Appendix One
Methods of Sampling

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The sampling had a number of novel features and is described in full in this appendix. A multi-stage stratified design was used in which, with the exception of Belfast, every household had an equal probability of selection. Our aim was to achieve completed interviews with approximately 2,000 households in the United Kingdom.

The sampling procedure can be considered in four main phases:

1. The division of the United Kingdom into appropriate regions.
2. The selection of a primary area unit for sampling within each region and the selection of a suitable variable by which to stratify these units within each region.
3. The selection of suitable secondary area units within each primary area unit and the selection of a suitable stratification factor.
4. The final selection of addresses and conversion into a sample of households.

The Choice of Regions

The first question is the division of the United Kingdom into regions. Our object was to limit the number to as few as possible while preserving a representatively wide geographical spread of the eventual sample. A small number would allow reasonable methods of stratification to be applied so that about fifty areas could be selected - these fifty being about the maximum for effective and economical interviewing for an achieved sample of around 2,000 household interviews. Official statistics are usually based on the twelve standard regions of the United Kingdom or the eleven planning regions. These are identical, except for south-eastern England, as shown below.

Standard Regions

1. *South-Eastern*	Greater London, Surrey, Sussex and Kent.
2. *Eastern*	Bedfordshire, Hertfordshire, Essex, Suffolk, Norfolk, Cambridge and the Isle of Ely, Huntingdonshire.
3. *Southern*	Oxfordshire, Buckinghamshire, Berkshire, Hampshire and the Isle of Wight, Poole in Dorset.
4. *South-Western*	Gloucestershire, Wiltshire, Somerset, Dorset, Devon, Cornwall.
5. *West Midlands*	Herefordshire, Shropshire, Staffordshire, Warwickshire and Worcestershire.
6. *East Midlands*	part Derbyshire, Nottinghamshire, Lincolnshire (parts of Holland and Kesteven) Rutland, Leicestershire, Northamptonshire.

7. *North-Western*	Lancashire, Cheshire, part of Derbyshire.
8. *Yorkshire and Humberside*	West Riding of Yorkshire, East Riding of Yorkshire, Lindsay, part of Lincolnshire.
9. *Northern*	Cumberland, Westmorland, Northumberland, Durham and North Riding of Yorkshire.
10. *Wales*	
11. *Scotland*	
12. *Northern Ireland*	

The Planning Regions

Regions 4 to 12 are the same as above. The South-East of England is divided differently as follows :

South-East	Greater London, Surrey, Sussex, Kent, Essex, Bedfordshire, Hertfordshire, together with all the counties included in the Southern region above.
Anglia	Norfolk, Suffolk, Cambridge and Isle of Ely, Huntingdonshire.

The Family Expenditure Survey is based on the Planning Regions, except that Greater London is treated as a separate stratum.[1]

***Table A1.1**. The regional distribution of population and electorate.*

	Population (*June 1966*)		*Electorate* (*March 1966*)			
Region	*Number*	*%*	*Number*	*%*	*Number of constituencies*	*Number of administrative areas*
South-East	9,158,290	16.9	5,890,851	16.4	86	273
West Midlands	5,021,380	9.2	3,232,757	9.0	54	120
North-West	6,731,940	12.4	4,432,479	12.4	79	177
Northern and Yorkshire and Humberside	8,048,900	14.8	5,338,912	14.9	95	263
Scotland	5,190,800	9.5	3,344,859	9.3	71	372
Wales and South-West	6,320,230	11.7	4,150,882	11.6	78	353
Anglia and East Midlands	4,880,960	9.0	3,128,407	8.7	52	191
Greater London	7,913,600	14.6	5,423,849	15.1	103	33
Northern Ireland	1,469,000	2.7	902,301	2.5	12	67
Total	54,321,500	100	35,845,297	100	630	1,849

[1] See *Monthly Digest of Statistics Supplement,* Appendix 1, Central Statistical Office, HMSO, London, 1968.

We decided to treat Greater London separately, and to amalgamate some of the remaining regions, so that the quantity could be reduced to an economical number. There were several ways in which pairs of regions could have been amalgamated. For our purposes, variations in incomes between regions are important and, taking the criterion of average net income before tax per capita,[1] the richest region is the South-Eastern followed by the Eastern, Southern and West Midland regions. Next are the South-West, East Midland, North-West, Yorkshire and Humberside regions, with Wales, Scotland, the Northern region and Northern Ireland the poorest. There are, of course, big variations within certain regions, for example, the Eastern regions. As a whole, the planning region of Anglia is a low-income area, but, within it, Essex is a high-income area, and Hertford is very high. We therefore decided to use the planning regions, thus including Essex and Hertford with the South-East, but also to reduce the number, for example by combining Anglia with the East Midlands. The United Kingdom was divided into nine regions, as shown in Table A1.1.

At the next stage, we divided the primary area units in each region into a maximum of three strata: rural, high-income urban and low-income urban. We selected two primary units from each stratum so that standard errors could be calculated with some degree of accuracy. This whole procedure allowed us to restrict the sample to about fifty areas, which was necessary for practical and financial reasons.

The Selection of Primary Area Units within Regions

There are two units of area commonly used for sampling purposes: (a) *local-authority administrative areas* and (b) *constituencies.* In England and Wales, the administrative areas are the Greater London boroughs, county boroughs, municipal boroughs, urban districts and rural districts. In Scotland, administrative areas are cities, burghs and district councils. In Great Britain, there are 1,782 administrative areas which vary greatly in size. The Family Expenditure Survey uses the administrative areas of Great Britain as the primary sampling units and stratifies all of them except those in the Greater London Council area into four strata:

1. Administrative areas in provincial conurbations.
2. All urban areas not in provincial conurbations.
3. Semi-rural areas.
4. Rural areas.[2]

There are 630 constituencies in the United Kingdom. They vary in size much less than administrative areas, the majority of constituencies comprising an electorate of between 50,000 and 70,000.

Our choice between administrative areas and constituencies seemed, in principle, to depend on the availability of data, first by which to stratify, and secondly by which to compare the representativeness of the selected sample. If possible, it was also important to choose units of roughly comparable size.

[1] The data were based on an analysis of a personal incomes survey by the Board of Inland Revenue for 1964-5, by Coates, B. E, and Rawstron, E. M., *Guardian,* 10 April 1967.

[2] For a detailed description of the sample design of the Family Expenditure Survey, see Kemsley, W. F. F., *Family Expenditure Survey - Handbook on the Sample Fieldwork and Coding Procedures,* Government Social Survey, HMSO, London, 1969, pp. 8-20.

In terms of availability of data, local-authority administrative areas seemed at first sight to be the better choice. For each county borough, each administrative county, and for urban areas with populations above 50,000, there were a lot of published data in the census reports for 1961 and elsewhere. However, for rural districts there was less information, and published data were restricted to population size, density and structure, number of households, dwellings, amenities overcrowding and tenure. Some unpublished data for 1961 were available but based on a 10 per cent sample only.

The only data actually based on constituency areas were size of electorate and voting behaviour. But this did not cause us to rule constituencies out, for we found that amalgamations of data could achieve almost the same result. Very few constituencies are in two counties (there are three partly in Greater London and partly in Hertford, Kent or Surrey). Only one county borough does not fall within a single constituency. Altogether, fifty-three of the eighty-one county boroughs in England and Wales have boundaries coinciding exactly with constituency boundaries. Moreover, the names of the boroughs, urban districts and rural districts included in each constituency are known. So the data from the census can be used for constituencies as well as for administrative areas. In both instances, however, data for individual rural districts are very limited. There were no differences between administrative areas or, constituencies in availability of data for comparing the representativeness of the sample.

Administrative areas have the disadvantage, compared with constituencies, of varying greatly in population. The problem could have been overcome to some extent by amalgamating some of the smaller areas, though this would have been a complicated exercise. The final choice therefore seemed to depend on the availability of a stratification factor which would enable us to classify urban area units into high-income, middle-income and low-income areas.

The Stratification of Urban Areas

The 'J-index' has been used in previous national surveys as a stratification factor for urban areas. The J-index is the percentage of the parliamentary electorate qualified to serve as jurors.[1] Until 1967, the Family Expenditure Survey used the J-index based on the parliamentary electorate who in 1955 were qualified to serve as jurors. But, in 1963, rateable values were reassessed in England and Wales, and this reduced the power of J-index to discriminate between high- and low-income areas because the new assessment had increased the number eligible for jury service.

It was likely that, in 1968, we might still have found a high proportion of the very poor in areas where the J-index was low, but as we wanted to select a national sample *representative of all income groups,* this did not make it a suitable stratification factor for our purposes.

It was important to find, if possible, a *single* stratification factor. A composite factor could have been calculated using factors which indicate variations in the socio-economic status of an area - for example, percentage of overcrowded households, percentage of manual workers, percentage of the population under 15 years of age, and population density. As we wanted to limit the number of primary unit areas to about fifty, and at the same time to make regional

[1] The qualification for a juror (indicated by a J against the elector's name) was to be a householder resident in premises of a rateable value of £30 or more in London and Middlesex and of £20 or more elsewhere. See Kemsley, *Family Expenditure Survey,* p. 9.

comparisons, it would not have been possible to stratify by several factors unless they could have been weighted in a composite index. Instead, we looked for one factor which correlated highly with factors associated with low socioeconomic status. Voting behaviour defined as the

Table A1.2. *Correlations with percentage voting left at 1964 general election for county boroughs* (*Britain*).

Factor	*Correlation coefficient*
Workers in industry as % of occupied males	+0.6
Ratio of semi and unskilled manual workers to non-manual workers	+0.8
Percentage of population under 14 years	+0.5
Percentage of population over 25 years who left school at 15 or under	+0.7
Percentage of households without exclusive use of bath	+0.6
Percentage of households living less than 11 persons per room	-0.6
Administrative, managerial and professional workers as of economically active males	-0.8
Percentage of population over 25 years who finished education after 17 years of age	-0.7
Retail turnover *per capita*	-0.4

percentage of the electorate voting left was such a factor.[1] It is examined in Tables A1.2 and A1.3. There was a high positive correlation with factors associated with low income (high proportion of unskilled and semiskilled workers of population leaving school early and of households without a bath), and a high negative correlation with factors associated with high

Table A1.3. *Correlations with percentage voting left at 1964 general elections for county boroughs and counties together* (*Britain*).

Factor	*Correlation coefficient*	
	Voting left	*Population density*
Percentage of population over 25 years of age who finished education at 15 or sooner	+0.9	+0.5
Workers in heavy industry as % of occupied males	+0.5	+0.1
Males sick as % of economically active males	+0.5	+0.4
Percentage of households overcrowded	+0.5	+0.5
Administrative, managerial and professional workers as % of economically active males	-0.6	-0.3
Non-manual males as % of economically active males	-0.6	-0.4

[1] It was put forward for explanation by Professor Durbin and Professor Stuart of the London School of Economics. Voting left was defined as all those not voting for Conservative, Independent or Liberal candidates. The correlations used in Tables 2 and 3 were calculated by Bleddyn Davies and Peter Stone.

income (high proportion of managerial and professional workers and of population staying at school after the age of 17).

The correlation between socio-economic factors and voting behaviour was not as high when counties as well as county boroughs were taken into the reckoning, partly because there is a greater variation *within* such areas, which are also much larger. However, the correlation tended to be higher than between socio-economic factors and population density, a factor which we had considered using as an alternative (see Table A1.3).

Percentage of the electorate voting left at the 1964 general election was therefore chosen as the best available single stratification factor for urban areas. Since voting behaviour of local-authority administrative areas other than county boroughs or counties cannot be calculated, this meant that constituencies were necessarily chosen as the primary area units.

Rural Areas

Voting behaviour was not considered a suitable stratification factor for rural areas. In the first place, voting behaviour in very rural areas is not correlated highly with socioeconomic factors. Secondly, only about 20 per cent of the population live in rural areas, so further stratification is perhaps unnecessary. Using constituencies as the primary area units, we defined a rural constituency as a constituency in which more than 50 per cent of the population lives in rural districts and in which there is no urban district or borough larger than 30,000 population. The latter criterion is added as a check against those rural districts which have been substantially urbanized since their designation 'rural'.[1]

Sampling Procedure with Primary Area Units

The constituencies in Great Britain were divided, first, into rural and urban. In Northern Ireland, we treated Belfast as one stratum and the remaining eight constituencies as another. As there were only eight rural constituencies in the West Midlands (14.4 per cent of the electorate in the region), and only three in the North-West, it was decided to amalgamate them with the nineteen rural constituencies of Northern, Yorkshire and Humberside region (forming 19.9 per cent of the electorate in the region) to form a separate stratum from which two constituencies could be chosen. In the event, both the constituencies which were selected happened to be drawn from the West Midlands region, and this means that, when amalgamated with the urban results for the regions, the West Midlands is over-represented and the Northern Yorkshire and Humberside region under-represented. It should be remembered that the probability of a household being included in the sample was the same for all households in each stratum and therefore in both these regions.

No adjustment is made in Table A1.4 for the deliberate oversampling of households in Northern Ireland. We increased the sample in order to make possible a very broad comparison of conditions in that region with conditions in regions in Britain. As stated in Chapter 1, certain

[1] Since 1967, the definition of 'rural area' for the Family Expenditure Survey has been based on population density and size of population of urban areas within the rural district. See Kemsley, *Family Expenditure Survey*, p. 8.

Table A1.4. *Distribution of electorate and sample in different strata in each region.*

Region	*Number of constituencies*	*Stratum*	*Electorate* (*March 1966*)		*Poverty sample completed interviews*	
			Number	*%*	*Number*	*%*
South-East	16	Rural	1,088,343	3.0	56	3.0
	24	Poor	1,630,112	4.5	82	4.3
	24	Middle	1,661,027	4.6	79	4.2
	22	Rich	1,511,369	4.2	75	4.0
	86		5,890,951	16.4[a]	292	15.5
West Midlands	24	Poor	1,410,573	3.9	78	4.1
(urban)	22	Rich	1,353,516	3.8	77	4.1
	46		2,764,089	7.7	155	8.2
North-West	26	Poor	1,384,743	3.8	73	3.9
(urban)	24	Middle	1,311,628	3.7	70	3.7
	26	Rich	1,568,473	4.4	83	4.4
	76		4,264,844	11.9[a]	226	12.0
Northern, Yorkshire	26	Poor	1,382,301	3.9	85	4.5
and Humberside	24	Middle	1,563,228	4.4	78	4.1
(urban)	26	Rich	1,332,415	3.7	62	3.3
	76		4,277,944	11.9[a]	225	11.9
Scotland	29	Rural	1,331,248	3.7	82	4.3
	22	Poor	1,046,980	2.9	50	2.7
	20	Rich	966,631	2.7	50	2.7
	71		3,344,859	9.3	182	9.7
Wales, South-West	32	Rural	1,636,625	4.6	68	3.6
	24	Poor	1,244,122	3.5	62	3.3
	22	Rich	1,270,135	3.5	84	4.4
	78		4,150,882	11.6	214	11.3
Anglia and East	20	Rural	1,243,790	3.5	67	3.6
Midlands	32	Poor / Rich	1,884,617	5.2	95	5.0
	52		3,128,407	8.7	162	8.6
Greater London	34	Poor	1,643,438	4.6	88	4.7
	34	Middle	1,923,120	5.4	92	4.9
	35	Rich	1,857,291	5.2	91	4.8
	103		5,423,849	15.1[a]	271	14.4

***Table A1.4** - contd*

Region	*Number of constituencies*	*Stratum*	*Electorate* (*March 1966*)		*Poverty sample completed interviews*	
			Number	*%*	*Number*	*%*
West and North-West Midlands Northern Yorkshire and Humberside (rural)	30	Rural	1,695,207	4.7	72	3.8
Northern Ireland	4	Belfast	252,480	0.7	46	2.4
	8	Rural	649,821	1.8	41	2.2
	12		902,301	2.5	87	4.6
Total UK	630		35,845,297	100.0	1,886	100

NOTE: [a]Due to rounding, figures do not add up exactly to the total.

tables in the report describing the results from the whole UK sample have been adjusted to reflect the true proportion of households and population in Northern Ireland.

Bearing in mind the slight adjustment needing to be made for Northern Ireland, Table A1.4 shows that, for the different regions, the numbers interviewed were fairly representative. The rural parts of the West Midlands, the North-West and the Northern, Yorkshire and Humberside regions have been distinguished in the table from the urban parts of these regions because of the procedure described above.

In the regions where there are large numbers of urban constituencies - the South-East, Greater London, the North-West, Northern Yorkshire and Humberside - the constituencies were ranked in descending order of percentage voting left and divided into *three* strata denoting low-income, middle-income and high-income areas. In East Anglia and East Midlands, there were insufficient urban constituencies to justify two urban strata. The distribution of strata within each region is shown in Table A1.4 and Tables A1.4 and A1.5 compare the distribution of the electorate with that of the households in the sample who were finally interviewed. It should be noted that substantial proportions of the electorate fall into

***Table A1.5**. Percentage of households interviewed in each stratum* (*first stage*).

Stratum	*Electorate of UK*	*Households in poverty survey*
Rural	21.4	20.5
Low % voting left (rich)	27.5	27.7
Middle % voting left (middle)	23.2	21.9
High % voting left (poor)	27.1	27.5
(Belfast)	(0.7)	(2.4)
Total UK	100.0	100.0

each of the four strata which were evolved: rural, rich urban, middle-income urban and poor urban. The proportions of the eventual sample who were interviewed were broadly similar. For the percentage of the electorate voting left, Table A1.6 compares the urban constituencies selected for inclusion in the sample with all urban constituencies.

***Table A1.6**. Distribution of primary area units.*

Percentage of electorate voting left (*1966*)	*Urban constituencies in sample* (*excluding Northern Ireland*)		*Urban constituencies in Great Britain*
	Number	*%*	*%*
80 and over	1	(2.6)	4.7
70-80	3	(7.9)	12.0
60-70	9	(23.6)	19.6
50-60	10	(26.3)	29.6
40-50	9	(23.6)	21.4
30-40	5	(13.1)	10.6
Under 30	1	(2.6)	1.8
Total	38	100	100

Within each stratum constituencies were ranked in pairs in descending order of size of electorate. Using random numbers, two constituencies were selected with replacement in each stratum, with probability proportioned to size except in the event of selecting the same unit, when the opposite member of the pair was included in the sample.[1] In Northern Ireland, two constituencies were sampled in Belfast and one from the remaining rural constituencies. The full list of constituencies follows.

The Selected Constituencies

		Percentage voting left
Greater London	Woolwich East	71.6
	Islington North	65.9
	Lewisham North	53.0
	Hornchurch	52.3
	Wandsworth Streatham	45.4
	Hendon North	49.2
South-East	Thurrock	69.4
	Dartford	56.6
	S.-W. Hertfordshire	47.0
	Aylesbury	45.5
	Guildford	39.5

[1] The theoretical basis of the sample design is described in a paper by Durbin. See Durbin, J., Estimation of Sampling Errors in Multi-Stage Surveys', London School of Economics.

		Percentage voting left
South-East - *contd*	Bournemouth W.	38.8
	New Forest	Rural
	Lewes	Rural
Anglia and East Midlands	Ipswich	56.4
	Leicester S.-E.	40.1
	Melton	Rural
	Grantham	Rural
Wales and South-West	Neath	83.9
	Bristol South	67.1
	Gloucester	42.8
	Bristol West	29.5
	Yeovil (Somerset)	Rural
	North Devon	Rural
West Midlands	(R) Coventry East	67.8
	(R) Birmingham Northfield	59.6
	Brierley Hill	48.8
	Oldbury and Halesowen	53.2
North-West	Newton	62.8
	Salford East	67.2
	Manchester Wythenshawe	59.7
	Bolton East	59.2
	Southport	37.2
	North Fylde	36.7
Northern and Yorkshire and Humberside	Pontefract	78.3
	Bradford East	69.4
	South Shields	64.7
	Newcastle-on-Tyne East	59.8
	Leeds N.-W.	44.4
	Haltemprice	33.7
West Midlands, North-West, Northern and Yorkshire and Humberside	South Worcestershire	Rural
	Oswestry	Rural
Scotland	Glasgow Shettleston	77.5
	Coatbridge and Airdrie	64.1
	(R) Aberdeen South	52.0
	(R) Edinburgh West	44.7
	Galloway	Rural
	Kinross and W. Perthshire	Rural
Northern Ireland	Fermanagh and South Tyrone	Rural
	Belfast East	
	Belfast North	

R = Repeated selection, Edinburgh West and Birmingham Northfield were selected twice, so the second members of the pairs to which they belonged were selected, i.e. Aberdeen South and Coventry East.

Selection within Constituencies

Every constituency in England and Wales is made up of part of one or one borough, or several boroughs, urban districts or rural districts. There are further divisions: borough and urban districts are divided into wards, rural districts into parishes. In Scotland, the administrative districts are slightly different. There are cities, large burghs, small burghs and district councils. A constituency may consist of a number of wards in a city or large burgh, or small burghs and districts in rural areas.

The constituencies in the large conurbations may consist of only the part of a large metropolitan borough, whereas the constituencies in rural areas consist almost entirely of rural districts with one or two small boroughs or urban districts. Some urban constituencies are therefore divided into only three wards, each comprising 7,000 or 8,000 households, others into some fifteen wards, each comprising only 1,000 or 2,000 households. Rural constituencies may be divided into three or four wards and more than ninety parishes. Some parishes are very small. For example, some parishes in the constituency of South Worcestershire have a population of less than thirty. Therefore, before a selection was made, some of the very small parishes were grouped together.

Such grouping was carried out on a geographical basis. The main object was to reduce the amount of travelling to be done in rural areas. The most convenient grouping was, in most instances, based on county electoral divisions (divisions on which county council elections are based), together with the help of a map. This information was usually obtained from the clerk of each rural district council.

Stratification Factors

How could certain groups of addresses in large areas be selected? For wards and parishes, it was not possible to use voting figures from parliamentary elections since these are not given. There are several disadvantages in using voting figures in local elections. First, there is a far lower poll than in general elections, so the voting figures only refer to a small proportion of the population. Secondly, although in densely populated urban areas the distinction between parties is as clear as in national elections, in the more rural areas the distinction is blurred by the number of independent candidates. Thirdly, no data exist on how well voting behaviour in local elections correlates with characteristics associated with low income.

For wards and parishes, again, there is little information published in Census County Reports. Instead, we chose a stratification factor based on unpublished material from the 10 per cent sample of the 1961 Census obtained from the General Registrar's Office. The choice was made by looking at factors positively correlated with characteristics associated with low income and negatively correlated with those associated with high income. The best one available appeared to be the proportion of the population aged 25 years or more who had left school at the age of 15 or under. Data based on all administrative counties and county boroughs was used. The proportion of the population aged 25 and over who had left school early did not prove to be an ideal factor, because, of course, it was related in part to the age structure of the ward or groups of parishes. Few of the elderly had a lengthy schooling as children, and a

***Table A1.7**. Correlations with high proportion of population aged 25 and over leaving school early at 15 or under* (*administrative counties and county boroughs in Britain*).

Factor	*Correlation coefficient*
Ratio of semi-skilled and unskilled manual workers to non-manual male workers	+0.7
Infant mortality rate per 1,000 population (average for the 3 years 1960-62)	+0.5
Percentage of households overcrowded	+0.5
Non-manual male workers as % of economically active males	-0.8

population with a high proportion of elderly would tend as a whole to have a relatively high proportion of early leavers. However, despite this disadvantage it remained one of the best *single* factors *available* for our purposes.

Within each constituency, rural districts were treated separately from urban districts, boroughs and wards so that the final number of selected addresses could reflect the urban/rural composition of the constituency.

The proportion of the population aged 25 and over leaving school at 15 or under was calculated for each ward and county electoral division or group of parishes. Where the proportions varied widely, the wards were grouped into two strata, and within each stratum were ranked in descending order of size. If there was little difference then the wards were treated as a single stratum and arranged in descending order of size. A similar procedure was followed in the rural areas.

A ward or county electoral division was chosen for each stratum of each constituency with probability proportional to size (measured by number of *households*, not electorate). The number of interviews allocated to this ward or county electoral division equalled the product of the total number of interviews for the constituency and the proportion of the constituency households in the particular stratum. In the constituencies where a repeated selection had occurred, i.e. Birmingham and Coventry, Edinburgh and Aberdeen, a slightly different procedure was adopted. The number of interviews allocated to each constituency was divided into two equal samples. Two independent samples of wards were chosen with probability proportional to size. It did not matter that a particular ward occurred in both samples.

The Selection of Addresses

No national sampling frame of private households exists. A sample of households is usually obtained either by sampling addresses from the published electoral registers or by sampling rateable units from the rating records. Both of these sampling frames have disadvantages from the point of view of obtaining an up-to-date sample of households. To overcome these and obtain the most complete sampling frame, we explored the possibility of using either rating records or the records on which the electoral register was based. The Home Secretary gave his permission for us to approach electoral registration officers for access to their records. This usually meant that we had access to a list of addresses which, unlike the electoral register,

included dwellings which had been empty or only partly built and into which families had recently moved, as well as dwellings containing households none of whose members were eligible to vote. In effect, these lists allowed a more comprehensive and up-to-date sample to be drawn.

Rating Records

Use of rating records depended on several factors. In some areas it was possible only to have access to the valuation list. This is the main record of property in the district which local authorities are required by law to prepare and keep up to date. However, this does not mean valuation lists are rewritten every year: additions and deletions are recorded on additional pages as directed by the valuation officer of the Board of Inland Revenue. There may be some delay in the receipt of directives from the valuation officer notifying changes in value, new properties and demolitions. Although the time-lag for the addition of new buildings is not large, there can sometimes be a much greater delay in removing demolished buildings from the list, so there is the risk of including dwellings in the sample which no longer exist. Thus the valuation lists are not completely up to date, and the additional pages of amendments add considerable practical difficulties to sampling if only part of the district (i.e. one or two wards) is being sampled, since the amendments are arranged by year and not grouped by wards.

Secondly, in valuation lists a group of dwellings owned or managed by the same person or company, Crown property or council property, or a caravan site may be listed as a single entry although the total number of separate dwelling units is normally specified. For this reason, the number of units listed on a page varies considerably, making it difficult to handle large sampling intervals. To sample a large block of Crown property, for example, reference may have to be made to a separate list specifying individual dwellings, though, like the amendments, these lists may not be grouped in wards, so the sampling procedure is complicated. With a caravan site, there may be no indication of the number of occupied caravans, and although it is possible in theory to maintain equal probability of selection by interviewing *all* occupants of a rateable unit, this can have serious clustering effects when a large proportion of the sample of an area comes from one unit. It is therefore important to use a sampling frame whose units correspond as closely as possible to individual households.

Although the local authorities we approached were very cooperative, it was sometimes only possible for them to offer us use of valuation lists. In some instances, their rating lists were in the process of being computerized and therefore inaccessible for sampling purposes. In other authorities, their rating lists, being working documents, were in constant use, and it was felt that the practical problems involved in using them to draw a sample were too great. In these authorities, we explored through electoral registration offices the alternative of using the records on which the electoral register was based.

Thirdly, although access to rating lists was offered by some local authorities, they, too, were not always in a suitable form for sampling. Some rating lists had similar disadvantages to valuation lists. Amendments were often made on the relevant page, but sometimes were made on additional pages at the end. Some rating lists included council property or Crown property

in single dwelling units as they occurred geographically, others listed them separately for the whole area. In the latter case, if they were grouped by wards and formed a sizeable proportion of the total number of dwelling units, it was possible to treat these dwellings as a separate stratum and sample accordingly. In some local authorities, rating lists were arranged alphabetically by streets and not grouped by wards or parishes, thus making the sampling procedure very complicated if we only wanted to sample part of the area.

Altogether it was possible to use rating records for the whole of six constituencies and for part of a further eight constituencies in England and Wales. The rating records used for sampling in this survey were usually in the form of a card index - a separate card for each separate dwelling - arranged by ward or parish. In Scotland, it was possible to use the valuation rolls in four of the constituencies because in Scotland the register of electors is compiled by the assessor appointed under the Lands Valuation Acts. This makes it possible to use the valuation roll, which is reprinted annually, as a firm base when conducting the annual canvass in connection with the preparation of the register.

The Electoral Register

In every constituency in England included in our sample with the exception of one, we were given access to the records on which the electoral register is based. Although the format of these records varied in some respects, they were much more standardized than rating records. They were invariably grouped by wards, parishes or county electoral divisions, so there was no difficulty in defining our sampling frame. As the electoral register is prepared and printed annually, amendments do not accumulate from year to year, and even if not recorded in the relevant road or street, are at least grouped by ward or parish. The problem of block ownership did not occur as the electoral register is concerned with persons eligible to vote, so each occupant of a dwelling eligible to vote is recorded. Ownership of the dwelling is irrelevant, and therefore no distinction is made between local-authority, Crown or private property. Caravan sites still posed a problem because individual caravans were not always indicated, so we assumed persons with different names lived in different caravans and included them in the sample accordingly. By using the records on which the registers were based, it was hoped to give an equal chance of inclusion in our sample of households living either at addresses which were empty or at which no one entitled to vote was living at the time the canvass was made (in September and October).

The records were kept in several forms: sets of card indexes, files of Home Office Forms A and B, canvassers' notebooks, or the published electors' Lists A, B and C. Some constituencies compiled separate records of properties empty on the qualifying date, or which were occupied by people not qualified to be included in the register and also from the Borough Engineers' records compiled a list of new properties built since the publication of the current register.

Card indexes and files of Home Office Forms A and B (the form which all electors must complete and return by the qualifying date each year) were the simplest to use. Each card or form usually represented a single home or flat, and if more than one dwelling was represented on a card or form, this was usually clear. Addresses which were empty or at which no one was entitled to vote were sometimes included as they occurred, and sometimes indexed or filed separately. It was therefore a straightforward though tedious task to ascertain the total number

of separately identifiable dwellings in the selected wards, calculate the appropriate sampling fraction to give the requisite number of addresses for that ward or county electoral division and, with a random starting number, draw the sample.

Canvassers' notes usually consisted of the current register with amendments recorded on it, i.e. empty or non-elector addresses written in at appropriate points. Taking note of the additions, deletions, empty and non-elector addresses, a sample of addresses was drawn by using a random start and a sampling fraction based on the total number of addresses in the ward. In order to give each address an equal chance of selection, only addresses at which the sampling interval ended with the *first* elector listed at that address were included. In urban areas where names of electors are listed in address order by street or roads, it is very simple to ascertain the first elector, but in rural areas, electors are listed within polling districts by alphabetical order of surnames. Therefore, to establish whether the sampling interval has ended on the first entry for that address, it was necessary to search for the address among the names previously listed in the polling district.

Electors Lists A, B and C are published annually at the end of November and comprise the register currently in force (List A), a list of newly qualified electors (List B) and a list of persons from List A who are no longer qualified to be registered (List C). From List B it would be possible to identify addresses not included in the current register. In fact, we did not need to use these lists as a sampling frame. In the tiny minority of constituencies where canvassers' notes were not available, or where the electoral registration officer kept no separate record of empty or non-elector addresses, we found it easier and more thorough to ascertain the existence of addresses missing from the electoral register by reference to the rating lists.

Selection of Addresses in Northern Ireland

In Northern Ireland, the sampling procedure was slightly different. For practical and economic reasons, we had only sampled one rural constituency and took two wards in two different Belfast constituencies. To achieve approximately 100 completed interviews in Northern Ireland, we over-sampled households in Belfast so that the probability of selection for these households was three times that for households in the rest of the United Kingdom, and in Fermanagh and South Tyrone the probability was twice that for the rest of the United Kingdom.

In Belfast, we drew the sample from the electoral register as this was the most complete record of addresses suitable and accessible for use as a sampling frame. The sampling procedure was slightly more complicated because owners of business premises are entitled to an additional vote. We excluded business addresses at which no one resided, and counted only those addresses at which people were entitled to vote because they *lived at* the address, thus maintaining equal probability of selection for each household.

In the constituency of Fermanagh and South Tyrone, we also used the electoral register as a sampling frame, but were able to obtain information on empty and non-elector dwellings from the rate collectors and then include them in the sampling frame. In some of the rural areas, there were difficulties because electors are listed alphabetically by surnames and listed under a townland or village street. There were often *no* street numbers or names of houses, and therefore no way of knowing whether electors with the same name listed in a street or townland lived in the same or a different home. For the purpose of deciding whether the

sampling interval ended with the *first* entry for an address, we assumed that electors with the same surname listed in the same townland or street lived in the same house.

Conversion of Address Sample into Households

By common convention, *a household* consists of either one person living alone or a group of persons living together, having some or all meals together and benefiting from a common housekeeping. There are difficulties, however. We developed the following specific rules. Persons who have resided in a household for at least four weeks and are not expected to leave shortly, and persons who have resided in a household for less than four weeks and are not expected to leave again after that period, are counted as household members. Persons living but not boarding with a household in a house or flat are counted as a separate household. But if a person living with a household eats breakfast or any other meal with the household, he or she is counted as a part of the household. Persons living in an institution or hotel (e.g. staff) are treated as forming a private household when they occupy separate quarters (even a single room) and do not depend invariably on the institution's services for meals. Broadly speaking, *residents* of boarding houses and hotels (*not* temporary guests) and *resident staff* of hospitals, welfare homes, nursing homes and schools are counted as private households for the purposes of this survey. Even though different staff may have eaten many meals together and depend on a common housekeeping, they are counted as separate households if they occupy separate sleeping accommodation.

The addresses which were sampled by the procedure described earlier contained one household, several households or none. The translation from the address sample to household sample was made on the basis that each household had an equal chance of selection subject to the following qualification. To keep the probabilities correct, each household living at an address was treated as eligible for interview. If there were two households at an address, one address, and if there were three households, two addresses, were deleted from the end of the list. However, if a large number of households lived at one address, a large proportion of the sample for that particular ward would have come from the same address, introducing bias due to clustering effects. We therefore decided to interview all households living at an address subject to a maximum of *six.* We chose a higher maximum than is usual (in the Family Expenditure Survey a maximum of three is taken), because, in constituencies with a high proportion of multi-occupied property, it was felt that six households per multi-occupied address would reflect the actual situation more closely. In Islington North, for example, the average number of electors living at an address was approximately five, which was twice the national average. Among the sample of addresses, 4.3 per cent contained two or more households. This compares with 4.5 per cent in the Family Expenditure Survey of 1967.[1]

The addresses which did not contain a household comprised those dwellings which were empty, those no longer in existence and those containing no private households. Table A1.8 shows for each region the numbers of ineffective addresses. The address lists for each area were randomly divided into quarters with the intention of interviewing a quarter of the

[1] Kemsley, *Family Expenditure Survey*, p. 18.

addresses in each quarter of the year. If a household was away for the whole of a quarter (thirteen weeks), then that address was considered empty and therefore non-effective. If, however, the household was expected back within thirteen weeks, attempts were made to interview that household on its return. When no contact was made, or when no information could be obtained as to whether the household was away or not, the household was retained in the effective sample and regarded as a non-respondent. Households comprising aliens who were in this country only temporarily (e.g. members of the US Forces or the Diplomatic Corps of another country) were also excluded from the effective sample.

***Table A1.8**. Sample of addresses analysed by eligibility for inclusion in the sample.*

Region	*Total number of addresses issued*	*Address untraced*	*Empty*	*Business only*	*De-molished*	*Aliens*	*Ill and away*	*Ill at home*	*Away*	*Total number of households at effective addresses*
Northern Yorkshire and Humberside	308	-	11	1	1	1	-	4	-	290
North-West	317	1	13	1	1	-	-	4	-	298
East Midlands and East Anglia	227	1	9	-	-	2	1	-	3	211
Greater London	392	-	11	-	2	-	1	2	2	376[a]
West Midlands	322	3	12	-	1	-	2	4	2	298
South-East	420	2	11	1	1	-	-	2	1	402
South-West and Wales	304	-	13	-	-	2	-	2	1	286
Scotland	248	-	10	1	-	-	-	4	3	230
Northern Ireland	109	-	3	2	-	-	-	-	-	104
Total	2,647	6	93	6	6	5	4	22	12	2,495[a]

NOTE: [a]In the final stages of interviewing, two additional households were found at an address, and there were no unvisited addresses left which could be deleted in accordance with the procedure described for multiple households in the text.

Some Limitations of the Sample

We tried to overcome the defects of the electoral register as a sampling frame by using rating lists or the records on which the electoral registers were based as soon after they had been compiled as possible. We found that, as a result, approximately only one address in 100 was

included in the sample which would not otherwise have been included. In view of the additional time and trouble that the use of this sampling frame entailed, both for our interviewers and local government officers, and in view of the existence of more important sources of bias, in particular that due to non-response, it is difficult to conclude that such a procedure would be justified for future surveys, at least on subjects affecting all sections of the population rather, than say, poverty or homelessness, which affect only certain sections. Our purpose had been to obtain the most reliable sample for measuring the extent of poverty, and it seemed that even if the percentage of the population 'missed' by sampling from the electoral register was very small, it might include a disproportionately large number of poor families. The poor are liable to move more frequently than others, and to use caravans or other accommodation not always listed as containing electors. We felt it was therefore right in principle to obtain a more comprehensive sample, even at the cost of extra time and effort, though 1 per cent of additional addresses is smaller than expected.

There appeared to be little difference in the extent to which rating lists contained empty or demolished property as compared with the electoral register records. Approximately 3.7 per cent of addresses drawn from the former were for these reasons non-effective, compared with 3.5 per cent overall. Only in Scotland was it valuable to have access to the valuation rolls instead of the published electoral register. Unlike the register, the valuation rolls not only list the names of electors living in a particular tenement, but also indicate the location of their dwelling, e.g. third-floor landing, flat on the right-hand side. We did not therefore have to identify the dwelling by the name of the occupants which, while straightforward if the occupants have not changed since the register was compiled, is more complicated if the occupants have moved. Moreover, we wished to emphasize that all information given to us would be treated confidentially, so it was better not to have to ask for a household by name.

Because of the minority of addresses containing more than six households, we were unable to keep the probabilities of selection strictly so that each household had an equal chance of selection. As explained, this was a compromise between slightly reducing the probability of selecting households in addresses in large multiple occupation, and the clustering effect if the entire quarterly sample for an area had been concentrated at two or three addresses.

Table A1.9. *Characteristics of areas selected within constituencies.*

Constituency	*Total number of households 1961* (*1966 in brackets*)	*Ward or county electoral division selected*	*Percentage leaving school at 15 or earlier*	*Number of house-holds* (*1961*)	*Percentage distribution of households between strata*
GREATER LONDON					
Woolwich E.	22,509	St Margarets	63.8	2,545	50
101	(22,790)	Slade	81.0	2,427	50
Islington North	28,079	Tufnell	75.8	11,101	100
102	(26,280)				

Table A1.9. - *contd*

Constituency	*Total number of households 1961 (1966 in brackets)*		*Ward or county electoral division selected*	*Percentage leaving school at 15 or earlier*	*Number of house-holds (1961)*	*Percentage distribution of households between strata*
GREATER LONDON-*contd*						
Lewisham North 103	24,509 (23,420)		South Lee	69.9	5,808	100
Hornchurch 104	40,931 (42,600)		Upminster	58.2	4,020	34
			Hylands	80.2	3,601	66
Wandsworth and Streatham 105	26,094 (26,240)		Streatham Hill	63.4	7,009	100
Hendon North 106	22,853 (21,810)		Mill Hill	54.2	7,638	80
			Burnt Oak	84.1	4,502	20
SOUTH-EAST						
Thurrock 207	31,921 (34,570)		Grays	84.0	5,628	59
			Little Thurrock	79.0	2,630	41
Dartford 208	32,683 (34,850)		Priory	75.4	4,001	51
		R	Dartford Rural West	73.4	4,853	49
South-West Hertfordshire 209	34,290 (34,200)		Heath	52.9	2,925	30
			Leavesden	74.1	3,006	42
		R	Abbots Langley	57.5	4,607	28
Aylesbury 210	28,691 (31,710)		Aylesbury North	79.1	2,709	47
		R	Haddenham and Stone	64.7	1,769	28
		R	Long Crendon	75.5	1,421	25
Guildford 211	27,383 (28,560)		Merrow and Burpham	55.1	3,272	30
			Stoughton	64.2	1,973	33
		R	Cranleigh	62.0	1,925	37
Bournemouth West 212	33,804 (34,010)		Central	48.0	3,142	39
			Moordown North	65.9	3,551	61
New Forest 213	29,439 (33,930)		Milton Central	56.5	1,433	20
			Milton North	64.6	1,351	14
		R	Ringwood	56.1	3,149	31
		R	Burley	70.4	3,316	35
Lewes 214	28,284 (31,940)		Seaford UD	56.3	3,919	29
			St Andrews	80.1	937	27
		R	Barcombe	74.0	1,952	44

Table A1.9. - *contd*

Constituency	*Total number of households 1961 (1966 in brackets)*		*Ward or county electoral division selected*	*Percentage leaving school at 15 or earlier*	*Number of house-holds (1961)*	*Percentage distribution of households between strata*
EAST ANGLIA and EAST MIDLANDS						
Ipswich	37,792		Whitton	85.5	3,102	51
315	(38,720)		Westbourne	93.5	2,578	49
Leicester South-East	22,156		Knighton	52.2	6,756	36
316	(26,880)		Spinney Hill	84.8	5,316	64
Melton	34,705		Melton Mowbray	63.9	4,937	14
317	(39,020)	R	Quorndon	67.0	1,247	35
		R	Rothley	77.5	2,331	51
Grantham	28,760		Sleaford East	64.2	657	11
318	(31,580)		Somerby	74.1	3,012	19
		R	Swinderby	51.9	899	25
		R	N. Hykeham	71.0	1,735	45
SOUTH-WEST and WALES						
Neath	21,940		Neath North	83.7	2,877	44
419	(22,060)	R	Dylais Higher and Lower	90.0	2,213	23
		R	Coedfranc	83.9	2,850	33
Bristol South	25,824		Hengrove	87.8	5,719	100
420	(26,940)					
Bristol West	25,969		Redland	49.8	5,645	64
421	(25,420)		Cabot	68.1	4,423	36
Gloucester	21,165		Eastgate	73.7	2,217	50
422	(27,060)		Barton	85.2	2,460	50
Yeovil	28,477		Yeovil West	70.1	1,530	17
423	(29,800)		Preston	85.3	1,801	26
		R	Langport	73.9	1,796	18
		R	Ilchester	72.4	3,112	39
North Devon	19,230		Lynton	60.5	523	22
424	(21,080)		Trinity	81.1	1,162	23
		R	Swimbridge	67.1	1,301	30
		R	South Molton	74.7	607	25
WEST MIDLANDS						
Coventry East	36,010		Lower Stoke	83.2	6,460	repeated con-stituencies
525	(38,150)		(1 x 2)			
			Longford (1 x 2)	91.2	9,773	
Birmingham	35,928		Northfield (1)	79.2	14,520	
Northfield 526	(40,000)		Weobley (2)	84.0	11,675	

Table A1.9. - *contd*

Constituency	*Total number of households 1961 (1966 in brackets)*		*Ward or county electoral division selected*	*Percentage leaving school at 15 or earlier*	*Number of house-holds (1961)*	*Percentage distribution of households between strata*
WEST MIDLANDS - *contd*						
Brierley Hill	29,544		St John's	88.5	1,657	29
527	(40,120)		St Mary's	77.6	4,551	32
			Wombowne	79.7	3,316	39
Oldbury and	31,814		South	73.7	3,916	69
Halesowen	(32,530)		Central			
528			(Oldbury)	82.8	1,501	31
South	38,928		Malvern 4	69.0	1,037	17
Worcestershire	(29,980)		Malvern 5	58.4	1,213	14
541		R	Upton Sudbury	69.5	1,165	29
		R	Worndown	76.5	3,136	40
Oswestry	25,656		East	63.7	361	24
542	(23,720)		South	70.0	1,195	22
		R	Ellesmere			
			Rural	68.9	1,181	23
		R	Prees	61.7	1,928	31
NORTH-WEST						
Salford East	24,905		Kersal	82.0	4,872	50
629	(22,580)		Crescent	95.0	2,132	50
Manchester	32,610		Didsbury	51.5	5,676	17
Wythenshawe 630	(33,380)		Baguley	81.8	6,415	83
Bolton East	29,735		Great Lever	88.1	5,292	50
631	(29,530)		Attley Bridge	88.4	4,188	50
Southport	29,206		West	66.5	1,601	41
632	(28,910)		Birkdale North	81.7	1,798	59
Newton	31,518		Irlam	61.7	1,330	17
633	(36,350)		Wargrave	88.1	1,928	54
		R	Great Sankey	73.4	1,887	19
		R	Winwick	84.0	576	
Northfylde	26,084		Thornton			
634	(29,380)		Clevelys	72.9	1,525	36
			Thornton			
			Clevelys North	84.3	1,814	46
		R	Cabus	77.9	1,498	18
		R	Bilborrow	60.3	1,720	
NORTHERN YORKSHIRE and HUMBERSIDE						
Pontefract	26,554		Castleton	91.6	1,996	31
735	(26,110)		Half Acres	92.9	1,580	35
			South	92.1	1,109	34

Table A1.9. - *contd*

Constituency	*Total number of households 1961 (1966 in brackets)*		*Ward or county electoral division selected*	*Percentage leaving school at 15 or earlier*	*Number of house-holds (1961)*	*Percentage distribution of households between strata*
NORTHERN YORKSHIRE AND HUMBERSIDE - *contd*						
Bradford East	23,173		Lister Hills	77.3	4,254	50
736	(21,070)		East Bowling	90.6	3,755	50
Leeds North-West	35,730		Far Headingley	60.4	8,517	55
737	(37,510)		Hyde Park	77.4	5,754	45
Haltemprice	26,438		Central	62.2	5,588	21
738	(29,850)		Hessle	76.4	4,636	52
		R	Part Beverley RD	-	7,134	27
Newcastle-on-Tyne	23,161		Dene	70.6	4,740	21
East 739	(22,420)		Heaton	77.4	4,975	79
South Shields	36,974		West Park	79.5	2,698	50
740	(35,600)		Cleadon Park	83.9	2,241	50
SCOTLAND						
Glasgow	28,561		Parkhead	91.0	5,592	100
943	(21,110)					
Coatbridge and	23,421		Fourth } data not		3,718	50
Airdrie 944	(24,880)		Airdrie II } available		1,238	50
Galloway and	15,687		Crossmichael	83.7	297	21
Wigtown	(17,270)		Kirkcudbright	75.4	186	26
945		R	Old Luce North	61.8	332	12
		R	Port Patrick	52.4	308	14
		R	Kirkcudbright	56.0	807	14
		R	Whithom	82.0	315	13
Aberdeen South	28,599		Rosemount } data not		4,328	50
946	(30,050)		Rubislaw } available		4,182	50
Edinburgh West	30,604		Pilton	91.7	7,367	24
947	(31,420)		St Bernards	62.8	8,615	38
			Corstophine	62.7	7,324	38
Kinross and West	18,276		Dunblane	69.2	1,007	18
Perthshire	(15,240)		Aberfeldy	54.7	519	35
948		R	Dunblane and Secroft	80.2	238	12
		R	Little Dunkeld	36.3	416	11
		R	Blair Atholl	28.1	414	12
		R	Landward of Kinross	68.2	1,341	12

Table A1.9. - *contd*

Constituency	*Total number of households 1961 (1966 in brackets)*		*Ward or county electoral division selected*	*Percentage leaving school at 15 or earlier*	*Number of house-holds (1961)*	*Percentage distribution of households between strata*
NORTHERN IRELAND						
Belfast East 849	32,900		Duncairn	not stratified	10,088	50
Belfast North 850	26,303		Pottinger		13,147	50
Fermanagh and South 851	18,858		Enniskillen East		830	23
		R	Augnockry		901	77
		R	Fintona		967	

R = Rural

In making a selection with probability proportional to size, the measure of size should be in constant proportion to the number of final units, i.e. households. But, at the first stage, the measure of size was the electorate of the constituency, and the proportion of electorate to numbers of households varies very slightly from constituency to constituency. At the second stage, however, we did use the number of households as a measure of size in each ward or county electoral division. Any departure from the principle of a uniform overall sampling fraction was therefore small.

The Additional Samples in Four Areas

In addition to the national sample of approximately 2,000 households, concentrated studies were conducted in four areas. We aimed to choose areas within constituencies in which the proportion of low-income households would be high. These four areas, chosen from among the constituencies already included in the sample, were selected using criteria indicating that the incidence of the main types of low-income households would be well above the national average. In each area, between about 300 and 500 addresses were selected. The first interview was a screening interview to identify the following groups:

1. Families in which one parent is absent.
2. Families consisting of woman and adult dependants.
3. Families in which there are four or more dependent children.
4. Families containing an adult who has been unemployed for eight weeks (consecutively or in last twelve months).
5. Families containing an adult under 65 years of age who has been ill or injured for eight weeks (consecutively or off work for a total of eight weeks or more in last twelve months).
6. Families containing a disabled adult under 65.
7. Families containing a disabled or handicapped child (including children ill or injured for eight weeks or more).
8. Families containing a person aged 65 or over who has been bedfast or ill for thirteen weeks or more or who is otherwise severely incapacitated.

9. Families in which there are:
   (a) adult female earners (aged 21-59) earning less than £8 a week;
   (b) adult male earners (aged 21-64) earning less than £14 a week.
10. Families in which there are persons who are:
   (a) non-white;
   (b) born in Eire.

The first interview for those households who fell into one or more of these special groups was followed by a longer interview using exactly the same questionnaire as in the national sample. Approximately one in every three households in the sample fell into one or more of the special groups and was given the full interview. Thus the random national sample of households giving us information about the prevalence of poverty in its various forms was complemented by intensive studies in certain areas to find both the extent of any increase in the prevalence and how far such an increase might be linked with certain characteristics of the households.

Criteria Used for Selecting the Areas

The selection can be considered in two stages: first, the selection of the constituency, and secondly, the selection of the area within the constituency in which the households would be concentrated. The choice of the four areas was restricted to a choice from constituencies already included within the national sample because we had already collected a considerable amount of information about the characteristics of these constituencies. In addition, drawing the sample and interviewing in areas with which we had already established contact was administratively easier.

We wanted to select areas in which unemployment and low wages were particularly prevalent. This made constituencies from Northern Ireland and Scotland obvious choices. We therefore chose Belfast as one area. Glasgow Shettleston was the second ‘poorest’ of all the Scottish constituencies by our first stratification factor, and the ‘poorest’ actually selected in our sample.

The only constituency selected in the national sample in Wales was Neath, and by our first stratification factor was the ‘poorest ‘ selected in Wales and the South-West. While Neath is not the area of highest unemployment in Wales, its selection as one of the four special areas had several advantages. Due to recent pit closures in several valleys in and around the constituency of Neath, in particular the Cefn Coed colliery, the incidence of unemployment was high. The incidence of chronic sickness and disability was high: death-rates for men in Glamorgan were over 17 per cent above the national average, and in the urban districts of Glamorgan the mortality rate from bronchitis was 61 per cent above the national average (based on figures for 1960-62). In Glamorgan, 5.7 per cent of pupils received free school meals compared with 4 per cent of pupils for all counties in England and Wales in 1966. In addition, part of the constituency was rural, so that by choosing Neath as one of the four areas, we included for intensive study a rural area with problems of depopulation and unemployment.

The fourth area was chosen from our sample of English constituencies. Unemployment figures were not collected or published in a form which allowed calculations of unemployment rates for particular constituencies to be made. We might have chosen Newcastle-on-Tyne or South Shields, for example, on the grounds that they were included in an above-average unemployment region. However, these particular constituencies were not likely to be the

poorest in our sample of English constituencies. By our first stratification factor, they were one of the richer constituencies in that region, and by our second stratification factor, the highest proportion of the population aged 25 or over leaving school at 15 or before in any one ward was 82 per cent in Newcastle-on-Tyne East, although in one ward of South Shields the proportion was 92 per cent. In terms of our second stratification factor, Salford East contained the ward with the highest proportion (95 per cent) leaving school at the minimum age in the whole sample. The proportion in all the other wards in the constituency, with the exception of two, was over 90 per cent. Salford had other characteristics which strengthened the case for making it the fourth special area. In the borough of Salford in 1966, 9.6 per cent of school children received free meals compared with 6.1 per cent for all English boroughs and county boroughs. The mortality rate was 46 per cent above the average for all boroughs and county boroughs in England and Wales, and was the worst (figures based on the average 1960-62). The mortality rate (for the same three years) due to bronchitis was over twice the national average, and respiratory tuberculosis rates were above average. There was therefore strong evidence that Salford would contain a higher than average proportion of low wage earners even if the unemployment rate was not the highest. We therefore chose Salford East as the fourth area.

Selection within the Four Areas

Within the chosen constituencies, one or two smaller areas comprising altogether between 6,000 and 8,000 households, preferably not crossing polling districts boundaries, or at least areas that could be identified as district communities, were chosen. The selection was based on as much information as we could obtain from published data and from local officials: rating officers, medical officers of health, education officers and housing officers. For different wards

Table A1.10. *Characteristics of the wards of Salford East.*

Ward	*Population density*	*Population*	*Households*	*Percentage leaving school at 15 or younger*
Albert Park	43.9	12,831	4,154	94.7
Crescent -	19.9	6,341	2,132	95.0
Kersal	18.7	15,330	4,872	82.0
Mandley Park	57.3	11,750	3,885	92.2
Ordsall Park	60.9	10,224	3,443	95.9
Regent	74.0	9,541	3,084	95.5
St Matthias	41.0	6,518	2,145	93.1
Trinity	20.4	4,396	1,190	86.1

of Salford East, Table A1.10 shows the percentage who had left school at 15 or younger.

The Education Officer confirmed that St Matthias, Trinity, Crescent and Regent were among the poorest wards in this constituency, and provided the following figures on recipients of free school meals. The wards of St Matthias, Trinity, Crescent and Regent formed a unit of

Table A1.11. *Percentage of children receiving free meals in four wards in Salford East.*

Ward	*Percentage receiving free school meals (March 1968)*
St Matthias	30.2
Trinity	16.1
Crescent	15.8
Regent	22.2
Average for Salford (1966)	9.5

approximately 8,000 households within the constituency. On the basis of this, and the above evidence that the proportion of low income households was high, these wards were therefore selected. The choice of wards in Glasgow Shettleston was more difficult. Table A1.12 gives the percentage of adults leaving school early in three areas.

Table A1.12. *Characteristics of the wards of Glasgow Shettleston.*

Ward	*Population density*	*Population*	*Households*	*Percentage leaving school at 15 or younger*
Parkhead	21.5	17,123	5,592	91.0
Shettleston and Tollcross	37.9	44,253	13,032	88.3
Milend	67.3	29,680	9,937	94.3

The City Assessor's Office provided us with the information in Table A1.13 on rateable values and let property (based on figures for Whit Sunday 1967). In the light of this information, together with the results of the discussions our interviewer in Glasgow had with the Education Department, Health and Welfare Department and doctors in these areas, it was clear that no single ward was likely to include a substantially higher proportion of low-income households than the others. Moreover, though Shettleston and Toll-cross included some of the very worst areas, this ward also included some good areas.

Table A1.13. *Rateable value and proportion of privately let homes in the wards of Glasgow Shettleston.*

Ward	*Total number of households*	*Average rateable value*	*Percentage of privately rented houses*	*Average rateable value -privately rented*
Parkhead	13,385	£33.5	25	£17.2
Shettleston and Tollcross	5,880	£34.8	24	£21.4
Milend	3,828	£18.3	55	£13.1

We therefore decided not to confine the sample to one ward, but, on the basis of local information, defined an area of approximately 5,000 households on a map which included polling districts in all three wards.

Belfast

In Belfast, we departed from the procedure adopted in other constituencies and did not confine the selection of wards to those in the constituencies chosen in the national sample, i.e. Belfast North and Belfast East. We were anxious to include the poorer areas and, if possible, select two areas: one predominantly Roman Catholic and one predominantly Protestant.

The Rates Department informed us that Shankill Ward in North Belfast and Dock Ward in East Belfast contained more property of low rateable value than other wards in Belfast. However, we compared this with figures from the Education Department on the proportion of school-children receiving free meals in each ward in Belfast. Neither Dock nor Shankill Wards had the highest proportions (9.3 per cent and 9.8 per cent respectively). The average for the whole of Belfast was 12.3 per cent, and Smithfield Ward and St George's Ward in Belfast West had the highest proportion of school-children receiving free meals: 20.7 per cent and 19.2 per cent respectively. The former was predominantly Roman Catholic, the latter Protestant, and both wards were roughly the same size and together comprised about 6,000 households.

Neath

In this constituency we decided to divide the sample into two areas: one urban and one rural.

We obtained some information from the Borough Treasurer concerning rate rebates. The percentage of rate rebate in Briton Ferry, Neath North and Neath South were 7.9, 8.6 and 7.4

Table A1.14. *Characteristics of the wards in the constituency of Neath.*

Ward	*Population density*	*Population*	*Households*	*Percentage leaving school at 15 or younger*
Briton Ferry	4.8	8,636	2,745	81.3
Neath North	7.6	8,437	2,877	73.8
Neath South	9.7	13,862	3,962	83.7

respectively. The Divisional Education Officer in Neath provided us with further information (based on figures relating to October 1967), and identified one polling district in Briton Ferry Ward, comprising some 600 dwellings, in which there appeared to be a concentration of low-income families. In this polling district, the birth-rate was 45 per 1,000 compared with 24 per 1,000 for the Briton Ferry Ward and 15 per 1,000 for the whole division. Seventeen per cent of the junior- and infant-school children received free meals, compared with approximately 6 per cent for the whole division. The proportion of children obtaining passes in the 11-plus examinations was much lower than for the whole division: 15 per cent compared with 25 per cent; and absenteeism was higher than average. We therefore decided to sample this polling district, together with the other polling districts of Briton Ferry Ward, sampling approximately one in ten addresses.

In the rural areas of Neath constituency we were able to obtain less information.

The Divisional Education Office was unable to supply figures to indicate an area within Neath rural district that was likely to be particularly poor. In the whole area of Dylais valley, there was a general slow process of depopulation as people drifted away from the valley to

Table A1.15. *Characteristics of the parishes in the constituency of Neath.*

Parishes	*Population density*	*Households*	*Percentage leaving school at 15 or younger*
Baglan Higher Clyne Michaelston Higher	0.4	775	89.5
Neath Higher Neath Lower	0.7	1,657	84.0
Blaengurach	0.4	476	85.0
Blaenhondden	1.3	1,363	68.1
Coedfranc	2.4	2,850	83.9
Dylais Higher Dylais Lower	0.8	2,213	90.1
Resowen	0.8	897	83.4
Rhigos	0.3	555	82.7
Tonse	0.7	685	88.6
Dyffryn Clydock	1.7	885	85.8

employment in the towns. In the Seven Sisters/Crynant area, for example, the primary schools were losing more 11-year-olds than they were gaining each year in 5-year-olds. It was in this area that a study of the problems of pit closures was being undertaken by social scientists at University College, Swansea.

The Housing Department of the Neath Rural District Council was very helpful, and were able to locate several streets in their housing estate at Seven Sisters which had a noticeably lower living standard than the rest of the area.

In many respects, the areas Dylais Higher and Dylais Lower were the most suitable choice for our purpose. However, it was felt locally that the recent closure of the colliery in Dylais Higher would make interviewing in that area difficult because feelings were running very high at the time. Moreover, it was feared that a survey of the area might raise false hopes that action would be taken. We therefore confined our area to one lower down the valley comprising Dylais Lower, Resolven and Crynant.