 'comparable variables'

A103	Households with exclusive use of bath, inside WC and hot water
B103	Households with exclusive use of bath and inside WC
A111	Households in owner-occupied acc. with exclusive use of bath, inside WC and hot water
B111	Households in owner-occupied acc. with exclusive use of bath and inside WC
A118	Households in council-rented acc. with exclusive use of bath, inside WC and hot water
B118	Households in council-rented acc. with exclusive use of bath and inside WC
A125	Households in unfurnished-rented acc. with exclusive use of bath, inside WC and hot water
B125	Households in unfurnished-rented acc. with exclusive use of bath and inside WC
A132	Households in furnished-rented acc. with exclusive use of bath, inside WC and hot water
B132	Households in furnished-rented acc. with exclusive use of bath and inside WC
A188	Households with no children aged 0-14
B188	Households with no children aged 0-15
A189	Households with one child aged 0-14
B189	Households with one child aged 0-15
A190	Households with two or more children aged 0-14
B190	Households with two or more children aged 0-15
A192	Households with one child aged 5-14
B192	Households with one child aged 5-15
A194	Households with two or more children aged 5-14
B194	Households with two or more children aged 5-15

Notes

acc. = accommodation
WC = water closet (lavatory) (toilet)

2.6 Data from the 1981 Census

The need to produce additional census files for 1981 only arose from the changes which had occurred since 1971 in the quantity of information available and its level of resolution. The number of cell counts had increased three-fold compared with 1971 and there were many more useful cross-tabulations which covered the housing conditions, economic circumstances and household characteristics of minority groups (single parent families, persons with New Commonwealth origins) and other sections of the population (pensioners and children, for example). It was recognised that an information system should include a set of more detailed Small Area Statistics and not be limited solely to the broader group of 1971-81 comparable variables.

A total of 452 variables were extracted from the 1981 Census and placed into 4 SPSSX System Files for use with DATAPAC. These files were created along the same lines as the comparable 1971-81 data sets and comprised copies of the raw data and information expressed in ratio form, as concentration percentages, and as location quotients.

Table 5 sets out the specific subjects covered in the 1981 files in relation to the general topics embraced by the census SAS.

The population totals (Topic 1) are based on the 1981 Census count and record the number of usually resident persons both present and absent on census day. The full range of countries of birth is included (Topic 2) and other measures describe the economically active and unemployed populations in some detail (Topic 3).

Rates of overcrowding, the provision of housing amenities and levels of car ownership enjoy extensive coverage in the 1981 file with breakdowns provided by housing tenure and for households with pensioners, dependent children (including single parent families) and with resident heads born in the New Commonwealth or Pakistan (Topic 4).

The remaining variables classify selected types of household by housing tenure (Topic 5) and describe various socio-economic characteristics of the population (Topic 6). Full definitions and the DATAPAC code numbers for all variables included in the 1981 Census files are listed in Appendix 2.

TABLE 5. Topics in the 1981 census selected SAS files

OPCS SAS TABLE NUMBER	SUBJECT AREA	DATAPAC CODE NUMBER FOR VARIABLE
1.	DEMOGRAPHIC CHARACTERISTICS	
1,2	Population by sex and age	B230-292
2.	PLACE OF BIRTH CHARACTERISTICS	
4	Country of birth group by sex	B293-352
3.	ECONOMIC CHARACTERISTICS	
9	Economic activity by age and sex	B353-382
9	Unemployment by age and sex	B383-411
22	Economic activity by children in household	B412-417
22	Unemployment by children in household	B418-423
27	Single parents with dependent children	B424-429
4.	HOUSING AND AMENITIES	
10	Amenities and overcrowding by tenure	B430-451
12	Car ownership	B455-457
	Amenities, overcrowding and car ownership for households:	
28	not in self-contained accommodation by size	B458-481
31	with dependent children	B482-488
31	with 3 or more dependent children	B489-495
31	with 1 or more pensioners	B496-502
32	with single male pensioners 65-74	B503-509
32	with single male pensioners 75+	B517-523
32	with single female pensioners 60-74	B524-530
32	with single female pensioners 75+	B531-537
32	with 2 or more pensioners all <75	B538-544
32	with 2 or more pensioners all 75+	B545-551
36	with resident heads born in NCWP	B552-558
5.	HOUSEHOLD COMPOSITION	
13	Households by rooms by tenure	B559-576
15	Households by persons by tenure	B577-616
29	Single pensioner households by tenure	B617-622
29	All types of pensioner households by tenure	B623-628
29	Pensioners in selected age groups by tenure	B629-640
29	Children in selected age groups by tenure	B641-652
6.	SOCIO-ECONOMIC CHARACTERISTICS	
50	Socioeconomic groups 1-17	B653-669
52	Social class groups	B670-676
48	Qualifications	B677-681

2.7 The types of measures available in the system

All the census variables and a selection of the variables on health have been stored in four types of data file representing four forms of measurement. The data which are produced can be defined as follows.

(1) RAW DATA - the total numbers for each variable in each ward and for Leeds Metropolitan District.
(2) RATIO DATA - the total numbers for each variable in each ward and for Leeds Metropolitan District (M.D.) expressed as rates per 10,000 denominator.
(3) CONCENTRATION DATA - the total number for each variable in each ward (and for Leeds M.D.) expressed as a percentage of the total for Leeds Metropolitan District.
(4) LOCATION QUOTIENT DATA - the rates per 10,000 denominator for each variable in each ward (and for Leeds M.D.) expressed as a percentage of the ratios per 10,000 denominator for Leeds Metropolitan District.

In the comparable 1971-81 census files, three measures for each variable have been included for each form of measurement. For a given variable these are the 1971 value (prefixed 'A'), the 1981 value (prefixed 'B') and the 1971-81 change percentage (prefixed 'C'). Hence in the raw data files (file code 1) items prefixed by the letter 'A' record total numbers for 1971, those prefixed by 'B' the total numbers for 1981 and those prefixed by 'C' express the absolute number for 1981 as a percentage of the 1971 count for the variable concerned. Similarly, in the ratio files (file code 2) variables coded 'A' represent ratios for 1971, the 'B' variables ratios for 1981 and the 'C' variables express the 1981 ratios as a percentage of the 1971 ratio values. The same format has been adopted for the concentration data (file code 3) and the location quotients (file code 4).

Each form of measurement has its use. Information on total numbers provides a necessary framework for the examination of processed statistics. The ratio information can be used to study the manifestation of a given phenomenon in its wider context. For example, variations in the incidence of unemployment in relation to the distribution of the economically active population can be examined. From the concentration data it is possible to determine the extent to which characteristics are concentrated in a single ward or group of wards. The location quotients, on the other hand, provide an opportunity to assess the degree of under-representation or over-representation of a given variable in an area or group of areas. For example,

A location quotient of 200 was recorded in Harehills Ward for total unemployment in 1981 indicating that this ward had twice its 'fair share' of unemployment compared with Leeds as a whole.

The change indices, which measure differences between the 1971 and 1981 values, can show growth or decline in absolute terms from the raw data, increasing or decreasing levels of concentration from the 'concentration' files and inter-censal variations in the ward-level representation of characteristics from the location quotient file. Moreover, changes in the distribution of characteristics in relation to their populations can be identified from the 'C' prefixed variables in the ratio files.

The four forms of measurement described above have also been adopted for the 1981 Census information although only 'B'-prefixed variables are represented. These are in a numerical sequence which carries on from the last item recorded for 1981 in the comparable SAS files and commence at B230 running through to B600.

To summarize, a list of all census files available on the system appears in Table 2. The filenames on the left hand side are the names given to the SPSSX System Files housing the data. These names must be spelled out in full to the computer should the user wish to run his own SPSSX programs with the available information. This is unnecessary if information is requested through DATAPAC in which case the entry of a code number in the range 1 to 16 is all that is required to identify the appropriate file (see Section 5).

Four files have also been produced from the information on births to represent each form of measure discussed so far. A description of these and the other vital statistics files follows.

3. INFORMATION ON VITAL STATISTICS FOR 1978-80

3.1 Information sources and types of data

A series of 7 ward-level data files have been produced from computer records of birth and death certificates covering several years for the Leeds Metropolitan District. The raw data, which was supplied on magnetic tape to the University by the former Leeds Area Health Authority includes some 33 items from over 26,000 birth certificates covering a three year period from 1978 to 1980. The items include entries for mother's date of birth, the number of previous live births, stillbirths and abortions, both mother's and father's birthplace, father's occupation, legitimacy, birthweight and gestation period.

A further 23 variables were also made available from the death certificates for the 320 infant deaths (deaths within the first year of life) which occurred over the same period. This information includes age at death (derived from date of birth), usual place of residence and the direct and underlying cause of death in the form of International Classification of Disease (ICD) codes.

The presence of a Unique Property Reference Number (UPRN) on all records enabled death certificates for infant deaths to be linked with their corresponding birth certificates thereby producing a wealth of information on infant mortality in Leeds.

Computerised information on general mortality (that is deaths at all ages) was also supplied but this was available for 1978 only during which some 9,000 deaths had occurred in Leeds Metropolitan District. These records contain causes of death and also information on sex, age at death, occupation and place of residence.

An assortment of spatial codes had been generated by the Area Health Authority from the addresses recorded on each birth and death certificate. The areal identifiers included Unique Property Reference Numbers (a four-part coded form of the address), grid references (of 100 metre square and 1 kilometre square resolution), post codes and the electoral ward number (for the 1974 and 1981 boundaries).

Computer files of ward-level information on births and deaths were produced by aggregating the individual records by electoral ward using the Aggregate Subprogram available in SPSSX. A substantial amount of data

processing had to be carried out before this could be achieved. Entries for father's occupation, place of birth and causes of death, which were in the form of coded job descriptions, place names and individual ICD codes had to be grouped into broader categories (for example, social classes, countries of birth, and major cause of death groups) before aggregation could commence.

Father's occupation was broken down into six social class categories (classes I, II, II non-manual, III manual, IV, V, and unclassified) on the basis of the Registrar General's Classification of Occupations (OPCS 1970). The birthplace entries for mothers, fathers and persons having died, were allocated to six groups: a category for those born in the United Kingdom, a grouping for those born in the Irish Republic and four further categories, two for Commonwealth Countries (New and Old Commonwealth), one for all other foreign countries and one for missing data.

Information on the individual's age and on characteristics such as birth weight and mother's parity was also categorised. Five age group categories were constructed for mothers giving birth (for those aged under 20, 20-24, 25-29, 30-35, and 35 and over), five parity groups were created (parities of 0,1,2,3 and 4 or more) and birth weight was divided into five components ranging from very low weights (below 2,500 grammes) through the intermediate levels (2,500-2,999, 3,000-3,499, 3,500-3,999) to very heavy birth weights (of 4,000 grammes and over). Measures of birth weight, mother's age and parity were also stored in their unprocessed form (that is as variables with continuous values) enabling, for example, mean birth weight and average mother's age to be identified for each birth weight category. Similarly, mean birth weight could be examined in each age category or by social class or parent's birthplace.

Mother's age, mother's parity and birth weight variables were treated in the same manner for the information on infant deaths. In this data set there was also age at death which was assigned to one of two periods of infant mortality: neonatal mortality for deaths within the first four weeks of life or post-neonatal mortality for deaths occurring after the first month but within the first year of life.

For general mortality 10 age at death categories were created which were designed to match the age groups used in the official mortality statistics compiled by the Registrar General. These were 0, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74 and 75+. The cause of death codes (ICD codes)

which describe up to 10,000 separate conditions were grouped into 17 general cause of death categories with 99 sub-divisions. This hierarchy was obtained from the major cause groups and principal sub-divisions listed in the contents of the International Classification of Diseases code book (World Health Organisation, 1965, 9th revision).

3.2 The vital statistics data files and selected variables

A set of seven data files was produced from the available information on births and deaths. Four files represent the information on births (one for each form of measurement discussed in Section 2.7), a fifth file houses the raw data for infant deaths and the two remaining files contain variables on general mortality for the Leeds population in 1978. A list of file definitions along with their SPSSX names appears in Table 2.

All the files contain information which has been aggregated to ward level. The data on births and infant deaths have been generated from records for three years (for 1978-1980) and are products of spatial and temporal aggregations of the original information.

The ward level information on general mortality relates to 1978 only and has been produced as two data sets: one for the 32 Leeds Metropolitan District wards existing in 1974, the other covering the 33 wards in use at the time of the 1981 Census.

The health files vary in their sizes which reflects both the quantity of the information available and the choices made in the selection of variables. The information on births comprise 67 variables, the infant mortality data 48 variables and the general mortality information 342 items for the 1981 wards and 112 variables for the 1974 ward statistics.

Table 6 lists the general topics embraced by the births data set together with the codes which have been assigned to the variables in the SPSSX System Files. All variables are prefixed by the letter 'H' which stands for 'Health Variable' and has been adopted to distinguish the births and deaths data coding from that used for the census information.

The births variables provide information on the distribution of births within the population and on birth weight levels for selected population sub-groups. A full list of definitions for these variables and their code numbers appear in Appendix 3.

TABLE 6. Variable structure for ward level information on births

TOPIC	DATAPAC CODE NUMER OF VARIABLES
1. THE DISTRIBUTION OF BIRTHS WITHIN THE POPULATION	
Total number of births, and births in each sex group	H 1 - H 3
Births by legitimacy	H 4 - H 6
Births by place of confinement	H 7 - H 9
Births by mothers age	H10 - H14
Births by weight category	H15 - H19
Births by father's social class	H20 - H26
Births by mother's country of birth	H27 - H31
Births by father's country of birth	H32 - H36
Births by mother's parity group	H37 - H41
Births by season of birth	H42 - H45
2. MEAN BIRTHWEIGHT BY SELECTED CHARACTERISTICS	
Mean birthweight in grammes (all births)	H46
Mean birthweight by legitimacy	H47 - H48
Mean birthweight by mother's age	H49 - H53
Mean birthweight by father's social class	H54 - H60
Mean birthweight by mother's parity group	H61 - H65
3. MEAN AGE OF MOTHER	
Mean age of mother	H66
4. INFANT DEATHS	
Total number of infant deaths	H67

Information on the distribution of births is extensive and includes counts by father's social class, parent's birthplace, mother's age, mother's parity group, and birth weight category. Mean weight level, recorded in grammes, is given for all births and has also been produced by father's social class, mother's age group, mother's parity and legitimacy status.

As mentioned earlier, the births information has been produced as four data sets representing the four scales of measurement used for the census statistics, namely, raw counts, ratios, concentration percentages and location quotients. The values for the mean birth weight variables are the same in all data files except in the location quotients file where they have been divided by the corresponding Leeds Metropolitan District averages.

Only one file has been produced on infant mortality primarily because of the small number of deaths which occurred over the three year period. The information contained in this file is summarised in Table 7.

The distribution of infant deaths has been recorded for the same population subIgroups as those used for the births information. Consequently, the infant mortality variable definitions appear in Appendix 4.

A single mean birth weight variable is included and this is for all infant deaths since the numbers were too small to produce weight levels for sub-groups of deaths. The file also contains calculated death rates for three periods of infant mortality defined as follows:

RATE 1 - Total Infant Mortality Rate =

$$\frac{\text{Deaths within the first year of life}}{\text{Total Live Births}} \times 1{,}000$$

RATE 2 - Neonatal Mortality Rate =

$$\frac{\text{Deaths within first 28 days of life}}{\text{Total Live Births}} \times 1{,}000$$

RATE 3 - Post-neonatal Mortality Rate =

$$\frac{\text{Deaths after first 28 days and within first year of life}}{\text{Total Live Births}} \times 1{,}000$$

TABLE 7. Variable structure for ward level information on infant mortality (RAW numbers file only)

TOPIC	DATAPAC CODE NUMBER OF VARIABLES
1. THE DISTRIBUTION OF INFANT DEATHS WITHIN THE POPULATION	
Total number of infant deaths	H68
Infant deaths by sex	H69 - H70
Total number of births	H71
Infant deaths by place of confinement	H72 - H74
Infant deaths by mother's age (at birth)	H75 - H79
Infant deaths by birthweight category	H80 - H84
Infant deaths by father's social class	H85 - H91
Infant deaths by mother's country of birth	H92 - H96
Infant deaths by father's country of birth	H97 - H101
Infant deaths by mother's parity group	H102 - H106
Infant deaths by season of birth	H107 - H110
2. BIRTHWEIGHT LEVELS, PERIOD OF INFANT MORTALITY AND INFANT DEATH RATE	
Mean birthweight in grammes (all I deaths)	H111
Neonatal deaths	H112
Post-neonatal deaths	H113
All infant mortality rate	H114
Mean age of mother	H115

Information on cause of infant death has not been included as this is examined more fruitfully at city-wide level because of the small number of cases involved.

Information on general mortality, produced for 1974 and 1981 Leeds Wards, includes information on the sex-age distribution both of the total population and of deaths by selected causes. The arrangement of the general mortality variables in the 1981 Ward file is presented in Table 8.

The initial group of variables (first 39 items) reproduce the sex-age distribution for all deaths (irrespective of cause) and for the total population for the following age categories:

0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74 and 75 +.

The population totals (for the 1981 ward mortality file) have been extracted from the 1981 Population Census.

The remaining variables in the general mortality file relate to the sex-age distribution of deaths by selected cause. Two forms of cause are represented: direct causes of death and underlying causes of death. The direct causes of death describe the disease or condition which led directly to death. The underlying cause is identified as the disease or condition which initiated the train of morbid events leading to death. The latter is not necessarily the same disease or condition which led directly to death but may be so.

In terms of identifying conditions or illnesses which precipitate death the statistics generated from the data on underlying causes are probably of most use. The investigator has a choice since the general mortality file contains information on selected underlying and direct causes of death.

The criterion for selecting which causes of death to include was the number of deaths occurring in each cause group. Causes which accounted for less than 5% of all deaths in Leeds were omitted from the general mortality file because of very small numbers. The selected causes are listed in Sections 2 and 3 of Table 8 along with the ICD codes or group of codes which identify them.

TABLE 8. Variable structure for ward level data on general mortality (1981 wards)

TOPIC		DATAPAC CODE NUMBER
1. SEX-AGE DISTRIBUTION OF DEATHS AND THE TOTAL POPULATION		
Population by sex for 9 age groups (1981 census) and total population		H116 - H135
Deaths by sex for 9 age groups (all causes-1978 data) and total deaths		H136 - H155
2. SEX-AGE DISTRIBUTION OF DEATHS FOR DIRECT CAUSES OF DEATH (9 AGE GROUP CATEGORIES)		
(ICD140-239)	Deaths from neoplasms - all kinds	H156 - H173
(ICD230-239)	Deaths from neoplasms - unspecified	H174 - H191
(ICD390-458)	Deaths from circulatory problems - all kinds	H192 - H209
(ICD410-414)	Deaths from ischaemic heart disease	H210 - H227
(ICD430-438)	Deaths from cerebrovascular disease	H228 - H245
(ICD420-429)	Deaths from heart diseases - miscellaneous	H246 - H263
(ICD460-519)	Deaths from respiratory problems - all kinds	H264 - H281
(ICD480-486)	Deaths from pneumonia	H282 - H299
3. SEX-AGE DISTRIBUTION OF DEATHS FOR UNDERLYING CAUSES OF DEATH		
(ICD140-239)	Deaths from neoplasms - all kinds	H300 - H317
(ICD390-458)	Deaths from circulatory problems - all kinds	H318 - H335
(ICD410-414)	Deaths from ischaemic heart disease	H336 - H353
(ICD430-438)	Deaths from cerebrovascular disease	H354 - H371
(ICD460-519)	Deaths from respiratory problems - all kinds	H372 - H389
(ICD480-486)	Deaths from pneumonia	H390 - H407
(ICD520-577)	Deaths from problems of digestive system - all kinds	H408 - H425
4. STANDARDISED MORTALITY RATIOS (SMRs)		
SMRs by sex for all deaths (all causes)		H426, H427
SMRs for the 8 direct cause of death categories (see 2 above) by sex		H428 - H443
SMRs for the 7 underlying cause of death categories (see 3 above) by sex		H444 - H457

The fourth set of variables in the general mortality file comprises the Standard Mortality Ratios or SMRs. The SMR is defined as the ratio of observed to expected deaths for each category of the population being considered. Thus

$$SMR = 100 \times (\text{observed deaths/expected deaths})$$
$$= (D^i / \sum_a d_a^L P_a^i)$$

where D^i is the observed number of deaths in ward i, d_a^L is the death rate for Leeds for age group a and P_a^i is the population of ward i in age group a.

SMRs for electoral wards in Leeds, for example, show the number of deaths observed for a ward as a percentage of those which one would expect in that ward if its population had experienced the sex-age mortality rates for Leeds as a whole. Any deviation from the city average of 100, therefore, represents a real difference in the number of deaths which have occurred since variations in population age structure have been taken into account.

The SMRs in the 1981 Ward file were computed using population totals from the 1981 Census. SMRs in the 1974 Ward file (details in Table 9) are based on population totals obtained from the 1978 Leeds Population Survey carried out by the City Council (Leeds City Council, 1978).

The statistics in both files include SMRs for all deaths across all age groups by sex and also ratios for males and females aged 35 and over for all leading direct and underlying causes of death (Sections 2 and 3 of Tables 8 and 9). The mortality file for the 1981 wards contains more information than the 1974 ward file which reflects a decision to direct efforts and resources into the creation of data on general mortality which is spatially compatible with the other components of the social information system being developed for Leeds.

Definitions of variables in the 1981 Ward General Mortality File appear in Appendix 5 and those for items in the 1974 ward file are listed in Appendix 6.

TABLE 9. Variable structure for ward-level data on general mortality (1974 wards)

TOPIC	DATAPAC CODE NUMBER
1. SEX-AGE DISTRIBUTION OF DEATHS AND THE TOTAL POPULATION	
Population by sex for 9 age groups (1978 Leeds population survey)	H458 - H477
Deaths by sex for 9 age groups (all causes 1978 data for 1974 wards)	H478 - H497
2. SEX-AGE DISTRIBUTION OF DEATHS FOR DIRECT CAUSES OF DEATH (AGE GROUP CATEGORIES AGES > 35)	
(ICD480-486) Deaths from pneumonia	H498 - H509
3. SEX-AGE DISTRIBUTION OF DEATHS FOR UNDERLYING CAUSES OF DEATH	
(ICD140-239) Deaths from neoplasms - all kinds	H510 - H521
(ICD390-458) Deaths from circulatory problems - all kinds	H522 - H533
(ICD410-414) Deaths from ischaemic heart disease	H534 - H545
(ICD460-519) Deaths from respiratory problems - all kinds	H546 - H557
4. STANDARDISED MORTALITY RATIOS (SMRs)	
SMRs by sex for all deaths - all causes	H558, H559
SMRs by sex for pneumonia - direct cause	H560, H561
SMRs by sex for 4 underlying causes of death (see 3 above)	H562 - H569

4. HOW TO ACCESS INFORMATION THROUGH DATAPAC

4.1 Basic steps: system instructions for the Amdahl computer

The aim of Section 4 is to outline the basic commands needed to run the DATAPAC Program with the aid of several examples. As a first step the user should be registered with the University of Leeds Computing Service and have obtained a user identification for the Amdahl V7 computer. The next step involves 'logging on' to the computer and gaining access to the permanent disk of the geography computer library which houses the DATAPAC Program and all associated data files (see Table 10 for details).

4.2 Running DATAPAC: procedural steps

Once the user is linked to the geography library disk the DATAPAC Program can be invoked by typing the command DATAPAC. The steps which follow are set out in Table 11 and are described in detail below.

On receipt of the command DATAPAC the Program responds by listing the information files which are available together with their code numbers (Table 11, Step 1). The user is then invited to choose one of these data files by typing in the appropriate code number (within the range 1 to 15) at the computer terminal (Step 1). Once this has been done the user is asked whether he would like to see a list of variable definitions on the terminal screen (Step 2). If he wishes to do so the number 1 is entered (Step 2) and the variable definitions (appropriate to the data file requested) are scrolled up 20 at a time. The listing can be terminated by entering a code of 0 at the appropriate point (Step 2A). Where variable listings are not required (code 0 at Step 2) the program proceeds directly to the next question which asks the user to specify the name of the output file (Step 3) which will contain the table or data array produced by the run. The filename only needs to be specified at this point because DATAPAC assigns a file type (that is the second part of the file's identification) of RESULTS to the output it generates. Thus a file name of 'FIRST' entered at Step 3 would produce an output file of 'FIRST RESULTS'. Filenames may not exceed eight characters in length and must be an unbroken string of characters, that is, without any gaps.

At Step 4 the user is asked whether he wishes for the SPSSX instructions file to be saved for further use. This instructions file is written by the DATAPAC Program for the information entered at the terminal and is used to

TABLE 10. How to log on and gain access to the Geography library

---

Step 1. Issue the command LOGON
followed by USERID and password

e.g. LOGON GEO6ABC SECRET

Undergraduates (with userids GEO2XXX or GEO3XXX) are now linked to their small permanent work disks and to the Geography library permanent disk (to them their D disk).

Postgraduates and staff (with userids GEO5XXX or GEO6XXX) issue further commands.

Step 2. Issue the command FILES to obtain a work disk and access to FILESTOR, followed by 'RETURN' to exit from FILESTOR.

e.g. FILES
'RETURN' (i.e. press 'RETURN' or 'ENTER' key)

Step 3. Link to the library and obtain access to the library permanent disk from your work disk thus:

LINK GEO6LIB 191 195 RR

ACCESS 195 B/A

TABLE II. DATAPAC program steps

Step	DATAPAC program steps	Table output: All wards Example 1	Table output: Selected wards Example 2	Array output: All wards Example 3	Array output: Selected wards Example 4
1	List of 15 files from which to choose. Prompt for choice. User enters file code number	2	1	4	4
2	Prompt for listing of variable definitions for requested file. User enters 1 (yes) or 0 (no)	0	1	0	0
2A	Prompt for terminating list of variable definitions (every 20). User enters 1 (continue) or 0 (stop)	-	0	-	-
3	Prompt for name of output file for table or array. This will have a filetype of 'RESULTS'	FIRST	SECOND	THIRD	FOURTH
4	Prompt for program to save the SPSSX instructions. User enters 1 (yes) or 0 (no)	1	0	0	0
4A	Prompt for the file name for the SPSSX instructions. User enters file name	RUN1	-	-	-
5	Prompt for the spatial coverage. User enters 1 (all wards in Leeds) or 0 (selected wards)	1	0	1	0
6	Prompt for the choice of output. User enters 1 (table output) or 0 (data array)	1	1	0	0
6A*	Prompt for changing order of wards in Table 1 (change ward order) or 0 (leave at default)	0	-	-	-
7	Prompt for the number of variables needed (max.10). User enters a number (1-10)	2	3	4	4
7A	Prompt for table title (up to 80 characters). User enters a title	TABLE 1	TABLE 2	-	-
7B	Prompt for a column heading (up to 9 characters) for each variable. User enters column headings 1	NOCAR71 NOCAR81	POP71 POP81 71-81DIF	-	-
8	Prompt for DATAPAC code number for each variable. User enters code for each variable	A138 B138	A1 B1 C1 C1	A224 A225 A226 A227	A224 A225 A226 A227
8A	Prompt for number of wards required. User enters a number (1 to 33)	-	4	-	5
8B	Prompt for code number of each ward. User enters ward code number(s)	-	———	-	———

Notes:

*If a change in the ordering of the wards is requested (entry of 1 at Step 6A) the following prompts are issued: STEP 6B - the user is invited to choose one of four ward ordering options: (1) ascending deprivation order; (2) alphabetical order; (3) ascending order of any user-specified variable; (4) descending order of any user-specified variable. STEP 6C - the user specifies the variable on which the wards are to be sorted in ascending or descending order of.

- Step is skipped - Processing ends

extract data from SPSSX System Files to produce tables or matrices. If the instructions file is saved it can be edited and re-run as an SPSSX job without the need to go through DATAPAC. This mode of operation might prove beneficial to users with experience of running SPSSX jobs to perform data manipulations or produce statistical output (see Section 3.4).

The user indicates that he wishes to save the SPSSX instructions by entering 1 to Step 4. The filename for the instructions then needs to be specified (Step 4A), the filetype of SPSSX having been assigned by the Program. If the response is negative (entry of 0 to Step 4) the default procedure is obeyed and the SPSSX instructions are erased at the end of the run.

The next step (Step 5) requests the user to state whether or not information is required for all the wards in Leeds. The answer to this question (1 for yes or 0 for no) is stored by the program for later execution. At Step 6, the choice is made between the production of a table or a data array. Once again, the response to the question which is asked (in this case the entry of code 1 for a table and code 0 for an array) is stored and referred to later.

The number of variables the user wishes to examine (either in tabular or data array format) is entered in Step 7. No more than 10 variables may be requested on a single run and the user is reminded of this in the question which is posed. Beyond this point, prompts and questions vary according to whether tables or data matrices have been requested and to whether these are for all wards in Leeds or a selection of wards.

4.3 Table production

4.3.1 Tables for all wards in Leeds (Example 1)

The column headed "Example 1" in Table 11 gives an illustration of how to obtain tables for all wards in Leeds and Figure 3 presents the specimen computer run.

If information is required for all the wards in Leeds (entry of 1 at Step 5) and a table is requested (entry of 1 at Step 6), the following steps are executed:

STEP 6A. The user is asked whether he wishes to change the order of the Wards in his table. An entry of 1 indicates that a change is required and is followed by further instructions. An entry of 0 is a request to leave the

```
DATAPAC
EXECUTION BEGINS...

You have the following choice of Data Files:

CODE=1  Comparable 1971 and 1981 Census Statistics COUNT DATA
CODE=2  Comparable 1971 and 1981 Census Statistics RATIO DATA
CODE=3  Comparable 1971 and 1981 Census Statistics CONCENTRATION DATA
CODE=4  Comparable 1971 and 1981 Census Statistics LEEDS LOCATION QUOTIENTS
CODE=5  Census Variables for 1981 only  COUNTS
CODE=6  Census Variables for 1981 only RATIOS
CODE=7  Census Variables for 1981 only CONCENTRATIONS
CODE=8  Census Variables for 1981 only LEEDS LOCATION QUOTIENTS
CODE=9  Selected Birth Statistics 1978-80 Aggregations COUNTS
CODE=10  Selected Birth Statistics 1978-80 Aggregations RATIOS
CODE=11  Selected Birth Statistics 1978-80 Aggregations CONCENTRATIONS
CODE=12  Selected Birth Statistics 1978-80 LEEDS LOCATION QUOTIENTS
CODE=13  Selected Mortality Statistics COUNTS
CODE=14  Selected General Mortality Statistics 1981 WARDS
CODE=15  Selected General Mortality Statistics 1974 WARDS

Please Enter Appropriate CODE NUMBER for the FILE you desire

                                                or ENTER 999 to EXIT from DO

?
2
Do You want to see a list of VARIABLE DEFINITIONS for your file of Comparal
                                                1971-81 Census Statistic
Enter 1 for YES
Enter 0 for NO

?
0

Please specify the FILENAME of your output file.
This will have a FILETYPE of 'RESULTS'

FIRST

Do you want the SPSSx Instructions File to be retained after the Computer

Answer 1 for YES
Answer 0 for NO

                                                or ENTER 999 to EXIT from DA

?
1
Specify the File Name (upto 8 characters) for the Instuctions file.
This will be of type SPSSX

RUN1
Do you require data for all 33 WARDS in Leeds ?

Enter 1 for YES
Enter 0 for NO

                                                or ENTER 999 to EXIT from DA

?
1
```

FIGURE 3. Specimen computer run for example 1: table output for all wards

```
Do you want a TABLE or DATA MATRIX   ?

Enter 1 for TABLE
Enter 0 for DATA  MATRIX

                                                    or ENTER 999 to EXIT from DATAPAC
?
1
Do you wish to alter the default order of LEEDS WARDS in your table ?

NB The default is for Wards to be arranged in descending order of DEPRIVATION level)

Enter 1 for YES
Enter 0 for NO   (That is leave the WARDS in  "Deprivation" order)

?
0
How many variables do you require ? Enter Number 1 to 10

?
2
Enter a Title for your Table.   [ Upto 80 Characters]

TABLE NO.1

Enter Column Heading for FIRST Variable in your Table

NO CAR 71

Enter Column Heading for SECOND Variable in your Table

NO CAR 81

N.B. THIS IS A REQUEST FOR DATAPAC VARIABLE CODES. ENTER THEM CAREFULLY !

Enter Appropriate CODE for FIRST Variable

 A13B

 Enter Appropriate CODE for SECOND Variable

 B13B

 Your SPSSX Instructions will be in file RUN1

 The SPSSx Report of this DATAPAC run is in "DATAPAC LISTING"

 Your OUTPUT  will be in file FIRST    RESULTS

 EXECUTION BEGINS ..................

 END OF  JOB:     35 COMMAND LINES      0 ERRORS      0 WARNINGS      0 CPU SECONDS

 THE DATAPAC RUN ENDS

 R; T=0.79/1.33 18:18:15
```

FIGURE 3. Continued

```
TY RUN1 SPSSX

TITLE SPSSX VARIABLE EXTRACTION
FILE HANDLE LEEDSRAT NAME= 'LEEDSRAT SPSSXFIL B'
FILE HANDLE FIRST    NAME='FIRST    RESULTS A'
GET FILE=LEEDSRAT
DO IF $CASENUM EQ 1
PRINT OUTFILE=FIRST   /'TABLE NO.1                              '
 '                                    '/ TL /
END IF
DO IF $CASENUM EQ 1
PRINT OUTFILE=FIRST   / TA LA LA (A13,2A11)
END IF
DO IF $CASENUM EQ 1
PRINT OUTFILE=FIRST   / LW 'NO CAR 71'   '   NO CAR 81'/T L L (A13,2A11)
END IF
DO IF $CASENUM GE 1 AND $CASENUM LT 12
PRINT OUTFILE=FIRST   / WN Q A138    Q B138    Q  (A12,A1,2(2X,F6.0,2X,A1))
END IF
DO IF $CASENUM EQ 12
PRINT OUTFILE=FIRST   / CHAR
END IF
DO IF $CASENUM GE 12 AND $CASENUM LT 23
PRINT OUTFILE=FIRST   / WN Q A138    Q B138    Q  (A12,A1,2(2X,F6.0,2X,A1))
END IF
DO IF $CASENUM EQ 23
PRINT OUTFILE=FIRST   / CHAR
END IF
DO IF $CASENUM GE 23 AND $CASENUM LT 34
PRINT OUTFILE=FIRST   / WN Q A138    Q B138    Q  (A12,A1,2(2X,F6.0,2X,A1))
END IF
DO IF $CASENUM EQ 34
PRINT OUTFILE=FIRST   / TD LD LD (A13,2A11)
PRINT OUTFILE=FIRST   / WN Q A138    Q B138    Q  (A12,A1,2(2X,F6.0,2X,A1))
PRINT OUTFILE=FIRST   / T L L (A13,2A11)
END IF
EXECUTE
```

FIGURE 3. Continued

```
TYPE FIRST RESULTS

TABLE NO.1
```

LEEDS WARD	NO CAR 71	NO CAR 81
UNIVERSITY	8110	7566
HAREHILLS	7340	6567
CITY & HOLB	8030	7128
CHAPEL ALL	6870	5961
RICHMND HILL	7860	6942
HUNSLET	7769	7213
HEADINGLEY	6890	5865
BURMANTOFTS	7690	6941
SEACROFT	7120	6305
KIRKSTALL	7020	6241
MIDDLETON	6860	5916
ARMLEY	6920	5907
BRAMLEY	6860	5891
BEESTON	6499	5801
MORLEY SOUTH	6010	4617
WORTLEY	6260	5100
WEETWOOD	4980	4353
PUDSEY SOUTH	5600	4637
WHINMOOR	5401	4514
ROTHWELL	5080	3883
MORLEY NORTH	5191	3749
BARWICK	4550	3315
AIREBOROUGH	4710	3540
PUDSEY NORTH	4640	3537
OTLEY	4270	3359
MOORTOWN	4261	3838
MORSFORTH	4080	3181
COOKRIDGE	3329	3031
GARFORTH	3979	2974
NORTH	3510	2899
ROUNDHAY	3270	2543
HALTON	3830	3084
WETHERBY	3190	2313
LEEDS M.D.	5845	4797

```
R; T=0.01/0.09 15:11:23
```

FIGURE 3. Continued

Wards in descending order of deprivation intensity.

STEP 7. The user is asked to state the number of variables required. A meximum of 10 variables may be specified on a single run.

STEP 7A. The user is asked to specify a title for his table of up to 50 characters in length.

STEP 7B. The user is asked to specify a column heading of up to 9 characters for each of the variables in his table (the number of which was specified at Step 7 and cannot exceed 10).

STEP 8. The user is asked to specify the code numbers for each variable to be included in the table. Codes contain up to 4 characters and are prefixed by either A, B, C or H depending on the information file accessed.

At this point (Step 8) the instructions are complete and the program is run. A table will be produced for up to 10 variables giving information for all wards in Leeds plus data for the Leeds Metropolitan District which will appear at the bottom of the table.

4.3.2 Tables for selected wards in Leeds (Example 2)

A full example of the steps taken in this situation appears in Table 11 (Example 2) and a specimen Computer Run is presented in Figure 4.

In this situation, a request not to supply information for all the wards would have to be made (entry of 0 at Step 5) and a choice of table production specified to the Program (entry of 1 at Step 6). The steps beyond Step 7 would be as follows:

STEP 7A - procedure as for tables including all wards.
STEP 7B - procedure as for tables including all wards.
STEP 8 - procedure as for tables including all wards.

plus

STEP 8A - the user is asked how many wards he wishes to examine and replies by entering a number from 1 to 33.

STEP 8B - the user is asked to enter the code numbers for as many wards as he specified in Step 8A.

```
DATAPAC
EXECUTION BEGINS...

You have the following choice of Data Files:

CODE=1  Comparable 1971 and 1981 Census Statistics COUNT DATA
CODE=2  Comparable 1971 and 1981 Census Statistics RATIO DATA
CODE=3  Comparable 1971 and 1981 Census Statistics CONCENTRATION DATA
CODE=4  Comparable 1971 and 1981 Census Statistics LEEDS LOCATION QUOTIENTS
CODE=5  Census Variables for 1981 only  COUNTS
CODE=6  Census Variables for 1981 only RATIOS
CODE=7  Census Variables for 1981 only CONCENTRATIONS
CODE=8  Census Variables for 1981 only LEEDS LOCATION QUOTIENTS
CODE=9  Selected Birth Statistics 1978-80 Aggregations COUNTS
CODE=10  Selected Birth Statistics 1978-80 Aggregations RATIOS
CODE=11  Selected Birth Statistics 1978-80 Aggregations CONCENTRATIONS
CODE=12  Selected Birth Statistics 1978-80 LEEDS LOCATION QUOTIENTS
CODE=13  Selected Mortality Statistics COUNTS
CODE=14  Selected General Mortality Statistics 1981 WARDS
CODE=15  Selected General Mortality Statistics 1974 WARDS

Please Enter Appropriate CODE NUMBER for the FILE you desire

                                                or ENTER 999 to EXIT from DATAPAC

?
:
Do You want to see a list of VARIABLE DEFINITIONS for your file of Comparable
                                                        1971-81 Census Statistics ?
Enter 1 for YES
Enter 0 for NO

?

                [ A,B,C ]    1, TOTAL POPULATION PRESENT          /
                [ A,B,C ]    2, PERSONS IN PRIVATE HOUSEHOLDS     /
                [ A,B,C ]    3, PERSONS NOT IN PRIVATE HOUSEHOLDS /
                [ A,B,C ]    4, TOTAL RESIDENTS                   /
                [ A,B,C ]    5, PERSONS AGED  0-4                 /
                [ A,B,C ]    6, PERSONS AGED  5-9                 /
                [ A,B,C ]    7, PERSONS AGED  10-14               /
                [ A,B,C ]    8, PERSONS AGED  15                  /
                [ A,B,C ]    9, PERSONS AGED  16-19               /
                [ A,B,C ]   10, PERSONS AGED  20-24               /
                [ A,B,C ]   11, PERSONS AGED  25-29               /
                [ A,B,C ]   12, PERSONS AGED  30-34               /
                [ A,B,C ]   13, PERSONS AGED  35-39               /
                [ A,B,C ]   14, PERSONS AGED  40-44               /
                [ A,B,C ]   15, PERSONS AGED  45-49               /
                [ A,B,C ]   16, PERSONS AGED  50-54               /
                [ A,B,C ]   17, PERSONS AGED  55-59               /
                [ A,B,C ]   18, PERSONS AGED  60-64               /
                [ A,B,C ]   19, PERSONS AGED  65-69               /
                [ A,B,C ]   20, PERSONS AGED  70-74               /
```

FIGURE 4. Specimen computer run for example 2: table output for selected wards

```
MORE ?              Enter 1 for YES or 0 for NO
?
0
Do you want the Definitions to be repeated ?
Enter 1 f or YES
Enter 0 fo NO

?
0

Please specify the FILENAME of your output file.
This will have a FILETYPE of 'RESULTS'

SECOND

Do you want the SPSSx Instructions File to be retained after the Computer Run ?

Answer 1 for YES
Answer 0 for NO

                                                    or ENTER 999 to EXIT from DATAPAC

?
0
Do you require data for all 33 WARDS in Leeds ?

Enter 1 for YES
Enter 0 for NO

                                                    or ENTER 999 to EXIT from DATAPAC

?
0
Do you want a TABLE or DATA MATRIX   ?

Enter 1 for TABLE
Enter 0 for DATA  MATRIX

                                                    or ENTER 999 to EXIT from DATAPAC

?
1
How many variables do you require ? Enter Number 1 to 10

                                                    or ENTER 999 to EXIT from DATAPAC

?
2
Enter a Title for your Table.   [ Upto 80 Characters]

TABLE NO.2

Enter Column Heading for FIRST Variable in your Table
```

FIGURE 4. Continued

```
POP 71
Enter Column Heading for SECOND Variable in your Table
POP 81
Enter Column Heading for THIRD Variable in your Table
71-81 DIFF

-------------------------------------------------------------------------------
N.B. THIS IS A REQUEST FOR DATAPAC VARIABLE CODES. ENTER THEM CAREFULLY !
-------------------------------------------------------------------------------
Enter Appropriate CODE for FIRST Variable
A1
Enter Appropriate CODE for SECOND Variable
B1
Enter Appropriate CODE for THIRD Variable
C1

-------------------------------------------------------------------------------
N.B. THIS IS A REQUEST FOR THE NUMBER OF ZONES FOR WHICH DATA IS TO BE SUPPLIE
-------------------------------------------------------------------------------
Now how many WARDS do you wish to examine ?
                                        or ENTER 999 to EXIT from DATAPA
4
Enter their Code Numbers
1
2
3
4
The SPSSx Report of this DATAPAC run is in "DATAPAC LISTING"
```

FIGURE 4. Continued

```
Your OUTPUT  will be in file SECOND    RESULTS

EXECUTION BEGINS .....................

END OF JOB:     38 COMMAND LINES      0 ERRORS      0 WARNINGS      0 CPU SECONDS

FILE 'DATAPAC LISTING A' ALREADY EXISTS.
THE DATAPAC RUN ENDS
R; T=0.81/1.44 15:27:18

 FILE: SECOND    RESULTS  A    LEEDS UNIVERSITY VM/SP 2.05

 TABLE NO.2
```

LEEDS WARD	POP 71	POP 81	71-81 DIF
ARMLEY	29555	23763	80
BEESTON	15929	17675	111
BARWICK	19588	21868	112
AIREBOROUGH	23518	25171	107
LEEDS M.D.	738971	704885	95

FIGURE 4. Continued

At this point (Step 8A) the instructions are complete and the program run commences. A fully labelled table will be produced for up to 10 variables containing a selection of wards in an order determined by the user.

4.4 Matrix production

4.4.1 Data arrays for all wards in Leeds (Example 3)

A full example of the steps to be taken in this case are outlined in Table 11 (Example 3) and the specimen computer run is presented in Figure 5. For this request data for all wards in Leeds would have been specified (entry of 1 at Step 5) and the production of a data matrix ordered (entry of 0 at Step 6). All the procedures up to and including Step 7 would be executed and then the following.

STEP 8. The user is asked to specify the code numbers for each variable to be included in his data array. Codes contain up to 4 characters and are prefixed by either A, B, C or H depending on the information file accessed.

At this point (Step 8) the program instructions are complete and the run begins. A data array will be produced with up to 6 variables for all the wards in Leeds PLUS data for Leeds M.D. which will form the last record of the array.

4.4.2 Data arrays for selected wards in Leeds (Example 4)

The specimen computer run for this example is given in Figure 6. In this situation a request not to have information for all the wards would have been made (entry of 0 at Step 5) and the production of a data matrix ordered (entry of 0 at Step 6). All the procedures up to and including Step 9 would have been executed plus the following.

STEP 8. Procedure as in matrix production for all wards (5.4.1 above).

STEP 8A. The user is asked how many wards he wishes to examine and replies by entering a number from 1 to 33.

STEP 8B. The user is asked to enter the code numbers for as many wards as he specified in Step 8A.

At Step 8B the instructions are complete and the program is run. A data array is produced with up to 10 variables for a selection of wards determined and ordered by the user but WITHOUT any information for the Leeds Metropolitan District.

```
DATAPAC
EXECUTION BEGINS...

You have the following choice of Data Files:

CODE=1  Comparable 1971 and 1981 Census Statistics COUNT DATA
CODE=2  Comparable 1971 and 1981 Census Statistics RATIO DATA
CODE=3  Comparable 1971 and 1981 Census Statistics CONCENTRATION DATA
CODE=4  Comparable 1971 and 1981 Census Statistics LEEDS LOCATION QUOTIENTS
CODE=5  Census Variables for 1981 only  COUNTS
CODE=6  Census Variables for 1981 only RATIOS
CODE=7  Census Variables for 1981 only CONCENTRATIONS
CODE=8  Census Variables for 1981 only LEEDS LOCATION QUOTIENTS
CODE=9  Selected Birth Statistics 1978-80 Aggregations COUNTS
CODE=10  Selected Birth Statistics 1978-80 Aggregations RATIOS
CODE=11  Selected Birth Statistics 1978-80 Aggregations CONCENTRATIONS
CODE=12  Selected Birth Statistics 1978-80 LEEDS LOCATION QUOTIENTS
CODE=13  Selected Mortality Statistics COUNTS
CODE=14  Selected General Mortality Statistics 1981 WARDS
CODE=15  Selected General Mortality Statistics 1974 WARDS

Please Enter Appropriate CODE NUMBER for the FILE you desire

                                                or ENTER 999 to EXIT from DATAPAC

?
4
Do You want to see a list of VARIABLE DEFINITIONS for your file of Comparable
                                                1971-81 Census Statistics ?
Enter 1 for YES
Enter 0 for NO

?
0

Please specify the FILENAME of your output file.
This will have a FILETYPE of "RESULTS"

THIRD

Do you want the SPSSx Instructions File to be retained after the Computer Run ?

Answer 1 for YES
Answer 0 for NO

                                                or ENTER 999 to EXIT from DATAPAC

?
0
Do you require data for all 33 WARDS in Leeds ?

Enter 1 for YES
Enter 0 for NO
```

FIGURE 5. Specimen computer run for example 3: matrix output for selected wards

```
                                                    or ENTER 999 to EXIT from DATAP
?
1
Do you want a TABLE or DATA MATRIX   ?

Enter 1 for TABLE
Enter 0 for DATA  MATRIX

                                                    or ENTER 999 to EXIT from DATAP
?
0
How many variables do you require ? Enter Number 1 to 10

?
4

================================================================================

N.B. THIS IS A REQUEST FOR DATAPAC VARIABLE CODES. ENTER THEM CAREFULLY !

================================================================================

Enter Appropriate CODE for FIRST Variable

A224

Enter Appropriate CODE for SECOND Variable

A225

Enter Appropriate CODE for THIRD Variable

A226

Enter Appropriate CODE for FOURTH Variable

A227

The SPSSx Report of this DATAPAC run is in "DATAPAC LISTING"

Your OUTPUT  will be in file THIRD    RESULTS

EXECUTION BEGINS ..................

END OF JOB:     7 COMMAND LINES     0 ERRORS     0 WARNINGS     0 CPU SECONDS

FILE 'DATAPAC LISTING A' ALREADY EXISTS.
--- --- --- --- --- --- --- --- --- ---
-------  -------  -------
THE DATAPAC RUN ENDS
-------  -------  -------
--- --- --- --- --- --- --- --- --- ---
R; T=0.64/1.14 15:30:49
```

FIGURE 5. Continued

```
TYPE THIRD RESULTS

      39     76    118    141
      53     83    110    147
      39     71    118    154
      79     88    106    126
      38     75    125    112
      34     71    133     91
     109    121     80    128
      41     66    126    128
      43     86    118    109
      57     96    110    108
      41     78    133     68
      60     93    121     62
      56     77    127     77
      72    102    111     75
      83     75    113    122
      58     93    113    102
     158    126     75     90
     103    105    106     56
      96    113     94     97
     100    106    112     32
      89    103    106     73
     124     90    102     91
     114     97     96    111
     132    126     84     73
     159    109     79    116
     203    139     50    123
     174    129     67    102
     193    130     67     78
     113    118     93     72
     225    132     58     82
     252    153     36    103
     141    145     69     85
     220    102     75     86
     100    100    100    100

R; T=0.01/0.07 15:31:15
```

FIGURE 5. Continued

```
DATAPAC
EXECUTION BEGINS...

You have the following choice of Data Files:

CODE=1  Comparable 1971 and 1981 Census Statistics COUNT DATA
CODE=2  Comparable 1971 and 1981 Census Statistics RATIO DATA
CODE=3  Comparable 1971 and 1981 Census Statistics CONCENTRATION DATA
CODE=4  Comparable 1971 and 1981 Census Statistics LEEDS LOCATION QUOTIENTS
CODE=5  Census Variables for 1981 only  COUNTS
CODE=6  Census Variables for 1981 only RATIOS
CODE=7  Census Variables for 1981 only CONCENTRATIONS
CODE=8  Census Variables for 1981 only LEEDS LOCATION QUOTIENTS
CODE=9  Selected Birth Statistics 1978-80 Aggregations COUNTS
CODE=10  Selected Birth Statistics 1978-80 Aggregations RATIOS
CODE=11  Selected Birth Statistics 1978-80 Aggregations CONCENTRATIONS
CODE=12  Selected Birth Statistics 1978-80 LEEDS LOCATION QUOTIENTS
CODE=13  Selected Mortality Statistics COUNTS
CODE=14  Selected General Mortality Statistics 1981 WARDS
CODE=15  Selected General Mortality Statistics 1974 WARDS

Please Enter Appropriate CODE NUMBER for the FILE you desire

                                                or ENTER 999 to EXIT from DATAP

?
4
Do You want to see a list of VARIABLE DEFINITIONS for your file of Comparable

Enter 1 for YES                                          1971-81 Census Statistics ?
Enter 0 for NO

?
0

Please specify the FILENAME of your output file.
This will have a FILETYPE of 'RESULTS'

FOURTH

Do you want the SPSSx Instructions File to be retained after the Computer Run

Answer 1 for YES
Answer 0 for NO

                                                or ENTER 999 to EXIT from DATAP

?
Do you require data for all 33 WARDS in Leeds ?

Enter 1 for YES
Enter 0 for NO

                                                or ENTER 999 to EXIT from DATAP

?
Do you want a TABLE or DATA MATRIX   ?

Enter 1 for TABLE
Enter 0 for DATA  MATRIX

                                                or ENTER 999 to EXIT from DATAP

?
0
```

FIGURE 6. Specimen computer run for example 4: matrix output for selected wards

```
How many variables do you require ? Enter Number 1 to 10
3
4

-------------------------------------------------------------------------------

V.B. THIS IS A REQUEST FOR DATAPAC VARIABLE CODES. ENTER THEM CAREFULLY !

-------------------------------------------------------------------------------

Enter Appropriate CODE for FIRST Variable

A224

Enter Appropriate CODE for SECOND Variable

A225

Enter Appropriate CODE for THIRD Variable

A226

Enter Appropriate CODE for FOURTH Variable

A227

-------------------------------------------------------------------------------

V.B. THIS IS A REQUEST FOR THE NUMBER OF ZONES FOR WHICH DATA IS TO BE SUPPLIED

-------------------------------------------------------------------------------

Now how many WARDS do you wish to examine ?
5

Enter their Code Numbers

2
3
5
4
6
3
2
1

The SPSSx Report of this DATAPAC run is in "DATAPAC LISTING"

Your OUTPUT will be in file FOURTH   RESULTS

EXECUTION BEGINS ...................

END OF JOB:     25 COMMAND LINES      0 ERRORS      0 WARNINGS      0 CPU SECONDS

FILE 'DATAPAC LISTING A' ALREADY EXISTS.

TYPE FOURTH RESULTS

   60    93   121    62
   56    77   127    77
   72   102   111    75
  124    90   102    91
  114    97    96   111

THE DATAPAC RUN ENDS

R; T=0.70/1.26 15:35:09

R; T=0.01/0.02 15:35:44
```

FIGURE 6. Continued

4.5 Alternative applications : running SPSSX programs

All SPSSX system files mounted on the b disk of the Geography Program and Data Library (GEO6LIB) may be accessed directly by the user for processing or statistical analysis. The user links up to the b disk of GEO6LIB as in the procedure for a 'DATAPAC' run and then runs his own SPSSX job having created a set of SPSSX instructions using the editor. The process is best illustrated through an example.

Let us suppose the user wishes to obtain a set of descriptive statistics for a group of Census variables and then compute a series of correlation co-efficients between them. The first step would be to create a set of SPSSX instructions having consulted the SPSSX User's Guide (SPSSX Incorporated, 1983). A list of such instructions (called RUN1 SPSSX) appears in Figure 7. The 'DATAPAC' file selected for the statistical descriptions and correlation analysis is the set of 1971-81 comparable Census ratio variables housed in LEEDSRAT SPSSXFIL on the b disk or 'LEEDSRAT SPSSXFIL B'. It is essential that the filename, filetype and filemode (ie. the disk location 'b') are all specified in the SPSSX 'File Handle' command which identifies the input files (see SPSSX User's Guide). The 'GET FILE' command comes next (specifying the filename of the SPSSX system file) and is followed by an area selection parameter 'SELECT IF WARD NE 34' which excludes from the analysis aggregated statistics for Leeds at a whole (the 34th case in the file), allowing any information to be processed for the 33 Census wards only. In all cases the Leeds M.D. can be identified for inclusion or exclusion as Ward No. 34.

The SPSSX procedures which follow (CONDESCRIPTIVE, for producing descriptive statistics and PEARSON CORR for a Pearson Product Moment Correlation analysis) are described in detail in the SPSSX User's Guide which the user should consult. This short SPSSX program terminates with an 'EXECUTE' command which must always be included.

To run this program the user takes the following steps:

1. Logon to the Amdahl computer and link to the Geography Library b-disk if post-graduate or a member of staff), by typing

```
LINK GEOGLIB 191 195 RR
ACCESS 195 B/A
```

2. Then simply enter the instructions

```
SPSSX  RUN1
```

(N.B. the SPSSX instructions must always be of filetype SPSSX)

```
TITLE SPSSX COMPUTATION - PEARSON CORRELATION
FILE HANDLE LEEDSRAT NAME= 'LEEDSRAT SPSSXFIL B'
GET FILE=LEEDSRAT
SELECT IF WARD NE 34
CONDESCRIPTIVE B64 B104 B124 B138 B61 B224
PEARSON CORR   B64 B104 B124 B138 B61 B224
OPTIONS 5
EXECUTE
```

FIGURE 7. The input file: RUN1 SPSSX

Wait for execution to begin and watch carefully for any SPSSX error messages which should appear on the terminal screen. Once execution has ended the results of the run will be in a file with a filetype of 'LISTING'. In this case the results will be in 'RUN1 LISTING'. A printout of RUN1 LISTING is shown in Figure 8 and includes a general statistical description of the specified variables and a full correlation matrix with significance levels.

```
18 MAY 84    SPSS-X RELEASE 1.1  FOR IBM VM/CMS
16:06:25      LEEDS UNIVERSITY                AMDAHL 470-V/7    VM/SP CMS

               SPSS INC LICENSE NUMBER:   1616


PARM FIELD: 64K

    1  0              TITLE SPSSX COMPUTATION - PEARSON CORRELATION
    2  0              FILE HANDLE LEEDSRAT NAME= 'LEEDSRAT SPSSXFIL B'
    3  0              GET FILE=LEEDSRAT

FILE CALLED LEEDSRAT:
  LABEL:
  CREATED 20 APR 84 15:23:49      721 VARIABLES


    4  0              SELECT IF WARD NE 34
    5  0              CONDESCRIPTIVE B64 B104 B124 B138 B61 B224

THERE ARE   132296 BYTES OF MEMORY AVAILABLE.
THE LARGEST CONTIGUOUS AREA HAS   130832 BYTES.

       444 BYTES OF MEMORY REQUIRED FOR CONDESCRIPTIVE PROCEDURE.
        12 BYTES HAVE ALREADY BEEN ACQUIRED.
       432 BYTES REMAIN TO BE ACQUIRED.

NUMBER OF VALID OBSERVATIONS (LISTWISE) =          33.00

VARIABLE        MEAN       STD DEV     MINIMUM     MAXIMUM VALID N   LABEL

B64           586.485       118.057     382.000     901.000      33
B104           61.879        48.499       3.000     185.000      33
B124          514.788       288.441      46.000    1149.000      33
B138         4809.424      1584.699    2313.000    7566.000      33
B61          2555.909       247.414    2187.000    3175.000      33
B224         1374.061       746.197     419.000    3117.000      33

PRECEDING TASK REQUIRED          0.20 SECONDS CPU TIME;
                                 3.02 SECONDS ELAPSED.

    6  0              PEARSON CORR   B64 B104 B124 B138 B61 B224
    7  0              OPTIONS 5

*****PEARSON CORR PROBLEM REQUIRES      720 BYTES WORKSPACE *****
```

FIGURE 8. The output file: RUN1 LISTING

- - - - - - - - - - - - P E A R S O N   C O R R E L A T I O N   C O E F F I C I E N T S - -

	B64	B104	B124	B138	B61	B224
B64	1.0000	.2163	.3844	.3757	-.5277**	-.0819
B104	.2163	1.0000	.7039**	.3609	-.0123	-.4127*
B124	.3844	.7039**	1.0000	.3370	-.0665	-.2054
B138	.3757	.3609	.3370	1.0000	-.7408**	-.8762**
B61	-.5277**	-.0123	-.0665	-.7408**	1.0000	.5312**
B224	-.0819	-.4127*	-.2054	-.8762**	.5312**	1.0000

* - SIGNIF. LE .01   ** - SIGNIF. LE .001   (99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)

PRECEDING TASK REQUIRED   0.06 SECONDS CPU TIME;   2.17 SECONDS ELAPSED.

```
 7 COMMAND LINES READ.
 0 ERRORS DETECTED.
 0 WARNINGS ISSUED.
 0 SECONDS CPU TIME.
10 SECONDS ELAPSED TIME.
   END OF JOB.
```

FIGURE 8. Continued

5. CONCLUDING REMARKS

This paper outlines an information system for Leeds containing census data and vital statistics that can be accessed via an interactive, user-friendly program. The data pertain mainly to the ward boundaries current at the time of the 1981 Census. These data have been used extensively in research into urban deprivation in Leeds (Hirschfield, 1984) and in the preparation of a Social Atlas of Leeds (Rees, Hirschfield and Birkin, 1984). However, students and other researchers are welcome to use this system for their own purposes : at the School of Geography we pursue a policy of shared access to public data sets.

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APPENDIX 1. DATAPAC code numbers and full definitions for variables included in the 1971-81 censuses comparable SAS files

'A' prefix identifies a 1971 census variable
'B' prefix identifies a 1981 census variable
'C' prefix identifies the 1981 variable expressed as a % of the 1971

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[ A,B,C ]    1, TOTAL POPULATION PRESENT                    /
[ A,B,C ]    2, PERSONS IN PRIVATE HOUSEHOLDS               /
[ A,B,C ]    3, PERSONS NOT IN PRIVATE HOUSEHOLDS           /
[ A,B,C ]    4, TOTAL RESIDENTS                             /
[ A,B,C ]    5, PERSONS AGED  0-4                           /
[ A,B,C ]    6, PERSONS AGED  5-9                           /
[ A,B,C ]    7, PERSONS AGED  10-14                         /
[ A,B,C ]    8, PERSONS AGED  15                            /
[ A,B,C ]    9, PERSONS AGED  16-19                         /
[ A,B,C ]   10, PERSONS AGED  20-24                         /
[ A,B,C ]   11, PERSONS AGED  25-29                         /
[ A,B,C ]   12, PERSONS AGED  30-34                         /
[ A,B,C ]   13, PERSONS AGED  35-39                         /
[ A,B,C ]   14, PERSONS AGED  40-44                         /
[ A,B,C ]   15, PERSONS AGED  45-49                         /
[ A,B,C ]   16, PERSONS AGED  50-54                         /
[ A,B,C ]   17, PERSONS AGED  55-59                         /
[ A,B,C ]   18, PERSONS AGED  60-64                         /
[ A,B,C ]   19, PERSONS AGED  65-69                         /
[ A,B,C ]   20, PERSONS AGED  70-74                         /
[ A,B,C ]   21, PERSONS AGED  75 AND OVER                   /
[ A,B,C ]   22, TOTAL MALE RESIDENTS                        /
[ A,B,C ]   23, MALES AGED  0-4                             /
[ A,B,C ]   24, MALES AGED  5-9                             /
[ A,B,C ]   25, MALES AGED  10-14                           /
[ A,B,C ]   26, MALES AGED  15                              /
[ A,B,C ]   27, MALES AGED  16-19                           /
[ A,B,C ]   28, MALES AGED  20-24                           /
[ A,B,C ]   29, MALES AGED  25-29                           /
[ A,B,C ]   30, MALES AGED  30-34                           /
[ A,B,C ]   31, MALES AGED  35-39                           /
[ A,B,C ]   32, MALES AGED  40-44                           /
[ A,B,C ]   33, MALES AGED  45-49                           /
[ A,B,C ]   34, MALES AGED  50-54                           /
[ A,B,C ]   35, MALES AGED  55-59                           /
[ A,B,C ]   36, MALES AGED  60-64                           /
[ A,B,C ]   37, MALES AGED  65-69                           /
[ A,B,C ]   38, MALES AGED  70-74                           /
[ A,B,C ]   39, MALES AGED  75 AND OVER                     /
[ A,B,C ]   40, TOTAL FEMALE RESIDENTS                      /
[ A,B,C ]   41, FEMALES AGED  0-4                           /
[ A,B,C ]   42, FEMALES AGED  5-9                           /
[ A,B,C ]   43, FEMALES AGED  10-14                         /
[ A,B,C ]   44, FEMALES AGED  15                            /
[ A,B,C ]   45, FEMALES AGED  16-19                         /
[ A,B,C ]   46, FEMALES AGED  20-24                         /
[ A,B,C ]   47, FEMALES AGED  25-29                         /
[ A,B,C ]   48, FEMALES AGED  30-34                         /
[ A,B,C ]   49, FEMALES AGED  35-39                         /
[ A,B,C ]   50, FEMALES AGED  40-44                         /
[ A,B,C ]   51, FEMALES AGED  45-49                         /
[ A,B,C ]   52, FEMALES AGED  50-54                         /
[ A,B,C ]   53, FEMALES AGED  55-59                         /
[ A,B,C ]   54, FEMALES AGED  60-64                         /
[ A,B,C ]   55, FEMALES AGED  65-69                         /
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APPENDIX 1. Continued

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[ A,B,C ]   56, FEMALES AGED  70-74  /
[ A,B,C ]   57, FEMALES AGED  75 AND OVER   /          /
[ A,B,C ]   58, INFANTS:      PERSONS AGED 0-4          /
[ A,B,C ]   59, CHILDREN:     PERSONS AGED 5-14         /
[ A,B,C ]   60, YOUTHS:       PERSONS AGED 15-24        /
[ A,B,C ]   61, YOUNG ADULTS: PERSONS AGED 25-44        /
[ A,B,C ]   62, MIDDLE AGED:  PERSONS AGED 45-64        /
[ A,B,C ]   63, ELDERLY:      PERSONS AGED 65-74        /
[ A,B,C ]   64, VERY OLD:     PERSONS AGED 75 & OVER    /
[ A,B,C ]   65, TOTAL MALES (ALL BIRTH PLACES)          /
[ A,B,C ]   66, MALES BORN IN ENGLAND                   /
[ A,B,C ]   67, MALES BORN IN SCOTLAND                  /
[ A,B,C ]   68, MALES BORN IN WALES                     /
[ A,B,C ]   69, MALES BORN IN REST OF U.K.              /
[ A,B,C ]   70, MALES BORN IN IRISH REPUBLIC            /
[ A,B,C ]   71, MALES BORN IN OLD COMMONWEALTH          /
[ A,B,C ]   72, MALES BORN IN NEW COMMONWEALTH          /
[ A,B,C ]   73, TOTAL FEMALES (ALL BIRTH PLACES)        /
[ A,B,C ]   74, FEMALES BORN IN ENGLAND                 /
[ A,B,C ]   75, FEMALES BORN IN SCOTLAND                /
[ A,B,C ]   76, FEMALES BORN IN WALES                   /
[ A,B,C ]   77, FEMALES BORN IN REST OF U.K.            /
[ A,B,C ]   78, FEMALES BORN IN IRISH REPUBLIC          /
[ A,B,C ]   79, FEMALES BORN IN OLD COMMONWEALTH        /
[ A,B,C ]   80, FEMALES BORN IN NEW COMMONWEALTH        /
[ A,B,C ]   81, TOTAL PERSONS (ALL BIRTH PLACES)        /
[ A,B,C ]   82, PERSONS BORN IN ENGLAND                 /
[ A,B,C ]   83, PERSONS BORN IN SCOTLAND                /
[ A,B,C ]   84, PERSONS BORN IN WALES                   /
[ A,B,C ]   85, PERSONS BORN IN REST OF U.K.            /
[ A,B,C ]   86, PERSONS BORN IN IRISH REPUBLIC          /
[ A,B,C ]   87, PERSONS BORN IN OLD COMMONWEALTH        /
[ A,B,C ]   88, PERSONS BORN IN NEW COMMONWEALTH        /
[ A,B,C ]   89, PERSONS ECONOMICALLY ACTIVE (E.A.)      /
[ A,B,C ]   90, PERSONS E.A. IN EMPLOYMENT              /
[ A,B,C ]   91, PERSONS E.A. SEEKING WORK               /
[ A,B,C ]   92, PERSONS ECONOMICALLY INACTIVE (E.I.)    /
[ A,B,C ]   93, PERSONS CLASSED AS STUDENTS             /
[ A,B,C ]   94, MALES ECONOMICALLY ACTIVE (E.A.)   /
[ A,B,C ]   95, MALES E.A. IN EMPLOYMENT           /
[ A,B,C ]   96, MALES E.A. SEEKING WORK            /
[ A,B,C ]   97, MALES ECONOMICALLY INACTIVE (E.I.) /
[ A,B,C ]   98, FEMALES ECONOMICALLY ACTIVE (E.A.)   /
[ A,B,C ]   99, FEMALES E.A. IN EMPLOYMENT           /
[ A,B,C ]  100, FEMALES E.A. SEEKING WORK            /
[ A,B,C ]  101, FEMALES ECONOMICALLY INACTIVE (E.I.) /
[ A,B,C ]  102, PRIVATE HOUSEHOLDS (HLDS)            /
[ A,B,C ]  103, HOUSEHOLDS WITH BASIC AMENITIES (**) /
[ A,B,C ]  104, HOUSEHOLDS WITHOUT A BATH            /
[ A,B,C ]  105, HOUSEHOLDS WITHOUT INSIDE W.C.       /
[ A,B,C ]  106, HOUSEHOLDS SHARING INSIDE W.C.       /
[ A,B,C ]  107, HLDS WITH )1.5 PERSONS PER ROOM      /
[ A,B,C ]  108, HLDS WITH )1.0 PERSONS PER ROOM      /
[ A,B,C ]  109, HOUSEHOLDS IN SHARED DWELLINGS       /
[ A,B,C ]  110, PRIVATE HLDS IN OWNER-OCCUPIED HOUSING    /
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APPENDIX 1. Continued

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[ A,B,C ]  111, OWNER-OCCUPIED: WITH BASIC AMENITIES (**) /
[ A,B,C ]  112, OWNER-OCCUPIED: WITHOUT A BATH            /
[ A,B,C ]  113, OWNER-OCCUPIED: WITHOUT INSIDE W.C.       /
[ A,B,C ]  114, OWNER-OCCUPIED: SHARING INSIDE W.C.       /
[ A,B,C ]  115, OWNER-OCCUPIED WITH >1.5 PERSONS PER ROOM /
[ A,B,C ]  116, OWNER-OCCUPIED WITH >1.0 PERSONS PER ROOM /
[ A,B,C ]  117, PRIVATE HLDS IN COUNCIL-RENTED HOUSING    /
[ A,B,C ]  118, COUNCIL-RENTED: WITH BASIC AMENITIES (**) /
[ A,B,C ]  119, COUNCIL-RENTED: WITHOUT A BATH            /
[ A,B,C ]  120, COUNCIL-RENTED: WITHOUT INSIDE W.C.       /
[ A,B,C ]  121, COUNCIL-RENTED: SHARING INSIDE W.C.       /
[ A,B,C ]  122, COUNCIL-RENTED WITH >1.5 PERSONS PER ROOM /
[ A,B,C ]  123, COUNCIL-RENTED WITH >1.0 PERSONS PER ROOM /
[ A,B,C ]  124, PRIVATE HLDS IN UNFURNISHED-RENTED HOUSING    /
[ A,B,C ]  125, UNFURNISHED-RENTED: WITH BASIC AMENITIES (**) /
[ A,B,C ]  126, UNFURNISHED-RENTED: WITHOUT A BATH            /
[ A,B,C ]  127, UNFURNISHED-RENTED: WITHOUT INSIDE W.C.       /
[ A,B,C ]  128, UNFURNISHED-RENTED: SHARING INSIDE W.C.       /
[ A,B,C ]  129, UNFURNISHED-RENTED WITH >1.5 PERSONS PER ROOM /
[ A,B,C ]  130, UNFURNISHED-RENTED WITH >1.0 PERSONS PER ROOM /
[ A,B,C ]  131, PRIVATE HLDS IN FURNISHED-RENTED HOUSING    /
[ A,B,C ]  132, FURNISHED-RENTED: WITH BASIC AMENITIES (**) /
[ A,B,C ]  133, FURNISHED-RENTED: WITHOUT A BATH            /
[ A,B,C ]  134, FURNISHED-RENTED: WITHOUT INSIDE W.C.       /
[ A,B,C ]  135, FURNISHED-RENTED: SHARING INSIDE W.C.       /
[ A,B,C ]  136, FURNISHED-RENTED WITH >1.5 PERSONS PER ROOM /
[ A,B,C ]  137, FURNISHED-RENTED WITH >1.0 PERSONS PER ROOM /
[ A,B,C ]  138, HOUSEHOLDS WITHOUT A CAR                    /
[ A,B,C ]  139, HOME-OWNERS WITHOUT A CAR                   /
[ A,B,C ]  140, COUNCIL-TENANTS WITHOUT A CAR               /
[ A,B,C ]  141, PRIVATE TENANTS WITHOUT A CAR (UNFURNISHED) /
[ A,B,C ]  142, PRIVATE TENANTS WITHOUT A CAR (FURNISHED)   /
[ A,B,C ]  143, HOUSEHOLDS WITH ONE CAR                     /
[ A,B,C ]  144, HOUSEHOLDS WITH TWO OR MORE CARS (***)      /
[ A,B,C ]  145, HOUSEHOLDS IN 1-2 ROOMS                     /
[ A,B,C ]  146, HOUSEHOLDS IN   3 ROOMS                     /
[ A,B,C ]  147, HOUSEHOLDS IN   4 ROOMS                     /
[ A,B,C ]  148, HOUSEHOLDS IN   5 ROOMS                     /
[ A,B,C ]  149, HOUSEHOLDS IN   6 ROOMS                     /
[ A,B,C ]  150, HOUSEHOLDS IN 7 OR MORE ROOMS               /
[ A,B,C ]  151, TOTAL HOUSEHOLDS (ALL ROOMS)                /
[ A,B,C ]  152, HLDS OWNER-OCCUPIED IN 1-2 ROOMS      /
[ A,B,C ]  153, HLDS OWNER-OCCUPIED IN   3 ROOMS      /
[ A,B,C ]  154, HLDS OWNER-OCCUPIED IN   4 ROOMS      /
[ A,B,C ]  155, HLDS OWNER-OCCUPIED IN   5 ROOMS      /
[ A,B,C ]  156, HLDS OWNER-OCCUPIED IN   6 ROOMS      /
[ A,B,C ]  157, HLDS OWNER-OCCUPIED I 7 OR MORE ROOMS /
[ A,B,C ]  158, TOTAL HLDS OWNER-OCCUPIED (ALL ROOMS) /
[ A,B,C ]  159, HLDS COUNCIL-RENTERS IN 1-2 ROOMS      /
[ A,B,C ]  160, HLDS COUNCIL-RENTERS IN   3 ROOMS      /
[ A,B,C ]  161, HLDS COUNCIL-RENTERS IN   4 ROOMS      /
[ A,B,C ]  162, HLDS COUNCIL-RENTERS IN   5 ROOMS      /
[ A,B,C ]  163, HLDS COUNCIL-RENTERS IN   6 ROOMS      /
[ A,B,C ]  164, HLDS COUNCIL-RENTERS IN 7 OR MORE ROOMS /
[ A,B,C ]  165, TOTAL HLDS COUNCIL-RENTERS (ALL ROOMS)  /
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APPENDIX 1. Continued

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[ A,B,C ]  166, HLDS UNFURNISHED-TENANTS IN 1-2 ROOMS        /
[ A,B,C ]  167, HLDS UNFURNISHED-TENANTS IN   3 ROOMS        /
[ A,B,C ]  168, HLDS UNFURNISHED-TENANTS IN   4 ROOMS        /
[ A,B,C ]  169, HLDS UNFURNISHED-TENANTS IN   5 ROOMS        /
[ A,B,C ]  170, HLDS UNFURNISHED-TENANTS IN   6 ROOMS        /
[ A,B,C ]  171, HLDS UNFURNISHED-TENANTS IN 7 OR MORE ROOMS  /
[ A,B,C ]  172, TOTAL HLDS UNFURNISHED-TENANTS (ALL ROOMS)   /
[ A,B,C ]  173, HLDS FURNISHED-TENANTS IN 1-2 ROOMS        /
[ A,B,C ]  174, HLDS FURNISHED-TENANTS IN   3 ROOMS        /
[ A,B,C ]  175, HLDS FURNISHED-TENANTS IN   4 ROOMS        /
[ A,B,C ]  176, HLDS FURNISHED-TENANTS IN   5 ROOMS        /
[ A,B,C ]  177, HLDS FURNISHED-TENANTS IN   6 ROOMS        /
[ A,B,C ]  178, HLDS FURNISHED-TENANTS IN 7 OR MORE ROOMS  /
[ A,B,C ]  179, TOTAL HLDS FURNISHED-TENANTS (ALL ROOMS)   /
[ A,B,C ]  180, TOTAL HOUSEHOLDS (ALL PERSONS)             /
[ A,B,C ]  181, HOUSEHOLDS WITH 1  PERSON                  /
[ A,B,C ]  182, HOUSEHOLDS WITH 2 PERSONS                  /
[ A,B,C ]  183, HOUSEHOLDS WITH 3 PERSONS                  /
[ A,B,C ]  184, HOUSEHOLDS WITH 4 PERSONS                  /
[ A,B,C ]  185, HOUSEHOLDS WITH 5 PERSONS                  /
[ A,B,C ]  186, HOUSEHOLDS WITH 6 PERSONS                  /
[ A,B,C ]  187, HOUSEHOLDS WITH 7 OR MORE PERSONS          /
[ A,B,C ]  188, HOUSEHOLDS: NO CHILDREN 0-14(15)           /
[ A,B,C ]  189, HOUSEHOLDS: 1 CHILD     0-14(15)           /
[ A,B,C ]  190, HOUSEHOLDS  2+ CHILDREN 0-14(15)           /
[ A,B,C ]  191, HOUSEHOLDS: 1 INFANT    0-4                /
[ A,B,C ]  192, HOUSEHOLDS: 1 CHILD     5-14(15)           /
[ A,B,C ]  193, HOUSEHOLDS: 2+ INFANTS  0-4                /
[ A,B,C ]  194, HOUSEHOLDS: 2+ CHILDREN 5-14(15)           /
[ A,B,C ]  195, FAMILIES WITH DEPENDANT CHILDREN           /
[ A,B,C ]  196, SINGLE-PENSIONER HOUSEHOLDS                /
[ A,B,C ]  197, E.A. RETIRED PERSONS SEG.1                 /
[ A,B,C ]  198, E.A. RETIRED PERSONS SEG.2                 /
[ A,B,C ]  199, E.A. RETIRED PERSONS SEG.3                 /
[ A,B,C ]  200, E.A. RETIRED PERSONS SEG.4                 /
[ A,B,C ]  201, E.A. RETIRED PERSONS SEG.5                 /
[ A,B,C ]  202, E.A. RETIRED PERSONS SEG.6                 /
[ A,B,C ]  203, E.A. RETIRED PERSONS SEG.7                 /
[ A,B,C ]  204, E.A. RETIRED PERSONS SEG.8                 /
[ A,B,C ]  205, E.A. RETIRED PERSONS SEG.9                 /
[ A,B,C ]  206, E.A. RETIRED PERSONS SEG.10                /
[ A,B,C ]  207, E.A. RETIRED PERSONS SEG.11                /
[ A,B,C ]  208, E.A. RETIRED PERSONS SEG.12                /
[ A,B,C ]  209, E.A. RETIRED PERSONS SEG.13                /
[ A,B,C ]  210, E.A. RETIRED PERSONS SEG.14                /
[ A,B,C ]  211, E.A. RETIRED PERSONS SEG.15                /
[ A,B,C ]  212, E.A. RETIRED PERSONS SEG.16                /
[ A,B,C ]  213, E.A. RETIRED PERSONS SEG.17                /
[ A,B,C ]  214, MANAGERS                                   /
[ A,B,C ]  215, PROFESSIONALS                              /
[ A,B,C ]  216, INTERMED NON-MANUAL                        /
[ A,B,C ]  217, JUNIOR   NON-MANUAL                        /
[ A,B,C ]  218, SKILLED MANUAL                             /
[ A,B,C ]  219, SEMI-SKILLED MANUAL                        /
[ A,B,C ]  220, UNSKILLED MANUAL                           /
[ A,B,C ]  221, SELF EMPLOYED                              /
[ A,B,C ]  222, DEFENCE SERVICES                           /
[ A,B,C ]  223, INADEQUATELY DESCRIBED                     /
[ A,B,C ]  224, 'UPPER CLASS'   RESIDENTS                  /
[ A,B,C ]  225, 'MIDDLE CLASS'  RESIDENTS                  /
[ A,B,C ]  226, 'WORKING CLASS' RESIDENTS                  /
[ A,B,C ]  227, 'UNCLASSIFIED ' RESIDENTS                  /
[ A,B,C ]  228, TOTAL E.A. AND RETIRED PERSONS             /
[ A,B,C ]  229, PERSONS WITH A-LEV, HNC, DEGREE OR EQUIV *** /
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APPENDIX 2. DATAPAC code numbers and full definitions for variables included in the 1981 census selected SAS files

VARIABLE DEFINITIONS FOR 1981 CENSUS SAS FILES (FILE CODES 5 - 8)

K E Y T O A B R E V I A T I O N S

EA	= ECONOMICALLY ACTIVE
HLD,HLDS,HD	= HOUSEHOLD(S)
PERS	= PERSONS
/	= IN OR WITH
SEG	= SOCIO-ECONOMIC GROUP
CLASS	= SOCIAL CLASS

(VARIABLES LISTED RELATE TO CODES B230 - B681)

B230	TOTAL RESIDENTS (1981 BASE)		
B231	PERSONS IN PRIVATE HOUSEHOLDS		
B232	PERSONS NOT IN PRIV HOUSEHOLDS		
B233	TOTAL RESIDENTS (ALL AGES)	B253	TOTAL MALE RESIDENTS (ALL AGES)
B234	PERSONS AGED 0-4	B254	MALES AGED 0-4
B235	PERSONS AGED 5-9	B255	MALES AGED 5-9
B236	PERSONS AGED 10-14	B256	MALES AGED 10-14
B237	PERSONS AGED 15	B257	MALES AGED 15
B238	PERSONS AGED 16-19	B258	MALES AGED 16-19
B239	PERSONS AGED 20-24	B259	MALES AGED 20-24
B240	PERSONS AGED 25-29	B260	MALES AGED 25-29
B241	PERSONS AGED 30-34	B261	MALES AGED 30-34
B242	PERSONS AGED 35-39	B262	MALES AGED 35-39
B243	PERSONS AGED 40-44	B263	MALES AGED 40-44
B244	PERSONS AGED 45-49	B264	MALES AGED 45-49
B245	PERSONS AGED 50-54	B265	MALES AGED 50-54
B246	PERSONS AGED 55-59	B266	MALES AGED 55-59
B247	PERSONS AGED 60-64	B267	MALES AGED 60-64
B248	PERSONS AGED 65-69	B268	MALES AGED 65-69
B249	PERSONS AGED 70-74	B269	MALES AGED 70-74
B250	PERSONS AGED 75-79	B270	MALES AGED 75-79
B251	PERSONS AGED 80-84	B271	MALES AGED 80-84
B252	PERSONS AGED 85 & OVER	B272	MALES AGED 85 & OVER
B273	TOTAL FEMALES (ALL AGES)	B293	TOTAL MALES (BORN ALL PLACES)
B274	FEMALES AGED 0-4	B294	MALES BORN ENGLAND
B275	FEMALES AGED 5-9	B295	MALES BORN SCOTLAND
B276	FEMALES AGED 10-14	B296	MALES BORN WALES
B277	FEMALES AGED 15	B297	MALES BORN REST OF U.K.
B278	FEMALES AGED 16-19	B298	MALES BORN IRISH REPUBLIC
B279	FEMALES AGED 20-24	B299	MALES BORN OLD COMMONWEALTH
B280	FEMALES AGED 25-29	B300	MALES BORN NEW COMMONWEALTH (NC
B281	FEMALES AGED 30-34	B301	MALES BORN NC S.AFRICA
B282	FEMALES AGED 35-39	B302	MALES BORN NC AFRICA REMAINDER
B283	FEMALES AGED 40-44	B303	MALES BORN CARRIBEAN
B284	FEMALES AGED 45-49	B304	MALES BORN INDIA
B285	FEMALES AGED 50-54	B305	MALES BORN BANGLADESH

APPENDIX 2. Continued

B286 FEMALES AGED 55-59	B306 MALES BORN FAR EAST
B287 FEMALES AGED 60-64	B307 MALES BORN NC MEDITTERANEAN
B288 FEMALES AGED 65-69	B308 MALES BORN NC REMAINDER
B289 FEMALES AGED 70-74	B309 MALES BORN PAKISTAN
B290 FEMALES AGED 75-79	B310 MALES BORN EUROPE E.E.C.
B291 FEMALES AGED 80-84	B311 MALES BORN REST OF EUROPE
B292 FEMALES AGED 85 & OVER	B312 MALES BORN REST OF WORLD
B313 TOTAL FEMALES (BORN ALL PLACES)	B333 TOTAL PERSONS (BORN ALL PLACES)
B314 FEMALES BORN ENGLAND	B334 PERSONS BORN ENGLAND
B315 FEMALES BORN SCOTLAND	B335 PERSONS BORN SCOTLAND
B316 FEMALES BORN WALES	B336 PERSONS BORN WALES
B317 FEMALES BORN REST OF U.K.	B337 PERSONS BORN REST OF U.K.
B318 FEMALES BORN IRISH REPUBLIC	B338 PERSONS BORN IRISH REPUBLIC
B319 FEMALES BORN OLD COMMONWEALTH	B339 PERSONS BORN OLD COMMONWEALTH
B320 FEMALES BORN NEW COMMONWEALTH (NC	B340 PERSONS BORN NEW COMMONWEALTH NC
B321 FEMALES BORN NC E.AFRICA	B341 PERSONS BORN NC E.AFRICA
B322 FEMALES BORN NC AFRICA REMAINDER	B342 PERSONS BORN NC AFRICA REMAINDER
B323 FEMALES BORN CARRIBEAN	B343 PERSONS BORN CARRIBEAN
B324 FEMALES BORN INDIA	B344 PERSONS BORN INDIA
B325 FEMALES BORN BANGLADESH	B345 PERSONS BORN BANGLADESH
B326 FEMALES BORN FAR EAST	B346 PERSONS BORN FAR EAST
B327 FEMALES BORN NC MEDITTERANEAN	B347 PERSONS BORN NC MEDITTERANEAN
B328 FEMALES BORN NC REMAINDER	B348 PERSONS BORN NC REMAINDER
B329 FEMALES BORN PAKISTAN	B349 PERSONS BORN PAKISTAN
B330 FEMALES BORN EUROPE E.E.C.	B350 PERSONS BORN EUROPE E.E.C.
B331 FEMALES BORN REST OF EUROPE	B351 PERSONS BORN REST OF EUROPE
B332 FEMALES BORN REST OF WORLD	B352 PERSONS BORN REST OF WORLD
B353 ECON ACTIVE MALES	B373 ECON ACTIVE FEMALES 40-44
B354 ECON ACTIVE MALES 16-19	B374 ECON ACTIVE FEMALES 45-49
B355 ECON ACTIVE MALES 20-24	B375 ECON ACTIVE FEMALES 50-54
B356 ECON ACTIVE MALES 25-29	B376 ECON ACTIVE FEMALES 55-59
B357 ECON ACTIVE MALES 30-34	B377 ECON ACTIVE FEMALES 60-64
B358 ECON ACTIVE MALES 35-39	B378 ECON ACTIVE FEMALES 65-69
B359 ECON ACTIVE MALES 40-44	B379 ECON ACTIVE FEMALES 70-74
B360 ECON ACTIVE MALES 45-49	B380 ECON ACTIVE FEMALES 75 +
B361 ECON ACTIVE MALES 50-54	B381 ECON ACTIVE MALE YOUTHS 16-24
B362 ECON ACTIVE MALES 55-59	B382 ECON ACTIVE FEMALE YOUTHS 16-24
B363 ECON ACTIVE MALES 60-64	B383 ECON ACTIVE UNEMPLOYED PERSONS
B364 ECON ACTIVE MALES 65-69	B384 ECON ACTIVE UNEMPLOYED MALES
B365 ECON ACTIVE MALES 70-74	B385 UNEMPLOYED MALES 16-19
B366 ECON ACTIVE MALES 75 +	B386 UNEMPLOYED MALES 20-24
B367 ECON ACTIVE FEMALES	B387 UNEMPLOYED MALES 25-29
B368 ECON ACTIVE FEMALES 16-19	B388 UNEMPLOYED MALES 30-34
B369 ECON ACTIVE FEMALES 20-24	B389 UNEMPLOYED MALES 35-39
B370 ECON ACTIVE FEMALES 25-29	B390 UNEMPLOYED MALES 40-44
B371 ECON ACTIVE FEMALES 30-34	B391 UNEMPLOYED MALES 45-49
B372 ECON ACTIVE FEMALES 35-39	B392 UNEMPLOYED MALES 50-54
B393 UNEMPLOYED MALES 55-59	B413 ECON ACTIVE IN HLD 0 CHILD 0-15
B394 UNEMPLOYED MALES 60-64	B414 ECON ACTIVE IN HLD 1 CHILD 0-15
B395 UNEMPLOYED MALES 65-69	B415 ECON ACTIVE IN HLD 2 CHILD 0-15
B396 UNEMPLOYED MALES 70-74	B416 ECON ACTIVE IN HLD 3 CHILD 0-15
B397 UNEMPLOYED MALES 75 +	B417 ECON ACTIVE IN HLD 4+ CHILD 0-15

APPENDIX 2. Continued

B398	ECON ACTIVE UNEMPLOYED FEMALES	B418	E.A.P. UNEMPLOYED IN PR HLDS
B399	UNEMPLOYED FEMALES 16-19	B419	UNEMPLOYED IN HLD 0 CHILD 0-1
B400	UNEMPLOYED FEMALES 20-24	B420	UNEMPLOYED IN HLD 1 CHILD 0-1
B401	UNEMPLOYED FAMALES 25-29	B421	UNEMPLOYED IN HLD 2 CHILD 0-1
B402	UNEMPLOYED FEMALES 30-34	B422	UNEMPLOYED IN HLD 3 CHILD 0-1
B403	UNEMPLOYED FEMALES 35-39	B423	UNEMPLOYED IN HLD 4+ CHILD 0-1
B404	UNEMPLOYED FEMALES 40-44	B424	NOs AGED 0-15 IN LONE MALE HLD
B405	UNEMPLOYED FEMALES 45-49	B425	NOs AGED 0-15/LONE EA MALE HLD
B406	UNEMPLOYED FEMALES 50-54	B426	NOs AGED 0-15/LONE WORK MALE H
B407	UNEMPLOYED FEMALES 55-59	B427	NOs AGED 0-15/LONE FEMALE HLD
B408	UNEMPLOYED FEMALES 60-64	B428	NOs AGED 0-15/LONE EA FEMALE H
B409	UNEMPLOYED FEMALES 65-69	B429	NOs AGED 0-15/LONE WORK FEMALE
B410	UNEMPLOYED FEMALES 70-74	B430	HOUSEHLDS SHARING BATH & OR W.C
B411	UNEMPLOYED FEMALES 75 +	B431	HOUSEHLDS LACKING BATH OR W.C.
B412	ECON ACTIVE PERSONS IN PR HLDS	B432	HOUSEHLDS LACKING BATH & W.C.
B433	OWNER OCC SHARE BATH & OR WC	B453	HOUSING A ACUTE CROWDING >1.5P
B434	OWNER OCC LACK BATH OR WC	B454	HOUSING A MOD CROWDING >1.0P
B435	OWNER OCC LACK BATH & WC	B455	HOUSEHOLDS WITH 1 CAR
B436	COUNCIL R SHARE BATH & OR WC	B456	HOUSEHOLDS WITH 2 CARS
B437	COUNCIL R LACK BATH OR WC	B457	HOUSEHOLDS WITH 3 OR MORE CARS
B438	COUNCIL R LACK BATH & WC	B458	HLDS IN NON-SELF CONTAINED ACC
B439	UNFURNISHD R SHARE BATH & OR WC	B459	HLDS NOT S.C MODERATE CROWDI
B440	UNFURNISHD R LACK BATH OR WC	B460	HLDS NOT S.C XUSE OF W.C & BAT
B441	UNFURNISHD R LACK BATH & WC	B461	HLDS NOT S.C LACKING BATH
B442	FURNISHED R SHARE BATH & OR WC	B462	HLDS NOT S.C LACKING W.C.
B443	FURNISHED R LACK BATH OR WC	B463	HLDS NOT S.C WITHOUT A CAR
B444	FURNISHED R LACK BATH & WC	B464	HOUSEHOLDS WITH 1 PERSON NOT S
B445	HLDS RENTING FROM HOUSING ASSOC.	B465	HLDS 1 PERS NOT SC MOD CROWDIN
B446	HOUSING A. XUSE OF BATH & WC	B466	HLDS 1 PERS NOT SC XUSE WC & B
B447	HOUSING A. SHARE BATH & OR WC	B467	HLDS 1 PERS NOT SC LACKING BAT
B448	HOUSING A. LACK BATH OR WC	B468	HLDS 1 PERS NOT SC LACKING WC
B449	HOUSING A. LACK BATH & WC	B469	HLDS 1 PERS NOT SC WITHOUT CAR
B450	HOUSING A. LACK BATH	B470	HOUSEHOLDS WITH 2 PERSONS NOT S
B451	HOUSING A. LACK W.C	B471	HLDS 2 PERS NOT SC MOD CROWDIN
B452	HOUSING A. SHARE W.C	B472	HLDS 2 PERS NOT SC XUSE WC BAT
B473	HLD 2 PERS NOT SC LACK BATH	B493	SINGLE PARENT HLD LACK WC
B474	HLD 2 PERS NOT SC LACK WC	B494	SINGLE PARENT HLD NOT SC
B475	HLD 2 PERS NOT SC WITHOUT CAR	B495	SINGLE PARENT HLD NO CAR
B476	HOUSEHOLDS WITH 3 PERSONS NOT SC	B496	HLDS WITH 3 + DEPENDENT CHILDR
B477	HLD 3 PERS NOT SC MOD CROWDING	B497	HLDS 3+ DEP CHN MOD CROWDING
B478	HLD 3 PERS NOT SC XUSE WC BATH	B498	HLDS 3+ DEP CHN XUSE WC BATH
B479	HLD 3 PERS NOT SC LACK BATH	B499	HLDS 3+ DEP CHN LACKING BATH
B480	HLD 3 PERS NOT SC LACK WC	B500	HLDS 3+ DEP CHN LACKING WC
B481	HLD 3 PERS NOT SC WITHOUT CAR	B501	HLDS 3+ DEP CHN NOT SC
B482	HOUSEHLDS WITH DEPENDENT CHILDRN	B502	HLDS 3+ DEP CHN WITHOUT CAR
B483	HLDS DEP CHILDREN MOD CROWDING	B503	HLDS WITH 1 OR MORE PENSIONERS
B484	HLDS DEP CHILDREN XUSE WC BATH	B504	PENSIONER HLDS MODERATE CROWDIN
B485	HLDS DEP CHILDREN LACK BATH	B505	PENSIONER HLDS XUSE WC BATH
B486	HLDS DEP CHILDREN LACK WC	B506	PENSIONER HLDS LACK BATH
B487	HLDS DEP CHILDREN NOT SC	B507	PENSIONER HLDS LACK WC
B488	HLDS DEP CHILDREN WITHOUT CAR	B508	PENSIONER HLDS NOT SC
B489	HLDS WITH SINGLE PARENT + DEP CH	B509	PENSIONER HLDS WITHOUT CAR
B490	SINGLE PARENT HLD MOD CROWDED	B510	HLDS- LONE MALE PENSIONER 65-7

APPENDIX 2. Continued

B491	SINLGE PARENT HLD XUSE WC BATH	B511	HLDS L.M.P 65-74 MOD CROWDING
B492	SINGLE PARENT HLD LACK BATH	B512	HLDS L.M.P 65-74 XUSE WC BATH
B513	HLDS L.M.P. 65-74 LACK BATH	B533	HLDS L.F.P. 75 + XUSE WC BATH
B514	HLDS L.M.P. 65-74 LACK WC	B534	HLDS L.F.P. 75 + LACK BATH
B515	HLDS L.M.P. 65-74 NOT SC	B535	HLDS L.F.P. 75 + LACK WC
B516	HLDS L.M.P. 65-74 WITHOUT CAR	B536	HLDS L.F.P. 75 + NOT SC
B517	HLDS - LONE MALE PENSIONER 75+	B537	HLDS L.F.P. 75 + WITHOUT CAR
B518	HLDS L.M.P. 75 + MOD CROWDING	B538	HLDS 2+ PENSIONERS ALL UNDER 75
B519	HLDS L.M.P. 75 + XUSE WC BATH	B539	HLDS 2+ PENS (75 MOD CROWDING
B520	HLDS L.M.P. 75 + LACK BATH	B540	HLDS 2+ PENS (75 XUSE WC BATH
B521	HLDS L.M.P. 75 + LACK WC	B541	HLDS 2+ PENS (75 LACK BATH
B522	HLDS L.M.P. 75 + NOT SC	B542	HLDS 2+ PENS (75 LACK WC
B523	HLDS L.M.P. 75 + WITHOUT CAR	B543	HLDS 2+ PENS (75 NOT SC
B524	HLDS LONE FEMALE PENS 60-74	B544	HLDS 2+ PENS (75 WITHOUT CAR
B525	HLDS L.F.P. 60-74 MOD CROWDING	B545	HLDS 2+ PENSIONERS ANY AGED 75+
B526	HLDS L.F.P. 60-74 XUSE WC BATH	B546	HLDS 2+ PENS ANY 75+ MOD CROWDED
B527	HLDS L.F.P. 60-74 LACK BATH	B547	HLDS 2+ PENS ANY 75+ XUSE WC BATH
B528	HLDS L.F.P. 60-74 LACK WC	B548	HLDS 2+ PENS ANY 75+ LACK BATH
B529	HLDS L.F.P. 60-74 NOT SC	B549	HLDS 2+ PENS ANY 75+ LACK WC
B530	HLDS L.F.P. 60-74 WITHOUT CAR	B550	HLDS 2+ PENS ANY 75+ NOT SC
B531	HLDS LONE FEMALE PENSIONER 75+	B551	HLDS 2+ PENS ANY 75+ WITHOUT CAR
B532	HLDS L.F.P. 75+ MOD CROWDING	B552	HOUSEHOLDS WITH HEADS BORN NC/PAK
B553	HLDS N.C BORN HEADS MOD CROWDED	B573	HLDS HOUSING ASSOC. 5 ROOMS
B554	HLDS N.C BORN HEADS XUSE WC BATH	B574	HLDS HOUSING ASSOC. 6 ROOMS
B555	HLDS N.C BORN HEADS LACK BATH	B575	HLDS HOUSING ASSOC. 7+ ROOMS
B556	HLDS N.C BORN HEADS LACK WC	B576	HLDS HOUSING ACCOC. ALL SIZES
B557	HLDS N.C BORN HEADS NOT SC	B577	HLDS OWNER OCCUPIED ALL PERSONS
B558	HLDS N.C BORN HEADS WITHOUT CAR	B578	HLDS OWNER OCCUPIED 1 PERSON
B559	HOUSEHOLDS WITH 1 ROOM	B579	HLDS OWNER OCCUPIED 2 PERSONS
B560	HOUSEHOLDS WITH 2 ROOMS	B580	HLDS OWNER OCCUPIED 3 PERSONS
B561	HLDS OWNER OCCUPIED 1 ROOM	B581	HLDS OWNER OCCUPIED 4 PERSONS
B562	HLDS OWNER OCCUPIED 2 ROOMS	B582	HLDS OWNER OCCUPIED 5 PERSONS
B563	HLDS COUNCIL RENTING 1 ROOM	B583	HLDS OWNER OCCUPIED 6 PERSONS
B564	HLDS COUNCIL RENTING 2 ROOMS	B584	HLDS OWNER OCCUPIED 7+ PERSONS
B565	HLDS UNFURNISHED RENTING 1 ROOM	B585	HLDS COUNCIL RENT ALL PERSONS
B566	HLDS UNFURNISHED RENTING 2 ROOMS	B586	HLDS COUNCIL RENT 1 PERSON
B567	HLDS FURNISHED RENTING 1 ROOM	B587	HLDS COUNCIL RENT 2 PERSONS
B568	HLDS FURNISHED RENTING 2 ROOMS	B588	HLDS COUNCIL RENT 3 PERSONS
B569	HLDS HOUSING ASSOC. 1 ROOM	B589	HLDS COUNCIL RENT 4 PERSONS
B570	HLDS HOUSING ASSOC. 2 ROOM	B590	HLDS COUNCIL RENT 5 PERSONS
B571	HLDS HOUSING ASSOC. 3 ROOMS	B591	HLDS COUNCIL RENT 6 PERSONS
B572	HLDS HOUSING ASSOC. 4 ROOMS	B592	HLDS COUNCIL RENT 7+ PERSONS
B593	HLDS HOUSING ASSOC. ALL PERSONS	B613	HLDS FURNISHED RENT 4 PERSONS
B594	HLDS HOUSING ASSOC. 1 PERSON	B614	HLDS FURNISHED RENT 5 PERSONS
B595	HLDS HOUSING ASSOC. 2 PERSONS	B615	HLDS FURNISHED RENT 6 PERSONS
B596	HLDS HOUSING ASSOC. 3 PERSONS	B616	HLDS FURNISHED RENT 7+ PERSONS
B597	HLDS HOUSING ASSOC. 4 PERSONS	B617	SINGLE PENSIONER HOUSEHOLDS
B598	HLDS HOUSING ASSOC. 5 PERSONS	B618	SINGLE PENSIONER HLDS OWNER OCC
B599	HLDS HOUSING ASSOC. 6 PERSONS	B619	SINGLE PENSIONER HLDS COUNCIL R
B600	HLDS HOUSING ASSOC. 7+ PERSONS	B620	SINGLE PENSIONER HLDS HOUSING A
B601	HLDS UNFURNISHED RENT ALL PERS	B621	SINGLE PENSIONER HLDS UNFURND R
B602	HLDS UNFURNISHED RENT 1 PERSON	B622	SINGLE PENSIONER HLDS FURNISH R

APPENDIX 2. Continued

B603	HLDS UNFURNISHED RENT 2 PERSONS	B623	PENSIONER HOUSEHOLDS
B604	HLDS UNFURNISHED RENT 3 PERSONS	B624	PENSIONER HLDS OWNER OCCUPIED
B605	HLDS UNFURNISHED RENT 4 PERSONS	B625	PENSIONER HLDS COUNCIL RENTING
B606	HLDS UNFURNISHED RENT 5 PERSONS	B626	PENSIONER HLDS HOUSING ASSOC.
B607	HLDS UNFURNISHED RENT 6 PERSONS	B627	PENSIONER HLDS UNFURNISHED RENT
B608	HLDS UNFURNISHED RENT 7+ PERSONS	B628	PENSIONER HLDS FURNISHED RENT
B609	HLDS FURNISHED RENT ALL PERSONS	B629	PENSIONER PERSONS UPTO & = 74
B610	HLDS FURNISHED RENT 1 PERSONS	B630	PENSIONERS TO AGE 74 OWNER OCC
B611	HLDS FURNISHED RENT 2 PERSONS	B631	PENSIONERS TO AGE 74 COUNCIL RE
B612	HLDS FURNISHED RENT 3 PERSONS	B632	PENSIONERS TO AGE 74 HOUSING AS
B633	PENSIONERS TO AGE 74 UNFURNISH R	B653	ECON ACTIVE/RETIRED SEG 1
B634	PENSIONERS TO AGE 74 FURNISHED R	B654	ECON ACTIVE/RETIRED SEG 2
B635	PENSIONERS OF 75+ IN PRIV HLDS	B655	ECON ACTIVE/RETIRED SEG 3
B636	PENSIONERS OF 75+ OWNER OCC	B656	ECON ACTIVE/RETIRED SEG 4
B637	PENSIONERS OF 75+ COUNCIL RENT	B657	ECON ACTIVE/RETIRED SEG 5
B638	PENSIONERS OF 75+ HOUSING ASSOCN	B658	ECON ACTIVE/RETIRED SEG 6
B639	PENSIONERS OF 75+ UNFURNISHED R	B659	ECON ACTIVE/RETIRED SEG 7
B640	PENSIONERS OF 75+ FURNISHED R	B660	ECON ACTIVE/RETIRED SEG 8
B641	CHILDREN AGED 0-4 IN HOUSEHOLDS	B661	ECON ACTIVE/RETIRED SEG 9
B642	CHILDREN 0-4 IN HLDS OWNER OCC	B662	ECON ACTIVE/RETIRED SEG 10
B643	CHILDREN 0-4 IN HLDS COUNCIL R	B663	ECON ACTIVE/RETIRED SEG 11
B644	CHILDREN 0-4 IN HLDS HOUSING A	B664	ECON ACTIVE/RETIRED SEG 12
B645	CHILDREN 0-4 IN HLDS UNFURN R	B665	ECON ACTIVE/RETIRED SEG 13
B646	CHILDREN 0-4 IN HLDS FURNISH R	B666	ECON ACTIVE/RETIRED SEG 14
B647	CHILDREN AGED 5-15 IN HOUSEHOLDS	B667	ECON ACTIVE/RETIRED SEG 15
B648	CHILDREN 5-15 IN HLDS OWNER OCC	B668	ECON ACTIVE/RETIRED SEG 16
B649	CHILDREN 5-15 IN HLDS COUNCIL R	B669	ECON ACTIVE/RETIRED SEG 17
B650	CHILDREN 5-15 IN HLDS HOUSING A	B670	PERSONS IN HLDS/EA HEAD CLASS I
B651	CHILDREN 5-15 IN HLDS UNFURN R	B671	PERS IN HLDS/EA HEAD CLASS II
B652	CHILDREN 5-15 IN HLDS FURNISH R	B672	PERS IN HLDS/EA HEAD CLASS III
B673	PERS IN HLDS/EA HEAD CLASS IIIM		
B674	PERS IN HLDS/EA HEAD CLASS IV		
B675	PERS IN HLDS/EA HEAD CLASS V		
B676	PERS IN HLDS/EA HEAD FORCES-OTH		
B677	RESIDENTS 18-29 WITH DEGREE		
B678	RESIDENTS 30-44 WITH DEGREE		
B679	RESIDENTS 45-64/59 WITH DEGREE		
B680	PENSIONER RESIDENTS WITH DEGREE		
B681	EMPLOYED RESIDENTS WITH DEGREE		

APPENDIX 3. DATAPAC code numbers and full definitions for variables included in the 1978-80 selected birth statistics files

H1	ALL BIRTHS TO LEEDS RESIDENTS 1978-80
H2	MALE BIRTHS
H3	FEMALE BIRTHS
H4	BIRTHS (LEGITIMACY UNRECORDED)
H5	LEGITIMATE BIRTHS
H6	ILLEGITIMATE BIRTHS
H7	HOME BIRTHS
H8	HOSPITAL BIRTHS
H9	BIRTHS (PLACE OF CONFINEMENT "OTHER")
H10	BIRTHS TO MOTHERS UNDER 20 YEARS OF AGE
H11	BIRTHS TO MOTHERS AGED 20-24
H12	BIRTHS TO MOTHERS AGED 25-29
H13	BIRTHS TO MOTHERS AGED 30-34
H14	BIRTHS TO MOTHERS AGED 35 AND OVER
H15	V. LOW WEIGHT BIRTHS UNDER 2,500 GRAMMES
H16	LOW WEIGHT BIRTHS 2,500-2,999 GRAMMES
H17	BIRTHS OF AVERAGE WEIGHT 3,000-3,499 GRAMMES
H18	HIGH WEIGHT BIRTHS 3,500-3,999 GRAMMES
H19	V.HIGH WEIGHT BIRTHS OVER 4,000 GRAMMES
H20	BIRTHS (SOCIAL CLASS UNSPECIFIED)
H21	BIRTHS IN SOCIAL CLASS I
H22	BIRTHS IN SOCIAL CLASS II
H23	BIRTHS IN SOCIAL CLASS III NON MANUAL
H24	BIRTHS IN SOCIAL CLASS III MANUAL
H25	BIRTHS IN SOCIAL CLASS IV
H26	BIRTHS IN SOCIAL CLASS V
H27	BIRTHS TO MOTHERS BORN GREAT BRITAIN & N.IRELAND
H28	BIRTHS TO MOTHERS BORN IRISH REPUBLIC
H29	BIRTHS TO MOTHERS BORN OLD COMMONWEALTH
H30	BIRTHS TO MOTHERS BORN NEW COMMONWEALTH & PAKISTAN
H31	BIRTHS TO MOTHERS BORN ELSEWHERE OR NOT STATED
H32	BIRTHS FATHERS BORN GREAT BRITAIN & N.IRELAND
H33	BIRTHS FATHERS BORN IRISH REPUBLIC
H34	BIRTHS FATHERS BORN OLD COMMONWEALTH
H35	BIRTHS FATHERS BORN NEW COMMONWEALTH & PAKISTAN
H36	BIRTHS FATHERS BORN ELSEWHERE OR NOT STATED
H37	BIRTHS TO MOTHERS WITH NO PREVIOUS LIVE BIRTHS (PARITY 0)
H38	BIRTHS TO MOTHERS WITH 1 PREVIOUS LIVE BIRTH (PARITY 1)
H39	BIRTHS TO MOTHERS WITH 2 PREVIOUS LIVE BIRTHS (PARITY 2)
H40	BIRTHS TO MOTHERS WITH 3 PREVIOUS LIVE BIRTHS (PARITY 3)
H41	BIRTHS TO MOTHERS WITH 4+ PREVIOUS LIVE BIRTHS (PARITY 4+)
H42	WINTER BIRTHS (DEC - JAN - FEB)
H43	SPRING BIRTHS (MAR - APR - MAY)
H44	SUMMER BIRTHS (JUN - JUL - AUG)
H45	AUTUMN BIRTHS (SEP - OCT - NOV)

APPENDIX 3. Continued

BIRTH WEIGHT VARIABLES	
H46	AVERAGE BIRTH WEIGHT IN GRAMMES
H47	MEAN WEIGHT LEVEL FOR LEGITIMATE BIRTHS (IN GRAMMES)
H48	MEAN WEIGHT LEVEL FOR ILLEGITIMATE BIRTHS (IN GRAMMES)
H49	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS UNDER 20
H50	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS AGED 20-24
H51	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS AGED 25-29
H52	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS AGED 30-34
H53	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS AGED 35 +
H54	MEAN WEIGHT LEVEL FOR BIRTHS SOCIAL CLASS UNSPECIFIED
H55	MEAN WEIGHT LEVEL FOR BIRTHS IN SOCIAL CLASS I
H56	MEAN WEIGHT LEVEL FOR BIRTHS IN SOCIAL CLASS II
H57	MEAN WEIGHT LEVEL FOR BIRTHS IN SOCIAL CLASS III NON MAN
H58	MEAN WEIGHT LEVEL FOR BIRTHS IN SOCIAL CLASS III MANUAL
H59	MEAN WEIGHT LEVEL FOR BIRTHS IN SOCIAL CLASS IV
H60	MEAN WEIGHT LEVEL FOR BIRTHS IN SOCIAL CLASS V
H61	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS OF PARITY 0
H62	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS OF PARITY 1
H63	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS OF PARITY 2
H64	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS OF PARITY 3
H65	MEAN WEIGHT LEVEL FOR BIRTHS TO MOTHERS OF PARITY 4 +
H66	MEAN AGE (IN YEARS) OF MOTHERS GIVING BIRTH 1978-80
H67	NUMBER OF INFANT DEATHS (UNDER 1 YEAR) 1978-80

APPENDIX 4. DATAPAC code numbers and full definitions for variables included in the 1978-80 infant mortality file for 1981 wards

[H68]	INFANT DEATHS TO LEEDS RESIDENTS 1978-80
[H69]	MALE INFANT DEATHS
[H70]	FEMALE INFANT DEATHS
[H71]	BIRTHS TO LEEDS RESIDENTS 1978-80
[H72]	HOME BIRTH INFANT DEATHS
[H73]	HOSPITAL BIRTH INFANT DEATHS
[H74]	INFANT DEATHS (PLACE OF CONFINEMENT "OTHER")
[H75]	INFANT DEATHS TO MOTHERS CONCEIVING UNDER 20 YEARS OF AGE
[H76]	INFANT DEATHS TO MOTHERS CONCEIVING AGED 20-24
[H77]	INFANT DEATHS TO MOTHERS CONCEIVING AGED 25-29
[H78]	INFANT DEATHS TO MOTHERS CONCEIVING AGED 30-34
[H79]	INFANT DEATHS TO MOTHERS CONCEIVING AGED 35 AND OVER
[H80]	INFANT DEATHS FROM V. LOW WEIGHT BIRTHS UNDER 2,500 GMS
[H81]	INFANT DEATHS FROM LOW WEIGHT BIRTHS 2,500-2,999 GMS
[H82]	INFANT DEATHS FROM BIRTHS AVERAGE WEIGHT 3,000-3,499 GMS
[H83]	INFANT DEATHS FROM HIGH WEIGHT BIRTHS 3,500-3,999 GMS
[H84]	INFANT DEATHS FROM V.HIGH WEIGHT BIRTHS OVER 4,000 GMS
[H85]	INFANT DEATHS (SOCIAL CLASS UNSPECIFIED)
[H86]	INFANT DEATHS IN SOCIAL CLASS I
[H87]	INFANT DEATHS IN SOCIAL CLASS II
[H88]	INFANT DEATHS IN SOCIAL CLASS III NON MANUAL
[H89]	INFANT DEATHS IN SOCIAL CLASS III MANUAL
[H90]	INFANT DEATHS IN SOCIAL CLASS IV
[H91]	INFANT DEATHS IN SOCIAL CLASS V
[H92]	INFANT DEATHS TO MOTHERS BORN GREAT BRITAIN & N.IRELAND
[H93]	INFANT DEATHS TO MOTHERS BORN IRISH REPUBLIC
[H94]	INFANT DEATHS TO MOTHERS BORN OLD COMMONWEALTH
[H95]	INFANT DEATHS TO MOTHERS BORN NEW COMMONWEALTH & PAKISTAN
[H96]	INFANT DEATHS TO MOTHERS BORN ELSEWHERE OR NOT STATED
[H97]	INFANT DEATHS FATHERS BORN GREAT BRITAIN & N.IRELAND
[H98]	INFANT DEATHS FATHERS BORN IRISH REPUBLIC
[H99]	INFANT DEATHS FATHERS BORN OLD COMMONWEALTH
[H100]	INFANT DEATHS FATHERS BORN NEW COMMONWEALTH & PAKISTAN
[H101]	INFANT DEATHS FATHERS BORN ELSEWHERE OR NOT STATED
[H102]	INFANT DEATHS TO MOTHERS WITH NO PREVIOUS LIVE BIRTHS
[H103]	INFANT DEATHS TO MOTHERS WITH 1 PREVIOUS LIVE BIRTH
[H104]	INFANT DEATHS TO MOTHERS WITH 2 PREVIOUS LIVE BIRTHS
[H105]	INFANT DEATHS TO MOTHERS WITH 3 PREVIOUS LIVE BIRTHS
[H106]	INFANT DEATHS TO MOTHERS WITH 4+ PREVIOUS LIVE BIRTHS
[H107]	INFANT DEATHS FROM WINTER BIRTHS (DEC - JAN - FEB)
[H108]	INFANT DEATHS FROM SPRING BIRTHS (MAR - APR - MAY)
[H109]	INFANT DEATHS FROM SUMMER BIRTHS (JUN - JUL - AUG)
[H110]	INFANT DEATHS FROM AUTUMN BIRTHS (SEP - OCT - NOV)
[H111]	AVERAGE BIRTH WEIGHT IN GRAMMES FOR INFANT MORTALITIES
[H112]	NEONATAL DEATHS (WITHIN FIRST 28 DAYS OF LIFE)
[H113]	POST-NEONATAL DEATHS (29TH DAY TO 1ST YEAR OF LIFE)
[H114]	TOTAL INFANT MORTALITY RATE PER 1,000 LIVE BIRTHS
[H115]	MEAN AGE OF MOTHER AT TIME OF INFANT'S BIRTH (WHOLE YEARS)

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APPENDIX 5. DATAPAC code numbers and full definitions for variables included in the 1978 selected mortality statistics file for 1981 wards

DATA ON GENERAL MORTALITY FOR 1978 COVERING THE 1981 LEEDS WARDS (FILE 14)

K E Y T O A B B R E V I A T I O N S (See Datapac Manual)

NEOPLASM D	NEOPLASMS - ALL KINDS	DIRECT CAUSE OF DEATH	ICD 140-239
NEOP MISC D	NEOPLASMS UNSPECIFIED	DIRECT CAUSE	ICD 230-239
CIRCULATION D	CIRCULATORY DISEASES	DIRECT CAUSE	ICD 390-458
ISCHAEMIC HD D	ISCHAEMIC HEART DISEASE	DIRECT CAUSE	ICD 410-414
CEREBROVASC D	CEREBROVASCULAR DISEASE	DIRECT CAUSE	ICD 430-438
MISC HEART D	HEART DISEASE UNSPECIFIED	DIRECT CAUSE	ICD 420-429
RESPIRATORY D	RESPIRATORY DISEASES	DIRECT CAUSE	ICD 460-519
PNEUMONIA D	PNEUMONIA - ALL KINDS	DIRECT CAUSE	ICD 480-486
NEOPLASM U	NEOPLASMS - ALL KINDS	UNDERLYING CAUSE OF DEATH	ICD 140-239
CIRCULATION U	CIRCULATORY DISEASES	UNDERLYING CAUSE	ICD 390-458
ISCHAEMIC HD U	ISCHAEMIC HEART DISEASE	UNDERLYING CAUSE	ICD 410-414
CEREBROVASC U	CEREBROVASCULAR DISEASE	UNDERLYING CAUSE	ICD 430-438
RESPIRATORY U	RESPIRATORY DISEASES	UNDERLYING CAUSE	ICD 460-519
PNEUMONIA U	PNEUMONIA - ALL KINDS	UNDERLYING CAUSE	ICD 480-486
DIGESTIVE U	DIGESTIVE DISEASES	UNDERLYING CAUSE	ICD 520-577

ICD = INTERNATIONAL CLASSIFICATION OF DISEASES (9TH REVISION: W.H.O)
S.M.R. = STANDARDISED MORTALITY RATIO

H116	MALES AGED 0-4	1981 CENSUS	H136	MALE DEATHS BETWEEN 0-4		1978
H117	MALES AGED 5-14	1981 CENSUS	H137	MALE DEATHS BETWEEN 5-14		1978
H118	MALES AGED 15-24	1981 CENSUS	H138	MALE DEATHS BETWEEN 15-24		1978
H119	MALES AGED 25-34	1981 CENSUS	H139	MALE DEATHS BETWEEN 25-34		1978
H120	MALES AGED 35-44	1981 CENSUS	H140	MALE DEATHS BETWEEN 35-44		1978
H121	MALES AGED 45-54	1981 CENSUS	H141	MALE DEATHS BETWEEN 45-54		1978
H122	MALES AGED 55-64	1981 CENSUS	H142	MALE DEATHS BETWEEN 55-64		1978
H123	MALES AGED 65-74	1981 CENSUS	H143	MALE DEATHS BETWEEN 65-74		1978
H124	MALES AGED 75 +	1981 CENSUS	H144	MALE DEATHS AT 75 +		1978
H125	MALES ALL AGES	1981 CENSUS	H145	MALE DEATHS ALL AGES		1978
H126	FEMALES AGED 0-4	1981 CENSUS	H146	FEMALE DEATHS BETWEEN 0-4		1978
H127	FEMALES AGED 5-14	1981 CENSUS	H147	FEMALE DEATHS BETWEEN 5-14		1978
H128	FEMALES AGED 15-24	1981 CENSUS	H148	FEMALE DEATHS BETWEEN 15-24		1978
H129	FEMALES AGED 25-34	1981 CENSUS	H149	FEMALE DEATHS BETWEEN 25-34		1978
H130	FEMALES AGED 35-44	1981 CENSUS	H150	FEMALE DEATHS BETWEEN 35-44		1978
H131	FEMALES AGED 45-54	1981 CENSUS	H151	FEMALE DEATHS BETWEEN 45-54		1978
H132	FEMALES AGED 55-64	1981 CENSUS	H152	FEMALE DEATHS BETWEEN 55-64		1978
H133	FEMALES AGED 65-74	1981 CENSUS	H153	FEMALE DEATHS BETWEEN 65-74		1978
H134	FEMALES AGED 75 +	1981 CENSUS	H154	FEMALE DEATHS AT 75 +		1978
H135	FEMALES ALL AGES	1981 CENSUS	H155	FEMALE DEATHS ALL AGES		1978
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H156	MALE DEATHS 0-4	NEOPLASM D	H176	MALE DEATHS 15-24	NEOP MISC D	
H157	MALE DEATHS 5-14	NEOPLASM D	H177	MALE DEATHS 25-34	NEOP MISC D	
H158	MALE DEATHS 15-24	NEOPLASM D	H178	MALE DEATHS 35-44	NEOP MISC D	
H159	MALE DEATHS 25-34	NEOPLASM D	H179	MALE DEATHS 45-54	NEOP MISC D	
H160	MALE DEATHS 35-44	NEOPLASM D	H180	MALE DEATHS 55-64	NEOP MISC D	
H161	MALE DEATHS 45-54	NEOPLASM D	H181	MALE DEATHS 65-74	NEOP MISC D	
H162	MALE DEATHS 55-64	NEOPLASM D	H182	MALE DEATHS 75 +	NEOP MISC D	
H163	MALE DEATHS 65-74	NEOPLASM D	H183	FEMALE DEATHS 0-4	NEOP MISC D	
H164	MALE DEATHS 75 +	NEOPLASM D	H184	FEMALE DEATHS 5-14	NEOP MISC D	
H165	FEMALE DEATHS 0-4	NEOPLASM D	H185	FEMALE DEATHS 15-24	NEOP MISC D	

APPENDIX 5. Continued

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M166  FEMALE DEATHS 5-14  NEOPLASM D  ! M186  FEMALE DEATHS 25-34 NEOP MISC D
M167  FEMALE DEATHS 15-24 NEOPLASM D  ! M187  FEMALE DEATHS 35-44 NEOP MISC D
M168  FEMALE DEATHS 25-34 NEOPLASM D  ! M188  FEMALE DEATHS 45-54 NEOP MISC D
M169  FEMALE DEATHS 35-44 NEOPLASM D  ! M189  FEMALE DEATHS 55-64 NEOP MISC D
M170  FEMALE DEATHS 45-54 NEOPLASM D  ! M190  FEMALE DEATHS 65-74 NEOP MISC D
M171  FEMALE DEATHS 55-64 NEOPLASM D  ! M191  FEMALE DEATHS 75 +  NEOP MISC D
M172  FEMALE DEATHS 65-74 NEOPLASM D  !
M173  FEMALE DEATHS 75 +  NEOPLASM D  !
M174  MALE   DEATHS 0-4   NEOP MISC D !
M175  MALE   DEATHS 5-14  NEOP MISC D !
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M192  MALE DTHS  0-4  CIRCULATION D  ! M210  MALE DTHS   0-4   ISCHAEMIC HD D
M193  MALE DTHS  5-14 CIRCULATION D  ! M211  MALE DTHS   5-14  ISCHAEMIC HD D
M194  MALE DTHS 15-24 CIRCULATION D  ! M212  MALE DTHS  15-24  ISCHAEMIC HD D
M195  MALE DTHS 25-34 CIRCULATION D  ! M213  MALE DTHS  25-34  ISCHAEMIC HD D
M196  MALE DTHS 35-44 CIRCULATION D  ! M214  MALE DTHS  35-44  ISCHAEMIC HD D
M197  MALE DTHS 45-54 CIRCULATION D  ! M215  MALE DTHS  45-54  ISCHAEMIC HD D
M198  MALE DTHS 55-64 CIRCULATION D  ! M216  MALE DTHS  55-64  ISCHAEMIC HD D
M199  MALE DTHS 65-74 CIRCULATION D  ! M217  MALE DTHS  65-74  ISCHAEMIC HD D
M200  MALE DTHS 75 +  CIRCULATION D  ! M218  MALE DTHS   75+   ISCHAEMIC HD D
M201  FEMALE DTHS 0-4   CIRCULATION D! M219  FEMALE DTHS  0-4   ISCHAEMIC HD D
M202  FEMALE DTHS 5-14  CIRCULATION D! M220  FEMALE DTHS  5-14  ISCHAEMIC HD D
M203  FEMALE DTHS 15-24 CIRCULATION D! M221  FEMALE DTHS 15-24  ISCHAEMIC HD D
M204  FEMALE DTHS 25-34 CIRCULATION D! M222  FEMALE DTHS 25-34  ISCHAEMIC HD D
M205  FEMALE DTHS 35-44 CIRCULATION D! M223  FEMALE DTHS 35-44  ISCHAEMIC HD D
M206  FEMALE DTHS 45-54 CIRCULATION D! M224  FEMALE DTHS 45-54  ISCHAEMIC HD D
M207  FEMALE DTHS 55-64 CIRCULATION D! M225  FEMALE DTHS 55-64  ISCHAEMIC HD D
M208  FEMALE DTHS 65-74 CIRCULATION D! M226  FEMALE DTHS 65-74  ISCHAEMIC HD D
M209  FEMALE DTHS 75 +  CIRCULATION D! M227  FEMALE DTHS  75 +  ISCHAEMIC HD D
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M228  MALE DTHS  0-4  CEREBROVASC D  ! M246  MALE DTHS   0-4   MISC HEART D
M229  MALE DTHS  5-14 CEREBROVASC D  ! M247  MALE DTHS   5-14  MISC HEART D
M230  MALE DTHS 15-24 CEREBROVASC D  ! M248  MALE DTHS  15-24  MISC HEART D
M231  MALE DTHS 25-34 CEREBROVASC D  ! M249  MALE DTHS  25-34  MISC HEART D
M232  MALE DTHS 35-44 CEREBROVASC D  ! M250  MALE DTHS  35-44  MISC HEART D
M233  MALE DTHS 45-54 CEREBROVASC D  ! M251  MALE DTHS  45-54  MISC HEART D
M234  MALE DTHS 55-64 CEREBROVASC D  ! M252  MALE DTHS  55-64  MISC HEART D
M235  MALE DTHS 65-74 CEREBROVASC D  ! M253  MALE DTHS  65-74  MISC HEART D
M236  MALE DTHS 75 +  CEREBROVASC D  ! M254  MALE DTHS   75+   MISC HEART D
M237  FEMALE DTHS 0-4   CEREBROVASC D! M255  FEMALE DTHS  0-4   MISC HEART D
M238  FEMALE DTHS 5-14  CEREBROVASC D! M256  FEMALE DTHS  5-14  MISC HEART D
M239  FEMALE DTHS 15-24 CEREBROVASC D! M257  FEMALE DTHS 15-24  MISC HEART D
M240  FEMALE DTHS 25-34 CEREBROVASC D! M258  FEMALE DTHS 25-34  MISC HEART D
M241  FEMALE DTHS 35-44 CEREBROVASC D! M259  FEMALE DTHS 35-44  MISC HEART D
M242  FEMALE DTHS 45-54 CEREBROVASC D! M260  FEMALE DTHS 45-54  MISC HEART D
M243  FEMALE DTHS 55-64 CEREBROVASC D! M261  FEMALE DTHS 55-64  MISC HEART D
M244  FEMALE DTHS 65-74 CEREBROVASC D! M262  FEMALE DTHS 65-74  MISC HEART D
M245  FEMALE DTHS 75 +  CEREBROVASC D! M263  FEMALE DTHS  75 +  MISC HEART D

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M264  MALE DTHS  0-4  RESPIRATORY D  ! M282  MALE DTHS   0-4   PNEUMONIA D
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APPENDIX 5. Continued

H265	MALE	DTHS	5-14	RESPIRATORY	D	H283	MALE	DTHS	5-14	PNEUMONIA	D
H266	MALE	DTHS	15-24	RESPIRATORY	D	H284	MALE	DTHS	15-24	PNEUMONIA	D
H267	MALE	DTHS	25-34	RESPIRATORY	D	H285	MALE	DTHS	25-34	PNEUMONIA	D
H268	MALE	DTHS	35-44	RESPIRATORY	D	H286	MALE	DTHS	35-44	PNEUMONIA	D
H269	MALE	DTHS	45-54	RESPIRATORY	D	H287	MALE	DTHS	45-54	PNEUMONIA	D
H270	MALE	DTHS	55-64	RESPIRATORY	D	H288	MALE	DTHS	55-64	PNEUMONIA	D
H271	MALE	DTHS	65-74	RESPIRATORY	D	H289	MALE	DTHS	65-74	PNEUMONIA	D
H272	MALE	DTHS	75 +	RESPIRATORY	D	H290	MALE	DTHS	75+	PNEUMONIA	D
H273	FEMALE	DTHS	0-4	RESPIRATORY	D	H291	FEMALE	DTHS	0-4	PNEUMONIA	D
H274	FEMALE	DTHS	5-14	RESPIRATORY	D	H292	FEMALE	DTHS	5-14	PNEUMONIA	D
H275	FEMALE	DTHS	15-24	RESPIRATORY	D	H293	FEMALE	DTHS	15-24	PNEUMONIA	D
H276	FEMALE	DTHS	25-34	RESPIRATORY	D	H294	FEMALE	DTHS	25-34	PNEUMONIA	D
H277	FEMALE	DTHS	35-44	RESPIRATORY	D	H295	FEMALE	DTHS	35-44	PNEUMONIA	D
H278	FEMALE	DTHS	45-54	RESPIRATORY	D	H296	FEMALE	DTHS	45-54	PNEUMONIA	D
H279	FEMALE	DTHS	55-64	RESPIRATORY	D	H297	FEMALE	DTHS	55-64	PNEUMONIA	D
H280	FEMALE	DTHS	65-74	RESPIRATORY	D	H298	FEMALE	DTHS	65-74	PNEUMONIA	D
H281	FEMALE	DTHS	75 +	RESPIRATORY	D	H299	FEMALE	DTHS	75 +	PNEUMONIA	D

U N D E R L Y I N G C A U S E S (U)

H300	MALE	DTHS	0-4	NEOPLASMS	U	H318	MALE	DTHS	0-4	CIRCULATION	U
H301	MALE	DTHS	5-14	NEOPLASMS	U	H319	MALE	DTHS	5-14	CIRCULATION	U
H302	MALE	DTHS	15-24	NEOPLASMS	U	H320	MALE	DTHS	15-24	CIRCULATION	U
H303	MALE	DTHS	25-34	NEOPLASMS	U	H321	MALE	DTHS	25-34	CIRCULATION	U
H304	MALE	DTHS	35-44	NEOPLASMS	U	H322	MALE	DTHS	35-44	CIRCULATION	U
H305	MALE	DTHS	45-54	NEOPLASMS	U	H323	MALE	DTHS	45-54	CIRCULATION	U
H306	MALE	DTHS	55-64	NEOPLASMS	U	H324	MALE	DTHS	55-64	CIRCULATION	U
H307	MALE	DTHS	65-74	NEOPLASMS	U	H325	MALE	DTHS	65-74	CIRCULATION	U
H308	MALE	DTHS	75 +	NEOPLASMS	U	H326	MALE	DTHS	75+	CIRCULATION	U
H309	FEMALE	DTHS	0-4	NEOPLASMS	U	H327	FEMALE	DTHS	0-4	CIRCULATION	U
H310	FEMALE	DTHS	5-14	NEOPLASMS	U	H328	FEMALE	DTHS	5-14	CIRCULATION	U
H311	FEMALE	DTHS	15-24	NEOPLASMS	U	H329	FEMALE	DTHS	15-24	CIRCULATION	U
H312	FEMALE	DTHS	25-34	NEOPLASMS	U	H330	FEMALE	DTHS	25-34	CIRCULATION	U
H313	FEMALE	DTHS	35-44	NEOPLASMS	U	H331	FEMALE	DTHS	35-44	CIRCULATION	U
H314	FEMALE	DTHS	45-54	NEOPLASMS	U	H332	FEMALE	DTHS	45-54	CIRCULATION	U
H315	FEMALE	DTHS	55-64	NEOPLASMS	U	H333	FEMALE	DTHS	55-64	CIRCULATION	U
H316	FEMALE	DTHS	65-74	NEOPLASMS	U	H334	FEMALE	DTHS	65-74	CIRCULATION	U
H317	FEMALE	DTHS	75 +	NEOPLASMS	U	H335	FEMALE	DTHS	75 +	CIRCULATION	U

H336	MALE	DTHS	0-4	ISCHAEMIC	U	H354	MALE	DTHS	0-4	CEREBROVASC	U
H337	MALE	DTHS	5-14	ISCHAEMIC	U	H355	MALE	DTHS	5-14	CEREBROVASC	U
H338	MALE	DTHS	15-24	ISCHAEMIC	U	H356	MALE	DTHS	15-24	CEREBROVASC	U
H339	MALE	DTHS	25-34	ISCHAEMIC	U	H357	MALE	DTHS	25-34	CEREBROVASC	U
H340	MALE	DTHS	35-44	ISCHAEMIC	U	H358	MALE	DTHS	35-44	CEREBROVASC	U
H341	MALE	DTHS	45-54	ISCHAEMIC	U	H359	MALE	DTHS	45-54	CEREBROVASC	U
H342	MALE	DTHS	55-64	ISCHAEMIC	U	H360	MALE	DTHS	55-64	CEREBROVASC	U
H343	MALE	DTHS	65-74	ISCHAEMIC	U	H361	MALE	DTHS	65-74	CEREBROVASC	U
H344	MALE	DTHS	75 +	ISCHAEMIC	U	H362	MALE	DTHS	75+	CEREBROVASC	U
H345	FEMALE	DTHS	0-4	ISCHAEMIC	U	H363	FEMALE	DTHS	0-4	CEREBROVASC	U
H346	FEMALE	DTHS	5-14	ISCHAEMIC	U	H364	FEMALE	DTHS	5-14	CEREBROVASC	U
H347	FEMALE	DTHS	15-24	ISCHAEMIC	U	H365	FEMALE	DTHS	15-24	CEREBROVASC	U
H348	FEMALE	DTHS	25-34	ISCHAEMIC	U	H366	FEMALE	DTHS	25-34	CEREBROVASC	U
H349	FEMALE	DTHS	35-44	ISCHAEMIC	U	H367	FEMALE	DTHS	35-44	CEREBROVASC	U

APPENDIX 5. Continued

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H350  FEMALE DTHS 45-54 ISCHAEMIC U! H368  FEMALE DTHS 45-54 CEREBROVASC U
H351  FEMALE DTHS 55-64 ISCHAEMIC U! H369  FEMALE DTHS 55-64 CEREBROVASC U
H352  FEMALE DTHS 65-74 ISCHAEMIC U! H370  FEMALE DTHS 65-74 CEREBROVASC U
H353  FEMALE DTHS 75 +  ISCHAEMIC U! H371  FEMALE DTHS  75 + CEREBROVASC U

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H372  MALE DTHS  0-4  RESPIRATORY U  ! H390  MALE DTHS   0-4   PNEUMONIA U
H373  MALE DTHS  5-14 RESPIRATORY U  ! H391  MALE DTHS   5-14  PNEUMONIA U
H374  MALE DTHS 15-24 RESPIRATORY U  ! H392  MALE DTHS  15-24  PNEUMONIA U
H375  MALE DTHS 25-34 RESPIRATORY U  ! H393  MALE DTHS  25-34  PNEUMONIA U
H376  MALE DTHS 35-44 RESPIRATORY U  ! H394  MALE DTHS  35-44  PNEUMONIA U
H377  MALE DTHS 45-54 RESPIRATORY U  ! H395  MALE DTHS  45-54  PNEUMONIA U
H378  MALE DTHS 55-64 RESPIRATORY U  ! H396  MALE DTHS  55-64  PNEUMONIA U
H379  MALE DTHS 65-74 RESPIRATORY U  ! H397  MALE DTHS  65-74  PNEUMONIA U
H380  MALE DTHS 75 +  RESPIRATORY U  ! H398  MALE DTHS  75+    PNEUMONIA U
H381  FEMALE DTHS 0-4   RESPIRATORY U! H399  FEMALE DTHS  0-4  PNEUMONIA U
H382  FEMALE DTHS 5-14  RESPIRATORY U! H400  FEMALE DTHS  5-14 PNEUMONIA U
H383  FEMALE DTHS 15-24 RESPIRATORY U! H401  FEMALE DTHS 15-24 PNEUMONIA U
H384  FEMALE DTHS 25-34 RESPIRATORY U! H402  FEMALE DTHS 25-34 PNEUMONIA U
H385  FEMALE DTHS 35-44 RESPIRATORY U! H403  FEMALE DTHS 35-44 PNEUMONIA U
H386  FEMALE DTHS 45-54 RESPIRATORY U! H404  FEMALE DTHS 45-54 PNEUMONIA U
H387  FEMALE DTHS 55-64 RESPIRATORY U! H405  FEMALE DTHS 55-64 PNEUMONIA U
H388  FEMALE DTHS 65-74 RESPIRATORY U! H406  FEMALE DTHS 65-74 PNEUMONIA U
H389  FEMALE DTHS 75 +  RESPIRATORY U! H407  FEMALE DTHS  75 + PNEUMONIA U

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H408  MALE DTHS  0-4  DIGESTIVE U  ! H426  S.M.R. ALL DEATHS MALES
H409  MALE DTHS  5-14 DIGESTIVE U  ! H427  S.M.R. ALL DEATHS FEMALES
H410  MALE DTHS 15-24 DIGESTIVE U  ! H428  S.M.R. NEOPLASMS MALES D
H411  MALE DTHS 25-34 DIGESTIVE U  ! H429  S.M.R. NEOPLASMS FEMALES D
H412  MALE DTHS 35-44 DIGESTIVE U  ! H430  S.M.R. MISC NEOPLASMS MALES D
H413  MALE DTHS 45-54 DIGESTIVE U  ! H431  S.M.R. MISC NEOPLASMS FEMALES D
H414  MALE DTHS 55-64 DIGESTIVE U  ! H432  S.M.R. CIRCULATION MALES D
H415  MALE DTHS 65-74 DIGESTIVE U  ! H433  S.M.R. CIRCULATION FEMALES D
H416  MALE DTHS 75 +  DIGESTIVE U  ! H434  S.M.R. ISCHAEMIC HD MALES D
H417  FEMALE DTHS 0-4   DIGESTIVE U! H435  S.M.R. ISCHAEMIC HD FEMALES D
H418  FEMALE DTHS 5-14  DIGESTIVE U! H436  S.M.R. CEREBROVASCULAR MALES D
H419  FEMALE DTHS 15-24 DIGESTIVE U! H437  S.M.R. CEREBROVASCULAR FEMALES D
H420  FEMALE DTHS 25-34 DIGESTIVE U! H438  S.M.R. MISC HEART DISEASE MALES D
H421  FEMALE DTHS 35-44 DIGESTIVE U! H439  S.M.R. MISC HEART DISEASE FEMALES
H422  FEMALE DTHS 45-54 DIGESTIVE U! H440  S.M.R. RESPIRATORY MALES D
H423  FEMALE DTHS 55-64 DIGESTIVE U! H441  S.M.R. RESPIRATORY FEMALES D
H424  FEMALE DTHS 65-74 DIGESTIVE U! H442  S.M.R. PNEUMONIA MALES D
H425  FEMALE DTHS 75 +  DIGESTIVE U! H443  S.M.R. PNEUMONIA FEMALES D

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H444  S.M.R. NEOPLASMS  MALES U      H450  S.M.R. CEREBROVASCULAR MALES U
H445  S.M.R. NEOPLASMS  FEMALES U    H451  S.M.R. CEREBROVASCULAR FEMALES U
H446  S.M.R. CIRCULATION  MALES U    H452  S.M.R. RESPIRATORY MALES U
H447  S.M.R. CIRCULATION FEMALES U   H453  S.M.R. RESPIRATORY FEMALES U
H448  S.M.R. ISCHAEMIC HD MALES U    H454  S.M.R. PNEUMONIA MALES U
H449  S.M.R. ISCHAEMIC HD FEMALES U  H455  S.M.R. PNEUMONIA FEMALES U
                                     H456  S.M.R. DIGESTIVE SYSTEM MALES U
                                     H457  S.M.R. DIGESTIVE SYSTEM FEMALES U
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APPENDIX 6. DATAPAC numbers and full definitions for variables included in the 1978 selected mortality statistics file for 1974 wards

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   DATA ON GENERAL MORTALITY FOR 1978 COVERING THE 1974 LEEDS WARDS (FILE 14

   K E Y   T O   A B R E V I A T I O N S  (See Datapac Manual
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PNEUMONIA D	PNUEMONIA ALL KINDS	DIRECT CAUSE	ICD 480-486
NEOPLASM U	NEOPLASMS ALL KINDS	UNDERLYING CAUSE OF DEATH	ICD 140-239
CIRCULATION U	CIRCULATORY DISEASES	UNDERLYING CAUSE	ICD 390-459
ISCHAEMIC HD U	ISCHAEMIC HEART DISEASE	UNDERLYING CAUSE	ICD 410-414
RESPIRATORY U	RESPIRATORY PROBS ALL KINDS	UNDERLYING CAUSE	ICD 460-519

1978 SURVEY = 1978 POPULATION SURVEY OF LEEDS M.D LEEDS CITY COUNCIL.
ICD = INTERNATIONAL CLASSIFICATION OF DISEASES (8TH REVISION 1965 W.H.O)
S.M.R = STANDARDISED MORTALITY RATIO

H458	MALES AGED 0-4	1978 SURVEY	H478	MALE DEATHS BETWEEN 0-4	19
H459	MALES AGED 5-14	1978 SURVEY	H479	MALE DEATHS BETWEEN 5-14	19
H460	MALES AGED 15-24	1978 SURVEY	H480	MALE DEATHS BETWEEN 15-24	19
H461	MALES AGED 25-34	1978 SURVEY	H481	MALE DEATHS BETWEEN 25-34	19
H462	MALES AGED 35-44	1978 SURVEY	H482	MALE DEATHS BETWEEN 35-44	19
H463	MALES AGED 45-54	1978 SURVEY	H483	MALE DEATHS BETWEEN 45-54	19
H464	MALES AGED 55-64	1978 SURVEY	H484	MALE DEATHS BETWEEN 55-64	19
H465	MALES AGED 65-74	1978 SURVEY	H485	MALE DEATHS BETWEEN 65-74	19
H466	MALES AGED 75 +	1978 SURVEY	H486	MALE DEATHS AT 75 +	19
H467	MALES ALL AGES	1978 SURVEY	H487	MALE DEATHS ALL AGES	19
H468	FEMALES AGED 0-4	1978 SURVEY	H488	FEMALE DEATHS BETWEEN 0-4	19
H469	FEMALES AGED 5-14	1978 SURVEY	H489	FEMALE DEATHS BETWEEN 5-14	19
H470	FEMALES AGED 15-24	1978 SURVEY	H490	FEMALE DEATHS BETWEEN 15-24	19
H471	FEMALES AGED 25-34	1978 SURVEY	H491	FEMALE DEATHS BETWEEN 25-34	19
H472	FEMALES AGED 35-44	1978 SURVEY	H492	FEMALE DEATHS BETWEEN 35-44	19
H473	FEMALES AGED 45-54	1978 SURVEY	H493	FEMALE DEATHS BETWEEN 45-54	19
H474	FEMALES AGED 55-64	1978 SURVEY	H494	FEMALE DEATHS BETWEEN 55-64	19
H475	FEMALES AGED 65-74	1978 SURVEY	H495	FEMALE DEATHS BETWEEN 65-74	19
H476	FEMALES AGED 75 +	1978 SURVEY	H496	FEMALE DEATHS AT 75 +	19
H477	FEMALES ALL AGES	1978 SURVEY	H497	FEMALE DEATHS ALL AGES	19

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D I R E C T C A U S E S O F D E A T H (

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H498	MALE DTHS 35-44	PNEUMONIA D
H499	MALE DTHS 45-54	PNEUMONIA D
H500	MALE DTHS 55-64	PNEUMONIA D
H501	MALE DTHS 65-74	PNEUMONIA D
H502	MALE DTHS 75+	PNEUMONIA D
H503	ALL MALE DTHS	PNEUMONIA D
H504	FEMALE DTHS 35-44	PNEUMONIA D
H505	FEMALE DTHS 45-54	PNEUMONIA D
H506	FEMALE DTHS 55-64	PNEUMONIA D
H507	FEMALE DTHS 65-74	PNEUMONIA D
H508	FEMALE DTHS 75 +	PNEUMONIA D
H509	ALL FEMALE DTHS	PNEUMONIA D

APPENDIX 6. Continued

	U N D E R L Y I N G		C A U S E S	(U)		
M510	MALE DTHS 35-44	NEOPLASMS U	M522	MALE DTHS 35-44	CIRCULATION U	
M511	MALE DTHS 45-54	NEOPLASMS U	M523	MALE DTHS 45-54	CIRCULATION U	
M512	MALE DTHS 55-64	NEOPLASMS U	M524	MALE DTHS 55-64	CIRCULATION U	
M513	MALE DTHS 65-74	NEOPLASMS U	M525	MALE DTHS 65-74	CIRCULATION U	
M514	MALE DTHS 75 +	NEOPLASMS U	M526	MALE DTHS 75+	CIRCULATION U	
M515	ALL MALE DTHS	NEOPLASMS U	M527	ALL MALE DTHS	CIRCULATION U	
M516	FEMALE DTHS 35-44	NEOPLASMS U	M528	FEMALE DTHS 35-44	CIRCULATION U	
M517	FEMALE DTHS 45-54	NEOPLASMS U	M529	FEMALE DTHS 45-54	CIRCULATION U	
M518	FEMALE DTHS 55-64	NEOPLASMS U	M530	FEMALE DTHS 55-64	CIRCULATION U	
M519	FEMALE DTHS 65-74	NEOPLASMS U	M531	FEMALE DTHS 65-74	CIRCULATION U	
M520	FEMALE DTHS 75 +	NEOPLASMS U	M532	FEMALE DTHS 75 +	CIRCULATION U	
M521	ALL FEMALE DTHS	NEOPLASMS U	M533	ALL FEMALE DTHS	CIRCULATION U	

M534	MALE DTHS 35-44	ISCHAEMIC U	M546	MALE DTHS 35-44	RESPIRATORY U
M535	MALE DTHS 45-54	ISCHAEMIC U	M547	MALE DTHS 45-54	RESPIRATORY U
M536	MALE DTHS 55-64	ISCHAEMIC U	M548	MALE DTHS 55-64	RESPIRATORY U
M537	MALE DTHS 65-74	ISCHAEMIC U	M549	MALE DTHS 65-74	RESPIRATORY U
M538	MALE DTHS 75 +	ISCHAEMIC U	M550	MALE DTHS 75+	RESPIRATORY U
M539	ALL MALE DTHS	ISCHAEMIC U	M551	ALL MALE DTHS	RESPIRATORY U
M540	FEMALE DTHS 35-44	ISCHAEMIC U	M552	FEMALE DTHS 35-44	RESPIRATORY U
M541	FEMALE DTHS 45-54	ISCHAEMIC U	M553	FEMALE DTHS 45-54	RESPIRATORY U
M542	FEMALE DTHS 55-64	ISCHAEMIC U	M554	FEMALE DTHS 55-64	RESPIRATORY U
M543	FEMALE DTHS 65-74	ISCHAEMIC U	M555	FEMALE DTHS 65-74	RESPIRATORY U
M544	FEMALE DTHS 75 +	ISCHAEMIC U	M556	FEMALE DTHS 75 +	RESPIRATORY U
M545	ALL FEMALE DTHS	ISCHAEMIC U	M557	ALL FEMALE DTHS	RESPIRATORY U

M558	S.M.R. ALL DEATHS MALES
M559	S.M.R. ALL DEATHS FEMALES
M560	S.M.R. PNEUMONIA MALES U
M561	S.M.R. PNEUMONIA FEMALES U
M562	S.M.R. MISC NEOPLASMS MALES U
M563	S.M.R. MISC NEOPLASMS FEMALES U
M564	S.M.R. CIRCULATION MALES U
M565	S.M.R. CIRCULATION FEMALES U
M566	S.M.R. ISCHAEMIC HD MALES U
M567	S.M.R. ISCHAEMIC HD FEMALES U
M568	S.M.R. RESPIRATORY MALES U
M569	S.M.R. RESPIRATORY FEMALES U

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