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The Problems
of a National Survey
of Poverty

Introduction The following memorandum is in two parts: a statement of the major problems of sampling, organisation and design as they appear to us at the present time; and an account of our progress towards a solution of these problems.

A national survey of poverty

We wish to investigate two interlinked areas: to find what proportion of the people and of the households of the United Kingdom have an income (defined in very broad terms) which falls seriously below the average; and to investigate the characteristics of those in poverty. We propose to do this by testing the hypothesis that certain groups (including the sick, disabled, unemployed, fatherless families, large families and immigrants) are more liable to poverty than the rest of the population. In order to obtain sufficient numbers of these groups for study, we propose to screen a large random sample of the population of England, Wales, Scotland and Northern Ireland. This poses two special problems:

- (a) If some of the special groups which we propose to screen have a national incidence of one or two per cent (or less with certain types of disability) what should be the size of the major sample in order to obtain numbers in the minority groups sufficient to make reliable estimates about the national incidence of their characteristics? In other words what will be the sampling error for information about a group that constitutes about one per cent of the population?
- (b) There are grounds for believing that many of those whom we most wish to interview are the kind of people who are least likely to be picked up by a survey (eg: the cognitively handicapped and those in whom personal circumstances militate against responding to a survey enquiry). It thus appears that extra care must be taken with interviewer and questionnaire techniques.

A further problem is that of finding an adequate sampling frame. The Register of Electors might not contain a substantial proportion of those in whom we are interested - the itinerant and those who do not register as voters through ignorance or lack of interest. We are also interested in caravan dwellers who do not appear on any sampling frame but whose economic circumstances we particularly wish to investigate. We are constrained by the difficulties of organisation and cost. Our calls for finance upon the Rowntree Trust are finite and we have to balance cost with accuracy of sampling and the administrative difficulty of particular designs. We are anxious to find definitive answers to the following questions:

What is the smallest size of a national sample compatible with relative accuracy of estimates about the characteristics of small sub-populations?

How far can the sample be drawn from areas selected for the incidence of special characteristics (eg: social class, proportion of immigrants, proportion of Labour voters)?

How far can the sampled households be taken from sub-areas so that the travelling time of interviewers and the national organisation involved can be reduced to a minimum?

The following memorandum is in two parts: a statement of the
major problems of sampling, organization and design as they appear
to us at the present time; and an account of our previous work
in solution of these problems.

A national survey of poverty

We wish to investigate the interrelated aspects of the problem
of the definition of the United States as income (defined in very broad
terms) which will be used in the survey; and to investigate the character-
istics of those in poverty. We propose to do this by testing the hypothesis that
certain groups (including the sick, disabled, unemployed, fatherless families, large
families, etc.) are more likely to be in poverty than the rest of the population.
In order to obtain sufficient numbers of these groups for study, we propose to select
a large random sample of the population of the United States, and within this
sample to select two special groups.

(1) If some of the special groups which we propose to select have a national incidence
of one or two percent (or less) with certain types of characteristics, what should be
the size of the major sample in order to obtain numbers in the minority groups
sufficient to make reliable estimates about the national incidence of their
characteristics? In other words what will be the sampling error for estimation
about a group that constitutes about one percent of the population?

(2) There are reasons for believing that many of those who are in poverty
are the kind of people who are least likely to be picked up by a survey (e.g. the
negatively motivated and those in whom personal circumstances militate against
response to a survey enquiry). It thus appears that extra care must be taken
with interviewers and questionnaire techniques.

A further problem is that of finding an adequate sampling frame.
We might want to contain a substantial proportion of those in whom we are interested
- the illiterate and those who do not register as voters through ignorance or lack of
interest. We are also interested in persons who do not appear on any
sampling frame but whose economic circumstances we wish to study.
We are concerned by the difficulties of organization and cost. Our calls for
funds upon the Research Trust are finite and we have to balance cost with accuracy
of sampling and the representative difficulty of questionnaire design. We are anxious
to find definitive answers to the following questions:

What is the smallest size of a national sample compatible with relative
accuracy of estimates about the characteristics of small sub-populations?
How far can the sample be drawn from areas selected for the incidence of
certain characteristics (e.g. racial class, proportion of illiterates, proportion
of laborers)?
How far can the sample be drawn from sub-areas so that the results
are representative and the national organization involved can be reduced
to a minimum?

Progress towards solution of these problems

We have explored the possible use of commercial survey organisations for interviewing. However, the results of these enquiries have not been encouraging since we require our interviewers to be particularly patient and skilful and we wish to have a degree of control over their training and field activity. There is a distinct possibility that about half our interviewing team can be made up of officers of the Ministry of Social Security. These officers have special skill and experience in obtaining details of income and of conducting relationships with the general public in a particular way. We are not sure at the present time of the extent to which their approach might "alienate" respondents in whom we are particularly interested. The other half of the interviewers - in our present design - would be specially recruited and trained by us and would ask the specially broad questions about income and the special questions for the minority groups who have been detected in the first screening interview. We are at present writing this screening questionnaire and hope to carry out a pilot survey to test the full questionnaire in the summer, and to begin the full interviewing in the autumn. The limit on the number of interviewers we can employ and train will probably mean that the period of interviewing will take about a year.

With regard to the total number of interviews our present estimate is that our finances will cover about 10,000 interviews, or perhaps less (and not 20,000 or more as we had originally hoped). The problems of stratification and confining the interviews to fairly limited areas thus become of particular importance to us.

We are particularly concerned to investigate fully the technical and theoretical justification for the use of particular stratification factors. One problem is that of the economically poor whose original social class or perception of political process (eg: the "anomie" effect described by Tunstall in Old and Alone) tends to make them abstain, or vote Conservative, and thus makes stratification factors such as Labour voters and low social class composition inappropriate for estimating the likelihood of the incidence of some groups in the population.

In addition we have some misgivings about the technical processes of re-weighting population estimates after the oversampling of particular areas where some groups (eg: large families) might be particularly liable to dwell. We would very much like to have the theoretical and technical rationale of this process explained to us since our past experience of reweighting procedures has not been entirely happy.

We are seeking then a strategy which will allow a maximum number of interviews compatible with the finance we have available to be balanced against the apparent difficulties of oversampling and reweighting.

A further technical problem we are considering is that of our split sample: one part handled by Social Security officers, the other by our own interviewers. We wish to keep these two interviewing processes separate so that the quality of the two types of interviewers can be compared. We are not sure at the present time whether to draw

these two samples separately or whether to take them from a single main sample. With regard to the problem of the sampling frame, we have in mind the following alternatives:

- 1 Using the electoral register and using Yates' "half open interval" technique to pick up households not on this frame;
 - 2 The Rating Register, interviewing all households within the rated property;
 - 3 Using the list from which the rating or electoral records are built up.
- These lists are held by local authorities but involve the problem of access.

We have not yet found any solution to the problem of interviewing itinerant groups such as gypsies.

Concerning the analysis of data we assume that we can employ the technique of writing questionnaires for an automatic reading machine which would directly transfer the information on the questionnaire to punched card or tape. We assume that MVC might be suitable for analysing our data (eg: giving cross percentage incidences, calculation of significant differences of incidence between various groups etc) but we have yet to tackle seriously the problem of analysis. We have had a fair experience of questionnaire design but we would be interested in seeking skilful advice on this - for example: from the Survey Research Centre.

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