



Durham E-Theses

Male occupational and social mobility in Scotland since the first world war

Payne, Geoff

How to cite:

Payne, Geoff (1983) *Male occupational and social mobility in Scotland since the first world war*, Durham theses, Durham University. Available at Durham E-Theses Online: <http://etheses.dur.ac.uk/7824/>

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a [link](#) is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.

MALE OCCUPATIONAL AND SOCIAL MOBILITY
IN SCOTLAND SINCE THE FIRST WORLD WAR
(Volume Two of Two Volumes)

Geoff Payne, B.A. (Econ), M.A.

The copyright of this thesis rests with the author.
No quotation from it should be published without
his prior written consent and information derived
from it should be acknowledged.

A thesis submitted in fulfilment of the requirements for the
degree of Doctor of Philosophy, University of Durham.

Department of Sociology and Social Policy, 1983.



(i) 30. JUL. 1984

TABLE OF CONTENTS

<u>Volume II</u>	<u>Page No.</u>
Chapter 8 : Trends in Occupational Mobility.. ..	1
Chapter 9 : Education and Mobility	55
Chapter 10 : Careers, Cohorts and Classes	96
Chapter 11 : Mobility in Scotland	146
Appendix I : Occupational Scales and Social Class ..	166
Appendix II: Methodology.. .. .	227
Bibliography	273

Figure 8.1	: Diagrammatic Representation of Factors in Changing Mobility Rates	2
Figure 8.2	: 5-Year Moving Averages for Non-Manual Employment and Mobility on First Entry to Labour Market	7
Figure 8.3	: 5-Year Moving Averages for Non-Manual Employment and Mobility 10 years after entry to Labour Market	9
Figure 8.4	: % of Total Upward Mobility Distributed Among 4 Classes.. .. .	15
Figure 8.5	: % of Total Upward Mobility 10 years after Starting Work	16
Figure 8.6	: % Sample in Each of the Four Classes	18
Figure 8.7	: % of Each Non-manual Class Recruited from Manual Origins.. .. .	21
Figure 8.8	: Mobility Factors	24
Figure 8.9	: Proportions of Upward Mobility in 3 Industrial Sectors	26
Table A	: Inter-Sector Shifts in the First 10 years of Employment	26
Figure 8.10	: % of Non-Manual Employment in 4 Classes for Staples and All Industries	32
Figure 8.11	: Upward Mobility in Each of 4 Non-Manual Classes: Staple Industry and All Industries	34
Figure 8.12	: % of Non-manual Employment as 4 Classes for Light Industry and All Industries ..	37
Figure 8.13	: Upward Mobility in each of 4 Non-manual classes: Light Industry and All Industries	38
Figure 8.14	: % of Non-manual Employment in 4 classes for Basic Services and All Industries ..	40
Figure 8.15	: Upward Mobility in Each of 4 Non-Manual Classes: Basic Services and All Industries	42
Figure 8.16	: % of Non-Manual Employment in 4 Classes for New Services and All Industries.. ..	43
Figure 8.17	: Upward Mobility in Each of 4 Non-Manual Classes; New Services and All Industries	45
Table 8.1	: Sectoral Share of Upward Mobility, 1930-39 and 1960-69.. .. .	51
Table 8.2	: Intra-Sector Changes, 1930-39 and 1960-69..	52

<u>Chapter 9</u>	<u>Page No.</u>
Table 9.1 : Type of Secondary School Attended	64
Table 9.2 : Type of Secondary Schooling and Social Mobility of Men Born into UMC Families.. .. .	66
Table 9.3 : Destination of those with UMC Origins by Educational Success	67
Table 9.4 : Type of Secondary Schooling: Inflows ..	68
Table 9.5 : Inflow to UMC by Level of Educational Qualification	69
Figure 9.1 : A Diagrammatic Representation of Education and Occupations	72
Table 9.6 : Types of Schooling of Elite Groups in Various Studies	76
Table 9.7 : Proportions of Upmobiles	82
Table 9.8 : Proportions of Mobile Groups with 'high qualifications'	84
Table 9.9 : % Correct Predictions of Association Between Qualifications and Occupa- tional Status	86
Table 9.10 : Inter-Industry Variations in Prediction Rate (%) of the Tightening Link Thesis	88
Table 9.11 : Inter-Industry Variation in Prediction Rate of the Tightening Link	89
 <u>Chapter 10</u>	
Table 10.1 : Goldthorpe's Data on Counterbalance: Outflow Percentages	98
Figure 10.1 : Direct and Indirect Entry to Non- Manual Work	100
Table 10.2 : Direct and Indirect Entry to Manual and Non-Manual Classes	102
Table 10.3 : Direct and Indirect Entry to Non- Manual Occupations in Four Cohorts ..	104
Table 10.4 : % Gross Mobility/Immobility, Non- Manual Occupational Destinations.. ..	106
Table 10.5 : Entry to Non-Manual Employment by Origin Class, 5 Industrial Sectors ..	112
Table 10.6 : Access to Non-Manual Occupations by Cohorts, Sector and Origin Class.. ..	115
Table 10.7 : Gross Upward Cohort Mobility by Sector and Route	119
Figure 10.2 : Moving Averages for 5-Year Cohorts: Proportions Entering Skilled and Less-Skilled Manual First Jobs	122
Figure 10.3 : Moving Averages for 5-Year Cohorts: Career Mobility from Skilled Manual First Job.. .. .	125

Chapter 10 (Continued)

Page No.

Figure 10.4 :	Moving Averages for 5-Year Cohorts: Career Mobility from Semi- or Unskilled Manual First Job	126
Figure 10.5 :	Moving Averages for 5-Year Cohorts: Career Mobility from Lower Range Non-Manual First Jobs	128
Figure 10.6 :	Moving Averages for 5-Year Cohorts: Career Mobility from Skilled Manual First Jobs	130
Table 10.8 :	Relative Unemployment Rates	136
Table 10.9 :	Cumulative Percentages for Gross Weekly Earnings, September 1975.. ..	138
Table 10.10:	Mobility Between First and Present Job for Adult Males Born 1909-1948 ..	139
Table 10.11:	Number of Previous Jobs by Current Industrial Sector	141

Appendix I

Figure A.1 :	Scale Values by Employment Status.. ..	192
Figure A.2 :	Employment Status	194
Table A.1 :	Correlations between Collapsed Scales and 124-Scale	207
Table A.2 :	Range and Size of Scale Categories ..	209
Table A.3 :	Two Class Hierarchies and Their Scale Compositions	211
Figure A.3 :	Two Socio-Economic Class Structures ..	212
List A.1 :	Amalgamation Across the 124-scales Employment Status Structure.. .. .	221
List A.2 :	An Alternative Collapsed Scale	222

Appendix II

Table 1 :	Completion Rates	240
List A.3 :	The Questionnaire.. .. .	246

CHAPTER EIGHT:

Trends in Occupational Mobility

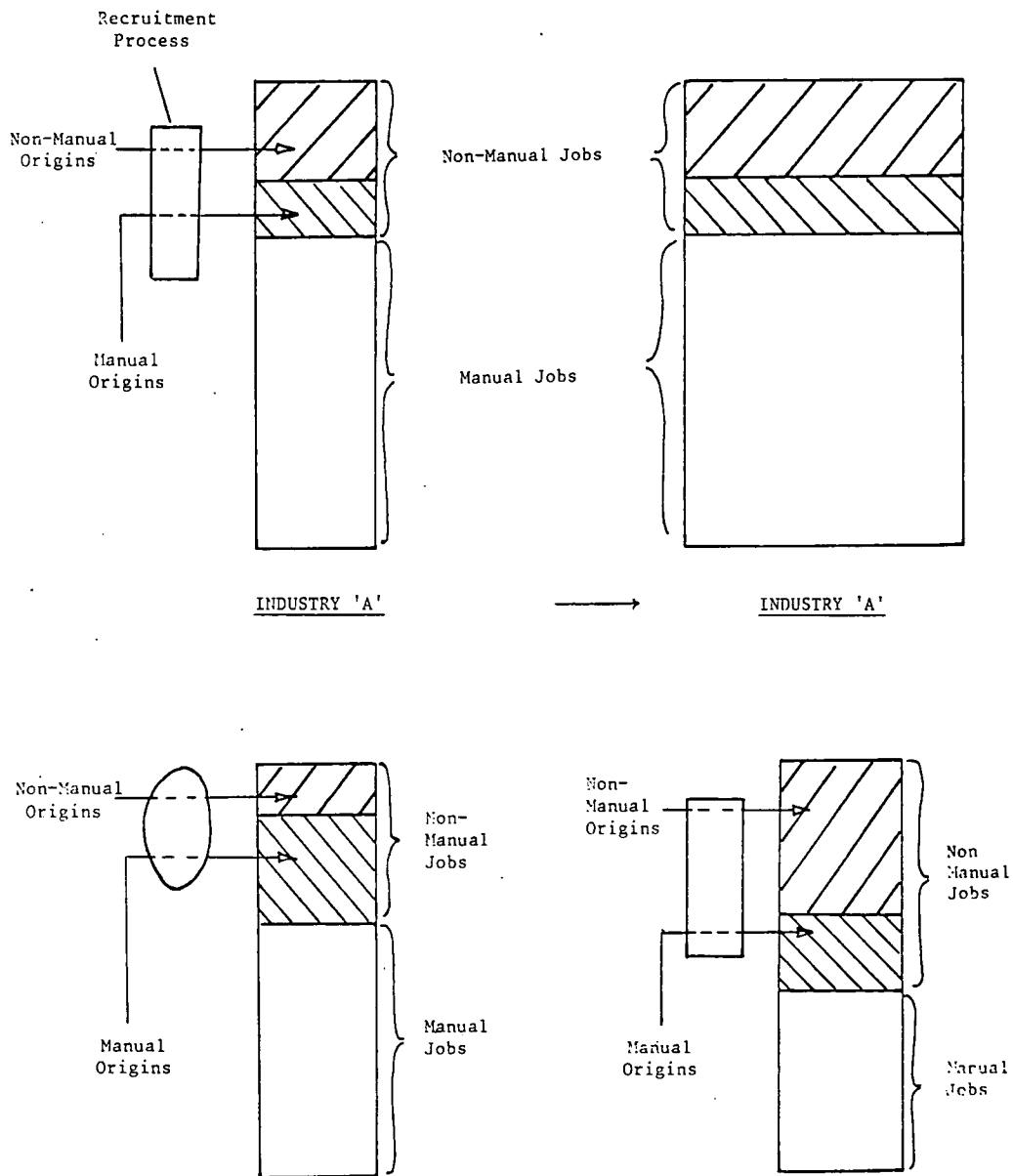
Mobility rates change for a number of reasons. For example, following Floud and Halsey, it is possible to seek an explanation in terms of modifying institutional arrangements such as reforming the school system, to equip more talented sons of the working class with the skills necessary for upward mobility. Or, following Johnson or the Parrys, one can look at associational or credentialist strategies of closure among professional groups as factors which increasingly restrict upward movement. Chapters 2 and 3 suggested other, more general mechanisms. In adopting an occupational approach, the present study takes changes in occupational composition as one immediate cause of mobility, without thereby rejecting these other, complementary, explanations.

The several sources of changes in occupational mobility can be identified by considering what produces the flow between origins and destinations. Mobility will respond to (a) a change in the 'rules of recruitment', (b) a change in the occupational process which expands/contracts the proportion of non-manual jobs, and (c) an expansion/contraction of the industry that is under discussion. This can be presented diagrammatically, as in Fig. 8.1.



Fig. 8.1: Diagrammatic Representation of Factors in Changing Mobility Rates.

Fig. 8.1



The first part of Fig. 8.1 (top left) shows an industry with two levels of job, manual and non-manual. The latter is sub-divided into two by virtue of its recruitment: one part is filled by workers from non-manual origins and the other is filled from manual origins (although of course this can be generalised to any number and structure of classes). The number of those coming from manual backgrounds can be expressed as a percentage of all those in the industry, for an industry-specific mobility rate, or more commonly aggregated with their equivalents in all other industries to give a total mobility rate. On the left of the industry 'block' is a representation of the 'recruitment process'. This is a catchall title to cover everything from the hiring and firing policies of the industry's personnel departments, through the aspirations and values of the total labour force, to the exigencies of the educational system.

In the second part of Fig. 8.1 (top right) the total size of the same hypothetical industry has increased, as represented by a broadening of its width. The industry-specific mobility rate remains the same, but the industry's contribution to total mobility in the society is greater, because more people are going through the expanded industry's 'mobility route'.

In the third part of Fig. 8.1 (lower left) we have returned the industry to its original scale, but modified the recruitment process. Now more of the available non-manual jobs go to the upwardly mobile. Both the industry-specific and the total mobility rates increase. The change in the recruitment process could be something completely external to the industry and thus 'forced' on the employer, or it could be a conscious change in personnel policy which had the (possibly unintended) consequences of opening up access to the children of manual workers.

Finally (lower right) we have an industry of the same size, with the original recruitment process, but with an expanded non-manual sector.

If these jobs are filled in the same proportions of recruits from manual and non-manual origins as before, there are nonetheless more opportunities for upward mobility in the expanded sector, so that again both the industry-specific and total mobility rates rise. Although each of these processes is analytically separate, in practice they are all operating, to various extents, at the same time. Nor have we exhausted all logical possibilities in identifying these three sources of change. For example, a drastic change in the distributions of origins (by means of a demographic shift or a change in occupational structure) would alter the supply of labour with particular backgrounds and who could be said to be 'at risk' of being upwardly mobile. (1)

Some methodological considerations

In practice, implementing this model is far from easy. To start with, the whole enterprise of connecting sample data to external time-series or historical accounts is rendered impossible, certainly at a high level of precision, by problems of comparability. It is therefore necessary to restrict ourselves to cautious, indirect, and general points of reference in alternative sources like those used in Chapters 4 and 5. Second, any discussion of 'demand' for labour which depends on evidence from a later sample must be incomplete, because jobs will have gone to other men not included in the analysis (who have in the interim died, emigrated, or who had worked already and so do not count as men 'first entering the labour force' (see below)). For this reason, and the practical limits of maintaining large cell values, it is necessary to simplify the analysis and to use broad groupings, such as 'non-manual workers', or 'manufacturing industry', etc.

(1) We can lay this particular ghost at the outset. Father's occupations when the respondents were 14 years old tend to become relatively more non-manual from 1930 on, but there are no sharp shifts in the distributions which coincide with the key periods that interest us.

This use of less specific categories also helps to avoid the objection of Crompton (1980) that certain jobs (e.g. clerks) had very different tasks and status in the past, so that any trend analysis is misconceived, because a given job cannot be regarded as having a constant value in the occupational hierarchy over forty years. For the time-being, Goldthorpe's (1980a) reply will suffice: cases of dramatic deskilling are few, and only a relatively small proportion of the labour force is involved.

A more substantial problem resides in the career data that can be used in analysing trends. The different lengths of respondents' careers means that older men have completed their careers while younger men still have some way to go. Any account of historical changes or trends which might promote greater mobility can be hidden by this career development factor, as argued in the critique of Glass's findings. Again, the Scottish study in following the Nuffield example has only a limited set of information on each respondent: lacking full career histories, we can compare only a small number of 'job points'; in practice first job and job ten years after starting work. Nor is the 'first job' necessarily what a common sense view would expect. Jobs taken between leaving school and starting apprenticeships ('butcher's delivery boy' etc) are discounted as temporary, while apprentices are classified as skilled manual workers from the start, rather than when they became skilled men in their own right, at the age of 21. This is because the Hope-Goldthorpe scale follows the OPCS conventions of classifying trainees with the occupations for which they are being trained (2) By using the first job and the job 10 years later, we control for differential career length, but necessarily truncate

(2) While it can be argued that this eliminates a kind of artefactual mobility, it must be observed that, in terms of an individual's work experience, these early years before becoming a fully-fledged member of an occupational group may well be significant in the way he sees his own status vis-a-vis other occupations. It follows that, by defining this kind of mobility out of the estimates in order to avoid an over-estimate of mobility rates, we have in effect underestimated mobility.

the careers of older respondents. The mobility that is explained is therefore only part of the mobility discussed in the previous chapter, which together with its often cruder categories, means that direct comparison cannot be made.⁽³⁾

To balance against these limitations, the methods of analysis used here offer a considerable improvement on more traditional accounts. First, conventional trend-analysis of mobility typically uses fixed cohorts, starting with the year of birth of the oldest respondent and reckoning ten-year blocks forward to the present, from that date. Thus Glass's cohorts run 1890-99, 1900-09, 1910-19, and 1920-29, while Goldthorpe's are 1908-17, 1918-27, 1928-37, and 1938-47. One difficulty with this is that these dates are determined by the year of the survey, rather than by an interest in a period of historical event. Therefore the cohorts may straddle countervailing trends and disguise chronological patterns (the cohorts have to be ten years long to retain large numbers for analysis). One way around this is to use 'rolling cohorts', i.e. moving averages based on successive, partially overlapping, groups of years. Instead of a table showing four cohorts, the data are presented as lines on a graph, as in Fig. 8.2. below.

Second, rather than using dates of birth to define cohort membership, year of entry to the labour market has been used. This enables us to talk more directly about the state of the occupational context at any one time, because the data then refer to all men starting work, whether ages 14 or 24. Although men born in the same year share certain experiences (e.g. school education) they do not all start work at the same time and under the same economic conditions.

When looking at the graphs it is important to remember that the five-year cohort is plotted at its mid-point: thus 1930-34 is plotted as 1932. The change between two adjacent points reflects the net effect of dropping out the oldest year and introducing a new one (1930-34 becomes

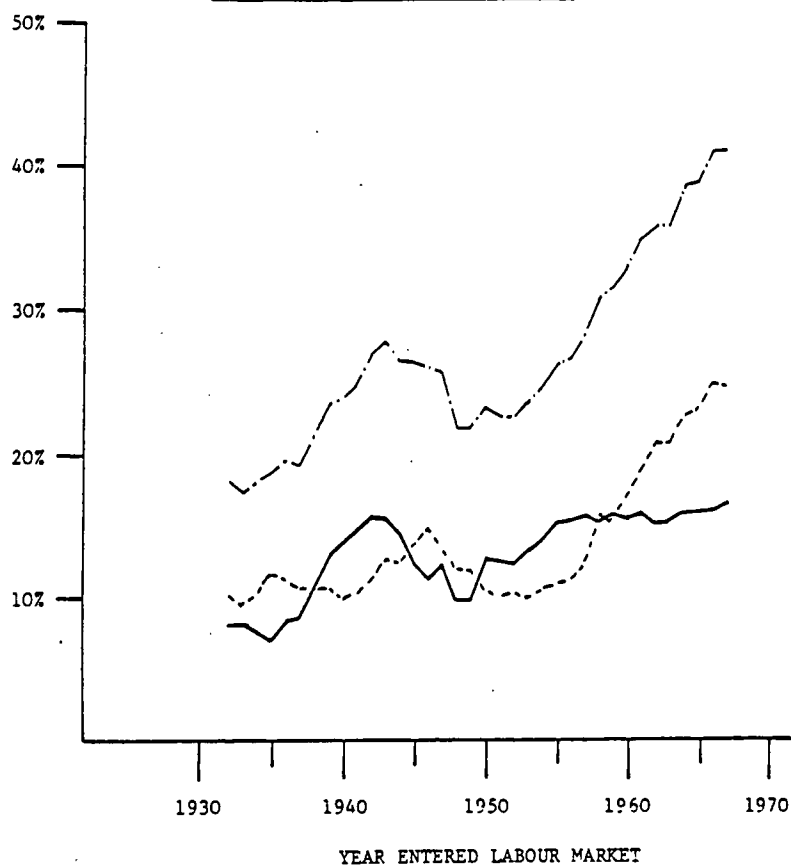
(3) The question of mobility between first and latest job is tackled in Chapter 10. The cohort numbers dealt with in this chapter range from 10% to 15% of the sample in any one time: overall between 450 and 500 cases, with any one cohort containing an eighth of the total.

1931-35) so it is important to look on either side of the points to see the period in question.

Occupations and Mobility, 1930-1970

Although our explanatory figure 8.1 was presented as a series of statements about an industry, the basic approach can be applied at an aggregate level, and indeed, the first step is to grasp the overall picture, before considering its components. Fig. 8.2. shows the pattern of changes in occupational distribution and in mobility for the first jobs of men entering the labour market from 1930 through to the late 1960's. Allowing

Fig.8.2. 5 Year Moving Averages for Non-manual Employment & Mobility on First Entry to Labour Market



- % Non-manual first employment
- % Non-manual first employment and recruited from manual family (i.e. Upward Mobility)
- . - . - % Non-manual first employment and recruited from non-manual family

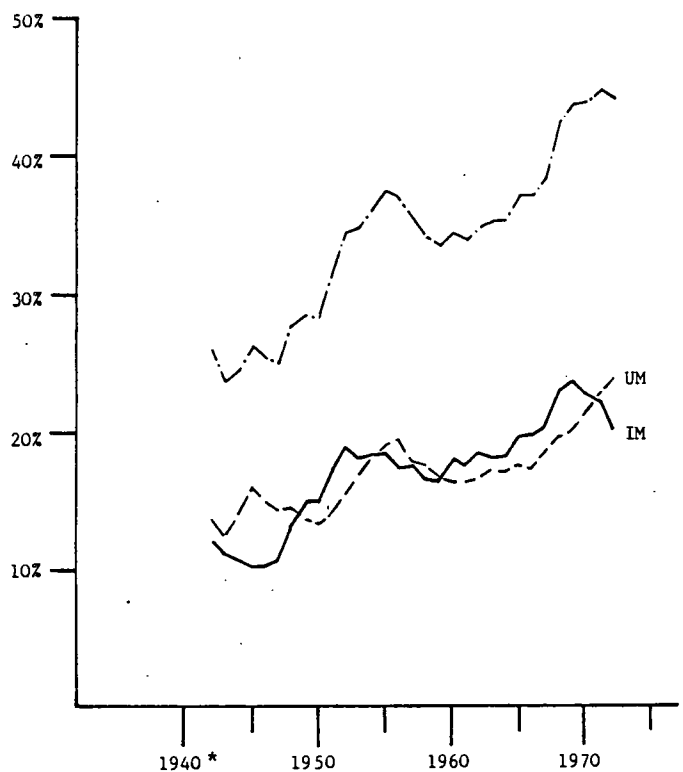
for an odd kink here and there, the upper line shows a decade of expansion of non-manual occupations, from an origin around 18%. This was followed by a decade of contraction, but the fall was not to the former levels. Finally men starting work from about 1950 on did so during a considerable expansion of non-manual work, rising to a point in excess of 40%.

If we examine the lower line, showing the percentage of upward mobility from manual backgrounds to non-manual employment, the first part of the pattern echoes the occupational distribution line, with a decade of increase followed by a decade of decrease. However, although mobility begins to increase in the fifties, it levels off at around 15% by the mid- or late fifties. This is double its earlier levels, but the apparent association of mobility and opportunity disappears.

Instead, the expansion of non-manual occupations is filled by men from non-manual backgrounds. This is shown by the middle, dotted, line which hovers between 10 and 15% until the late fifties but then takes off at a similar rate to the expansion of non-manual employment line. In short, as far as mobility across the manual/non-manual line at the first job is concerned, the upward mobility rate has ceased to improve. Indeed in the last decade of the period covered by the SMS, it has worsened vis a vis the rate at which the sons of the non-manual class gain access to non-manual work themselves.

Both the proportions non-manual and upwardly mobile rise between 1930-34 and 1941-45, the rise being more marked from 1936-40 on as the war years enter and dominate the moving average. Two separate things seem to be happening. During the 1930's, there is a small expansion of non-manual opportunity. Second, there is a 'war effect', which we come to in a moment. But first we need to look at the pattern 10 years after starting work, as shown in Fig 8.3

Fig 8.3: 5-Year Moving Averages for Non-Manual Employment and Mobility, 10 years after entry to Labour Market.



* i.e. started work
in 1930

- · --- % Non-Manual 10 year jobs
- % Non-Manual 10 year jobs and recruited from manual family (i.e. Upward Mobility)
- % Non-Manual 10 year jobs and recruited from non-manual family

The general characteristic of these graphs resemble those in figure 8.2, but with two main differences. First, the last part of the data in Fig 8.2 cannot be plotted in Fig. 8.3 because respondents entering the labour market between 1964 and 1974 had not at the time of interview yet had a job '10 years after starting work'. Therefore the sharp change in recruitment, from around the early sixties, does not show up in Fig 8.3, although there is a hint of it in the last few points plotted. Secondly,

the percentage values in the latter figure are, as expected, higher than those in Fig. 8.2 as a result of the career effect. What is striking is that the later patterns do so closely follow those of the first employment, showing how the initial structure is carried forward into the career. (4)

There is no evidence that the advantage derived from family background weakens after 10 years, to be replaced by the respondent's own qualities of achievement. For that to be true, the upward mobility line in Fig 8.3 should be markedly higher than the immobility line than it was in Fig. 8.2. The same relationship between the two figures also suggests that the later 'achievers' do not outperform their equivalents whose careers came historically earlier, (see also chapter 10 below).

Because the two job points reveal such similar patterns, details will be reported below only for one of them. The first employment point has been chosen because the time-series runs from 1930 to 1970, rather than 1930 to 1964. Parallel analyses were consistently carried out using the 10 year job point, however, and evidence from these is used wherever there were deviations from the first employment pattern, or the analyses demonstrated additional features of interest.

Both time-series indicate a small expansion of non-manual employment during the 1930s. To suggest that there was a growth in the proportions of non-manual work in this period seems on the face of things to be incompatible with the facts of the Depression. As Chapter Four showed, the Scottish economy was severely depressed right up to the Second World War,

(4) This finding is all the more striking in the light of the convention adopted to deal with conscription to the armed forces during the war. All men except career soldiers, sailors or airmen, were not recorded as 'armed forces' but as if in their last civilian occupation, so slightly truncating their careers. This does not greatly matter for the first job, since almost all young men started a civilian job, but obviously at the '10 year' job point this was a factor for men who had entered work 1930 to 1936. The similarity of the two figures suggests that there has in practice been very little artefactual distortion.

with very high rates of unemployment. However, as was also observed in that chapter, the 1930's were years of increasing productivity, of technological innovation even in declining old staple industries, and of concentration of capital into larger organisations of production. Following this argument, the transition to increased proportions of non-manual employment can perhaps be partially explained in terms of the occupational requirement of the new technologies and new scales of organisation which despite high levels of unemployment were maintained through the decade. It would seem that young workers benefitted from these changes, while their elders tended to remain unemployed, trapped in their now redundant careers. Second, it follows that changes in non-manual employment and upward mobility do not seem to be incompatible with high unemployment, with rising productivity, or with marked changes in the nature of capital.

One 'test' of this interpretation, which will not be reported in any detail here, is to take manufacturing industries which were declining or expanding during the inter-war years, basically as indicated by Leser and Silvey (1950).⁽⁵⁾ These do not include all industries (e.g. service industries are omitted) but for the remainder it offers a chance to look for any pattern of association between economic performance (growth or contraction of labour force) and either percentage of non-manual jobs or upward mobility. First, we observe that as far as young men are concerned, there is no evidence that consistently fewer were recruited into the declining industries, even if the total labour force in those industries was falling. Second, while the proportion of non-manual jobs was lower for this group, it

(5) A full list of which industries are included can be found in Leser and Silvey (1950, 171-3). Broadly speaking, declining industries include the old staples, plus some foods and printing while expanding industries include electrical engineering, chemicals, building materials, vehicles and 'consumer goods'.

grew from around 5% to 10% during the 1930's, of which around one-third involved upward mobility. In the expanding industries, non-manual jobs made up about 20% of all jobs for those first starting work, with a slight tendency for this to be higher in the later years. Up to about half of these jobs went to the upwardly mobile. We therefore conclude that while expansion and relative economic success are associated with growth in non-manual occupations and mobility, the same process is going on, to a lesser extent, even in contracting and economically unsuccessful industries. This conclusion applies, however, only to those entering work for the first time (and the first ten years of their careers); the experience of older men may be much less optimistic.

But if the transition to higher levels of non-manual employment is sufficiently robust to stand up to the effects of the Depression how is one to explain the collapse of this trend (and mobility rates) in the late forties and 1950's? We would like to suggest that this is the result of a quite separate process, namely a 'war effect'. During the War, the war economy differed from that of peacetime in several important ways. First, a very large part of the male labour force was not available for employment, because they were in the Armed Forces. Calder records that one sixth of men under 40, and more than half of men in their twenties, had been called up by July 1940. Second, 'non-essential' enterprises were run-down or suspended, while industries directly relevant to the war effort were modified and expanded. Third, the need for co-ordination, rapid change, and controls generated new state bureaucracies and company record-keeping departments.

The processes through which school-leavers were recruited to fill vacant jobs were therefore completely different during this period. The school leaver taking a civilian job between 1939 and 1945 found himself able to consider jobs which under normal circumstances would not have been available to him. Men of fighting age were being replaced by women, by old

men past retirement age, and by these youngsters. In a situation of economic upheaval and labour shortage, established practices were in abeyance and the inexperienced could find themselves taken on in offices or stores, or (given the prevalent attitudes of the time) used to direct the labours of women.⁽⁶⁾

Thus the rise shown in Fig.8.2 in the numbers of non-manual occupations and in the upward mobility rate do not reflect so much an expansion of the non-manual sector, but in the increased employment of young men in those non-manual occupations that were available. What we are witnessing is a temporary change in recruitment patterns. To put it another way, the graph shows at this point an improvement in the chances of the young worker getting a non-manual job as well as any structural shift caused by the newly-created machinery of state regulation.

Conversely, after the war, the reverse was true. Not only were there the demobbed armed forces back in contention, but those who had done so well at home during the war were also well-ensconced in their careers (as Fig. 8.3. shows). The opportunities for young men entering the labour market for the first time in the post-war period were blocked by older men who had stronger claims than they did. If this supposition is correct then the peak and trough that lies between 1938 and 1949 (i.e. cohorts 1936-40 to 1947-51) is a direct product of the Second World War, and in that sense a deviation from mainstream trends. Its effect in terms of career entry, and therefore subsequent life chances, persists until the end of the 1940s.

From around the early 1950s, non-manual growth is fairly consistent, as one might expect in two peaceful decades marked by more or

(6) Some general discussion of war and labour can be found in Pelling (1963, 211-8) and Cole and Postgate (1961, 663-72).

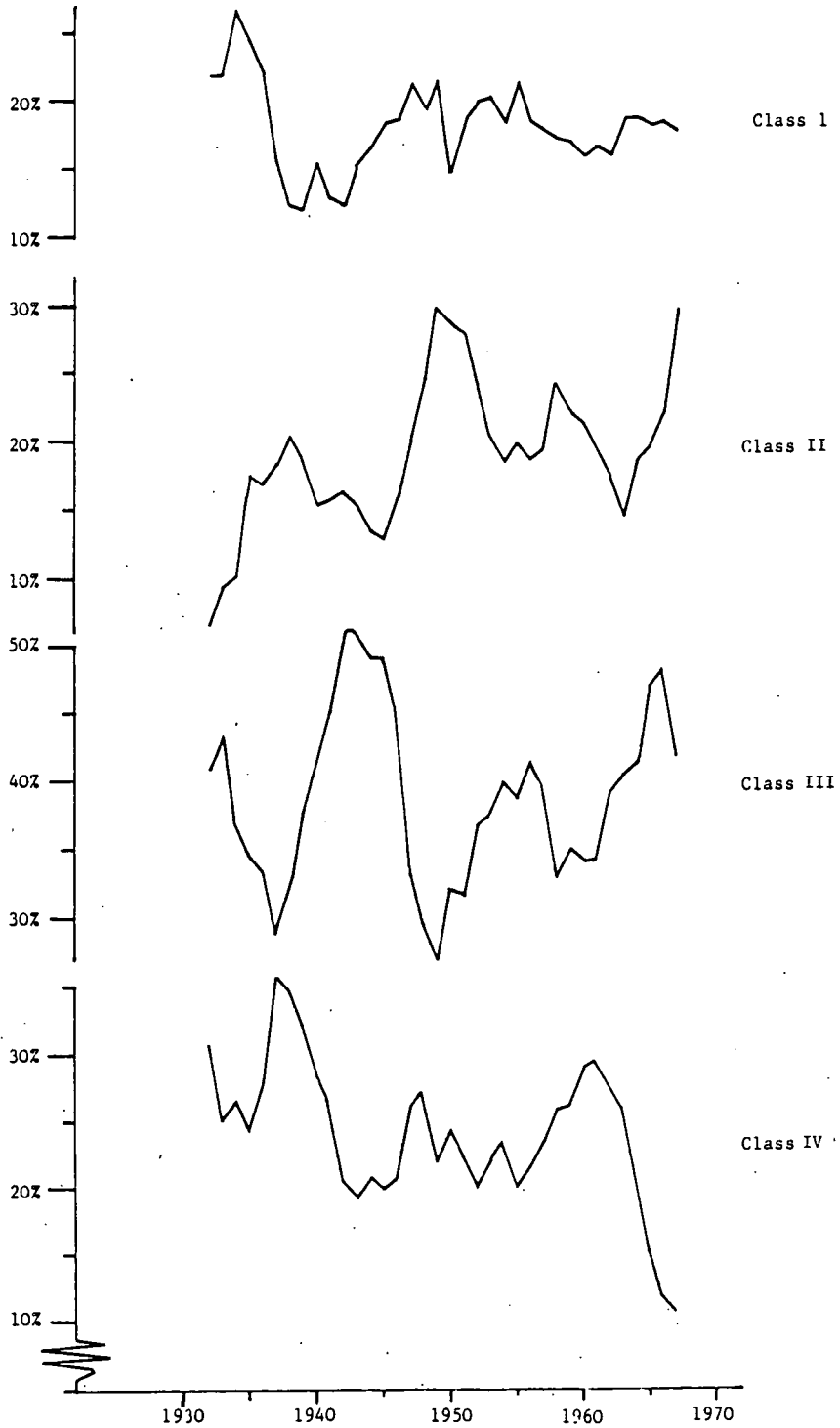
less steady economic growth, further technological innovation, the flowering of the welfare state, and ever greater economic concentration. What is interesting about this period is the relative decline in upward mobility which appears from the 1955-59 cohort onwards. Since we have no wars or depressions to provide an explanation, we must adopt another tactic, and examine the data in finer detail. The first stage will be to disaggregate the non-manual category into its four main classes, and the second stage will be to look at industrial composition.

Disaggregating Non-Manual Mobility: occupations.

A breakdown of the non-manual sector into its component occupational categories will enable us to see whether the changes in Fig 8.2 and 3 are uniform across the sector or are comprised of different factors.. (7) In terms of the explanatory model which introduced this chapter, this represents an exploration of the changing proportions of non-manual occupations and mobility at an aggregate rather than an industrial level. The result is Fig 8.4, which clearly shows dissimilar profiles for the four classes; (follows on next page). Not only are the general trends different, but there is little coincidence of peaks and troughs. Thus classes II and III tend to show an increasing contribution to mobility in the latter part of the period, while class I fluctuates between 15 and 20% and class IV declines. Throughout the period, class III is the largest single source of the mobility reported in the previous graph. There is also a very approximate coincidence of that class's peaks (e.g. the early mid-1940's, and mid-1950's) with the troughs in classes II and IV, and vice versa. This pattern disappears after the early 1960's

(7) That is to say, the mobility from manual to non-manual is disaggregated according to destination class. This omits any mobility within the non-manual classes, such as from Class IV background to Class I destination.

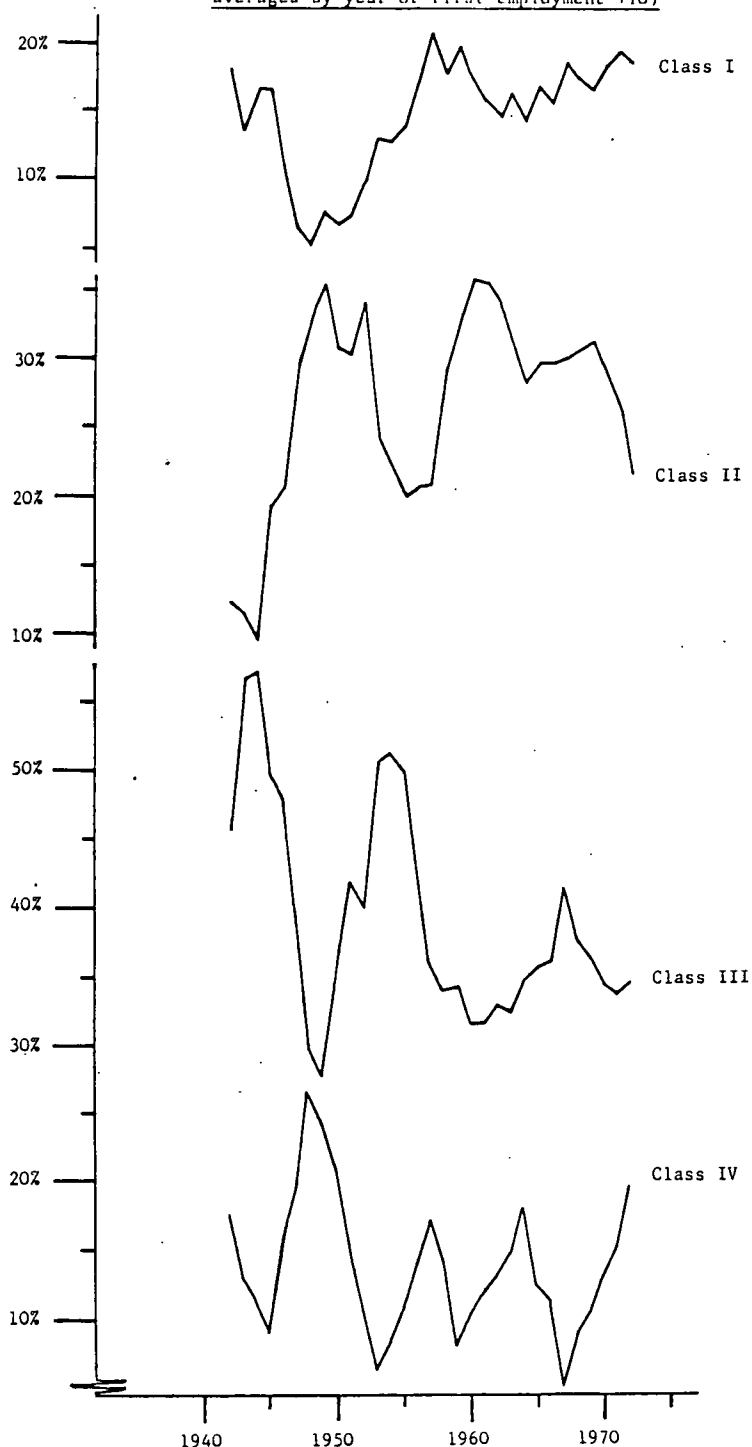
Fig. 8.4. % of Total Upward Mobility Distributed Among 4 Classes
(moving averages by year of first employment)



when class II expands its share of upward mobility when class III is also expanding its share. (8)

- (8) As noted above, the data for occupation 10 years after starting work broadly follow the same profiles, but with a smaller proportion in class IV (by around 10%) and equally a larger one in class II: class I is a little less important until later in the period, while class II starts close to the first job position but ends with a low and decreasing percentage. The profiles also tend to be a little more volatile, as Fig. 8.5. shows.

Fig 8.5: % of Total Upward Mobility 10 Years After Starting Work, Distributed Among 4 Non-Manual Classes (moving averages by year of first employment +10)



... /Contd.

Clearly there is no simple pattern here on which to base a parsimonious explanation. Two possible approaches to explaining the data are those of differential occupational change, and changes in the 'rules of recruitment'. The first of these was implicit in the earlier discussion of the socio-economic groups' performance since the First World War. There we saw that different groups expanded at different rates, so that if the same were true of the four non-manual categories used here, it would be possible to account for their varying contribution to mobility in terms of their size, rather than any change in the rules of recruitment which determine how people are selected to fill the occupations. To take one specific suggestion, if Parkin is right that there is some kind of buffer zone effect, an expansion in size of classes III and IV would increase overall mobility and their share of it, whereas an expansion of classes I and II would not greatly alter the absolute or relative share of mobility.

On the other hand, it is possible to argue that what has happened is some significant change in the way the allocation mechanisms operate, such that the sons of non-manual workers are better able to capitalise on the initial advantage of their family backgrounds. For example, Halsey has recently argued that in England and Wales the expansion of secondary and higher education only served to provide opportunities for the expanding numbers of middle class children, rather than opening up education to the children of the working class (Halsey 1980). If we combine this with a credentialist argument that there is a tightening bond between education and occupation (as argued for example by Little and Westergaard, and more recently by Raffae (1981)) then we can explain greater success for non-manual children in terms of the mechanics of selection, and treat the occupational structure as constant.

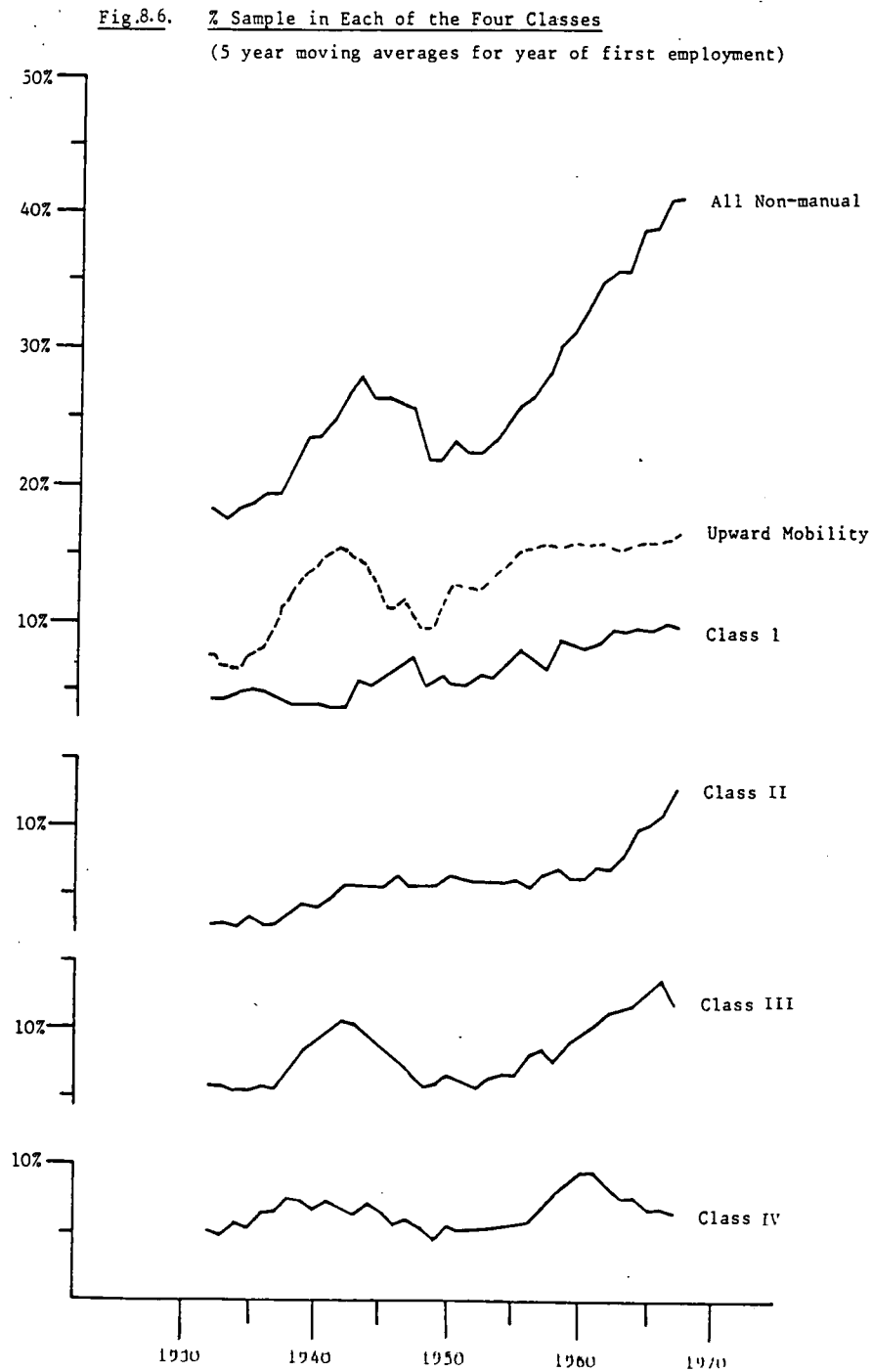
And of course, like all good sociologists, we can 'have our cake

(8) ../Contd.

Once again, the similarity allows generalisation from the first job data, and suggests that mobility is a combination of processes which determine the entry distribution, and a more or less constant career process which carries forward that distribution into later life.

and eat it too' by saying that a third model would be a combination of the two. The arguments drawing on education will be taken up in Chapter 9, while we deal with the 'structural change' arguments here.

The first step is to examine the ways in which certain parts of the non-manual sector have changed. Fig. 8.6 plots the four occupational categories for comparison with the overall change in the proportion of non-manual occupations. As we might expect, the four 'classes' have different



profiles. (9) Classes I and II are the most similar, showing small but fairly steady growth: class I has very slightly more of the peak and trough effect during the 1940's, while class II shows rather faster growth in the 1960's. In contrast, class III is more volatile, with a marked peak and trough, followed in the main by an increase through both the 1950's and 1960's. Clearly class III's decline during the 1940's is a major factor in the early part of the overall non-manual profile, while together with class II it is an important contributor to the upswing in the later part of the overall profile. Class IV shows an earlier (but very small) growth than the others, which soon fades: it is not until the late fifties that it recovers, but the last part of the profile is downwards. (10)

During the first two decades, the fit between overall mobility and the composite classes is close to what Parkin's buffer zone thesis would predict. The change in the mobility rates broadly follows the peak and trough shown most clearly in class III but also in class IV. As these are taken to be more accessible to the sons of manual workers, the mobility rate tends to follow these classes. This pattern is overlaid on a smaller upturn of the other two classes which Parkin argues are a better hunting ground for the sons of non-manual workers.

It is probably the latter part of the profiles, say from 1955 on (remembering that the 1955-59 cohort is plotted as 1957) that is of most interest. At first, although the mobility percentage line is beginning to deviate from the overall non-manual line, the class lines are generally still

(9) It will be recalled that the sample data are drawn from a different population from those of the census. Thus while we would be predisposed to find variations between the classes, the exact nature of the profiles would not be expected to follow the census results.

(10) The data on occupations 10 years after starting work cannot be used to analyse the later trends, because younger men in the sample had not been employed for 10 years at the time of interview.

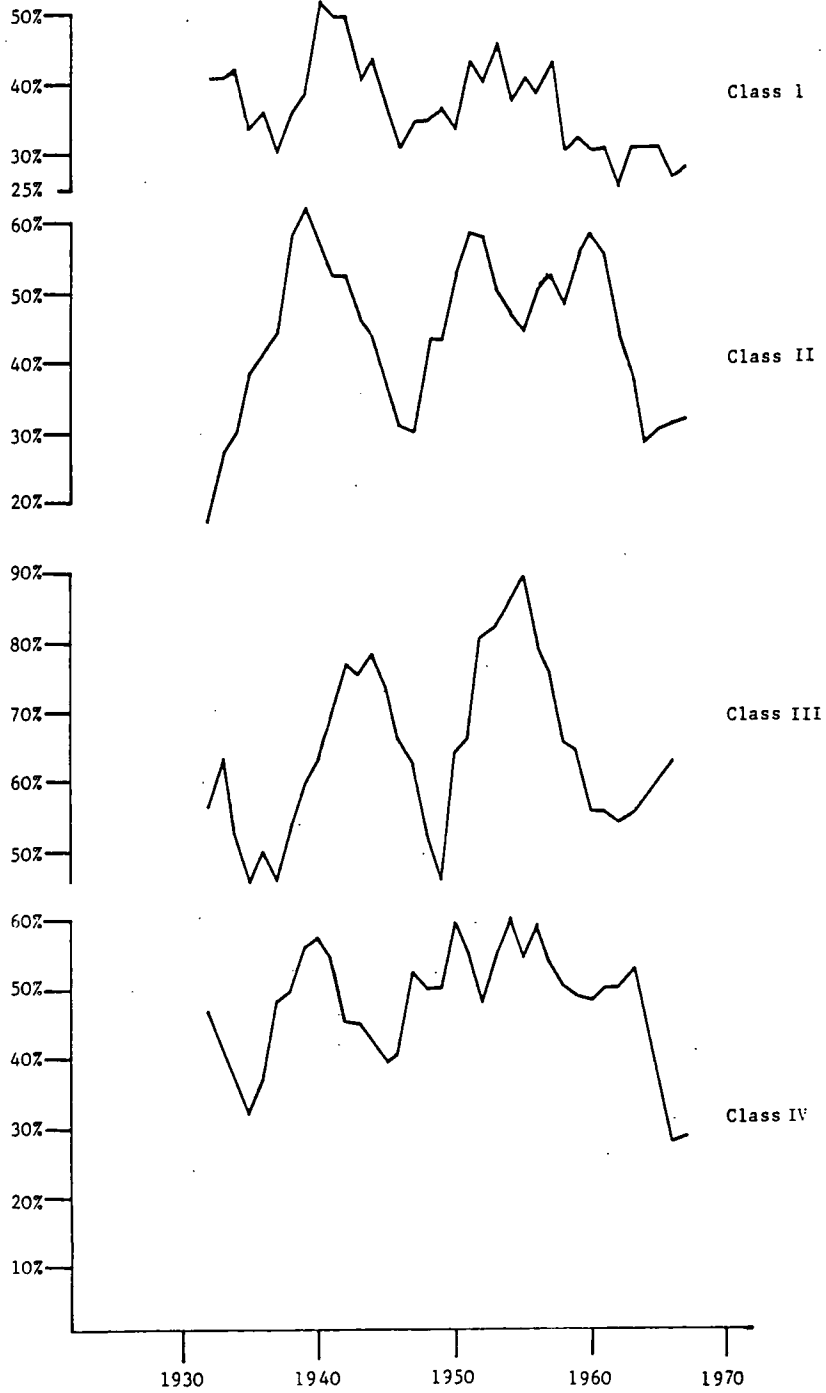
upward. Then, in the cohorts plotted for the years 1958-62 (cohorts 1956-64), classes I and II show less growth than III or IV. Thereafter, class IV declines, while class II climbs (cohorts 1961-70 (11)).

What does this imply for our model of mobility? The later trends in mobility that we are seeking to explain coincide with rather different periods in occupational terms. In the late 1950's, the faster growth is in the two classes III and IV which according to the buffer zone thesis should contain the most mobility: instead mobility shows little growth. In the 1960's, the mobility trend does not change much (if anything it rises), despite a decrease in class IV and an increase in class II which on balance should have decreased mobility, because class IV is supposed to be more accessible to the sons of manual workers than class II. This confirms the argument that the buffer zone thesis is in error, as suggested in the previous chapter: at the very least, it is evidence that the strength of the buffer zone effect varies.

This can be clarified by looking at the mobility flows into each of the 4 classes, as in Fig. 8.7 (Fig. 8.7 follows on the next page). Unfortunately this breakdown results in relatively small cell sizes, so that the percentages are volatile. Fig. 8.7 has been therefore plotted at half the vertical scale of the earlier graphs, but the extent of the variation is striking: for example, class II goes from 18% upward mobility to 62% upward mobility in a period of only seven years. This suggests

(11) The apparent contradiction of talking about cohorts '1956-64' and '1961-70' is due to the use of moving averages, which partially overlay successive measurements. It would appear from these data that somewhere in the early 1960's a new occupational trend developed.

Fig.8.7 % of Each Non-manual Class Recruited from Manual Origins
 (5 year moving average, first job)



that Parkin is wrong both absolutely and in terms of variation over time. Not only do classes I and II recruit in excess of 30% of their members from manual workers sons (and much of the time even more), but there are considerable fluctuations over time.

A comparison of Figs 8.6 and 8.7 should help to explain the patterns in Fig 8.4. For example, class I combines a small increase in scale with a decrease in recruitment from manual origins: the net effect is that its contribution to upward mobility tends to be relatively stable and if anything very slightly less towards the end of the period than earlier. Class II's contribution seems to be mainly dominated by its fluctuations in recruitment, rather than by its expansion, although this generalisation does not hold true for the last five years when the size increases while its recruitment decreases.

The third of the classes has a more profound effect on overall mobility. Although it is not noticeably larger than the other classes (Fig 8.6) it contributes at least a third of all mobility (Fig 8.4) rising to about half in the early 1940's. Throughout the period, with only three exceptions, half or more of its members are recruited from manual backgrounds (Fig. 8.7). The pattern does vary, showing a trough in the late forties (like the overall trend), followed by a very considerable peak in the early fifties, declining to a low around 1960 and then beginning to recover. However, in the 1950's this is not strongly reflected in its contribution to overall mobility (Fig. 8.4) because these years were a time when class III was relatively small, and it is only in the sixties that there is a coincidence of expansion in its scale and in manual recruitment. It is worth noting, on the other hand, that class III shows the most marked peak and trough effect of the four classes during the first two decades, and that this roughly coincides with a similar (if slightly later) peak and trough in its

recruitment from manual origins. This goes a long way to localise the 'war effect' on the shape of the overall percentage non-manual and gross upward mobility lines in Fig. 8.4

In the first two decades, as we observed earlier, class IV also has in much milder form this peak and trough effect, and while its recruitment pattern runs two or three years in advance, this helps to explain its comparatively large contribution to mobility in the first half of the period. Again, its numbers increase in the late fifties, when its recruitment from manual origins was running at about 50%, but then the class contracts, its upward recruitment drops sharply and its contribution to overall mobility goes from 29% to 5% in seven years (the years, coincidentally when overall mobility stabilises and then begins to climb slowly).

Are there any general conclusions to be drawn from these data? First, at a general level all the classes make important but dissimilar contributions to upward mobility, which vary considerably over time. Second, there is no evidence to suggest that when a class is expanding, manual workers sons automatically stand a better chance of recruitment than those with non-manual origins. This may happen (classes III and IV in the thirties) but not necessarily (e.g. class II in the sixties). Conversely when a non-manual class is declining in scale - which really only applies to classes III and IV for part of the period - this seems to disadvantage those from manual origins more than those from non-manual backgrounds, as the 1940's for both classes, and the 1960's for class IV, show.

As far as the change in relationship between overall occupational distribution and mobility post-1960 is concerned, it appears that this is initially repeated in classes II, III and IV, with no further increases in their mobility rates in the second half of the 1950's (plotted at year 1955). In the late-60's, classes II and III begin to recruit a few more upwardly mobile personnel but class IV is less available both in terms of scale and

recruitment. Thus, as argued in the previous chapter about mobility to 'present occupation', it is the combination of a change in occupational distribution and the rules of recruitment which determines the mobility rate. The two factors may operate in the same or contrary directions: the logical set is given in Fig. 8.8.

Fig. 8.8: Mobility Factors

		Manual Recruitment	
		expanding	contracting
size	expanding	Mobility INCREASES (e.g. cl III & IV in 1930s)	Mobility may INCREASE or DECREASE (e.g. cl III c 1940 versus cl I in 1960s)
	contracting	Mobility may INCREASE or DECREASE (e.g. cl III c 1950 versus cl III in late 1940s)	Mobility DECREASES (e.g. cl IV in late 1960s)

Expansion in size is a more common pattern than contraction, and to a lesser extent so is expansion of manual recruitment although here there is much more fluctuation in rates of changes.

Explanations of why the occupational distribution and rules of recruitment change are therefore needed. It is tempting to seek the latter in terms of the former: as the demand for labour in one class varies, it produces excess demand or supply for the other classes by releasing or drawing off job applicants from them. In the late 1960's, the contraction in size and recruitment in class IV would in this way result in what in former times

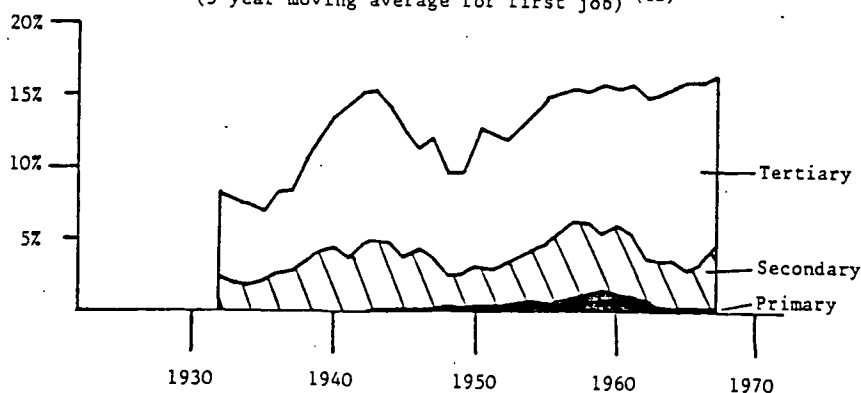
would have been upwardly mobile recruits to class IV becoming competitors for classes II and III (in a market perhaps made easier because more of class I members are recruited from the non-manual sector, so reducing their need to seek class II and III jobs). We certainly need to remember that the four classes are part of one economic system, but it is premature to adopt a displacement model. That would imply that the whole of the non-manual sector is a single labour market: if that were unequivocally the case, one might expect more uniformity of profiles across the four classes. Even if such a displacement model were acceptable it would still be an explanation dependent on changes in the occupational distribution, that is to say, on the organisation of production of goods and services. The next step is therefore to consider the industrial composition for the same period for indications of the changes which have been discussed in earlier chapters, and which could be directly used to explain mobility.

Disaggregating Non-Manual Mobility: Industries

We can now return to the explanatory model in Fig 8.1 and examine variations between industries. One of the more obvious explanations for occupational change is to look at the shift in industrial employment from primary to secondary sectors, and from secondary to tertiary sectors. This can be done for the whole period, but it is the later part that is of most interest. To simplify the task, primary industry can be virtually discounted as a contributor to national upward mobility trends. The numbers of mobile men in primary industry in some of the cohorts are, quite literally, ones or twos, and therefore no basis for any talk of trends. At its maximum (in the inter-war period) primary industry's share of the total labour force was only just over 20% and for much of the period it was less than 10%. Of these, barely 1 in 10 were 'non-manual' jobs, and almost all of these were taken by the sons of non-manual workers. Of course, we know

that this sector contains many small enterprises where the term 'non-manual' is an inappropriate synonym for 'ownership', and first jobs do not normally involve ownership. The farmer's son who works the farm often does so in the confident expectation of taking over from his father in due course. As agriculture, fishing, and mining are either rural, coastal, or geographically-focused occupations, their importance in some regions would be greater. Where that were true, the net effect would be to reduce mobility opportunities for the local labour force. On balance however, we shall not discuss primary industry any further, despite its contribution to immobility and its 'release' of potential workers caused by its decline after the war (for details see Payne et al, 1983b).

Fig.8.9 Proportions of Upward Mobility in 3 Industrial Sectors
(5 year moving average for first job) (12)



- (12) Once again, the plot for the jobs 10 years later is very similar. This does not, of course, account for men changing between industrial sectors. The main practice is not to change, as Table A shows

Table A : Inter-Sector Shifts in the first 10 years of employment

First Employment	Employment after 10 years work			
	Primary	Secondary	Tertiary	Total
Primary	11.3	1.6	4.1	17.0
Secondary	1.1	21.7	8.8	31.6
Tertiary	1.7	6.8	42.9	51.3
Total	14.1	30.1	55.8	n=4760

Even in 10 years, there is evidence in the marginals of the underlying employment structure changing in the expected direction. Very few men transferred into primary industry (and not many more left it). The secondary sector exchanged some labour with the tertiary sector, but the latter was a small net beneficiary. A total of just over three-quarters of the respondents remained in their original industry.

As Fig 8.9 shows, the three sectors ⁽¹³⁾ contribute very different amounts of mobility. Between 2% and 5% of the sample were upwardly mobile on entering manufacturing industry: this represents between about 15% and 30% of all mobility. In service industry, mobility fluctuates between being about 6% and 13% of the sample, that is, accounting for between 70% and just over 80% of all upward mobility. More obviously, the difference between the two sectors varies, with the wartime peak being more noticeable in the service industries, and a widening gap after the late 1950s as the secondary sector contributes less mobility while tertiary sector mobility increases.

On the other hand, tertiary industry accounts for more non-manual jobs than other sectors; during the thirties this was about 14% of all employment. This 14% represents about 1 in every 4 tertiary sector jobs. Secondary sector non-manual jobs are only about 4% of the total labour force, and this kind of work is only about 1 in every 8 jobs in the sector. Although the overall size of the sector is fairly stable despite the War, the pattern of non-manual jobs changes. In the service sector non-manual work increases from a quarter to more than a third, while in manufacturing the increase is from one-eighth to one-fifth. In other words, although in both the two sectors there is an expansion of non-manual occupations (and arguably manufacturing expanded relatively more, considering its smaller base) the greater absolute size of the tertiary sector means that its total expansion was greater.

The same logic applies to the mobility rates. Secondary industry has a higher rate of upward mobility, but its total contribution is lower

(13) Secondary industry consists of SIC (HMSO, 1968b) standard orders 3-19 (basically manufacturers of food; drinks; tobacco; chemicals; metals; mechanical, electrical instruments and engineering; shipbuilding; vehicles; metal goods; textiles; clothing; construction materials; timber; paper and printing). Tertiary Industry consists of standard orders 20-27 (basically construction; utilities; transport and communication; distribution; finance and commerce; professional and scientific services; public administration and defence).

because it contains fewer non-manual posts. Even though it offers its employees between a 66% and 75% chance of upward mobility ⁽¹⁴⁾, compared with a 45% to 60% chance in service industry, the latter is four or five times bigger, and so has a bigger absolute effect on mobility overall. Thus, the 'war effect' (which is when the higher of the above chances of mobility occurred) may be more dependent on scale than on changes in the recruitment process.

However, in the early post-war period, while the overall balance between the broad sectors does not change much, the proportion of secondary industry jobs which are non-manual falls from around 20% in the war to about 10% by the early 1950s, before recovering towards the end of the decade. In the service industries, although there is a slight fall in the proportion of non-manual jobs, it is only a few percentage points, and that only to the mid-fifties. The distribution of non-manual opportunity thus shifts in favour of tertiary industry particularly by around 1960. Since the overall size of the tertiary sector was not growing much during the late 1940s and 1950s, then there must be internal changes going on. We know from several sources that the different components of the service industries require different mixes of labour, and that some components (construction, transport and distribution), which employ more manual workers, reduced in employment, while others employing more non-manual workers (like commerce, professional service, and public administration) expanded, particularly after 1961 (see Census Industry Reports for 1931, 1951 and 1961, and Kendrick et al 1982b).

(14) That is, between two-thirds and threequarters of its non-manual jobs went to the upwardly mobile.

If we now turn to the final part of our period, the 1960s, something different again is happening. As the decade proceeds, the size of the tertiary sector as a whole expands from about half to almost 60% of all employment, while the secondary sector falls from just over a third to about 30%. At the same time, however, the share of its employment which is non-manual increases, from about 20% to 27%, whereas the non-manual proportion of tertiary sector jobs increases from just over a third to nearly a half. The net effect is to further shift the weight of available non-manual employment across to the tertiary sector (from around 75% by the late 1950s to about 80% ten years later).

We saw in Fig. 8.9 that during the decade, more of total mobility had been generated in the tertiary sector. This can now be explained in terms of the balance between the sectors, and the sector-specific mobility rates. We have already observed that it is manufacturing industry which has the higher mobility rates: manufacturing industry is in relative decline, compared with the service industries, although its non-manual component is still showing net absolute increase. However, the proportion of these jobs going to the sons of manual workers declines steeply after the late 1950s, from around 66% to about 40%. In contrast, not only is service industry non-manual employment increasing, but its upward mobility rates do not change so drastically, showing a drop of about 5% at most, to a final level similar to that of the manufacturing sector, ie. 40%. The net effect on mobility is therefore a product of several processes, of which the overall growth in the tertiary sector is the main contributor. If we project the patterns of the 1950s onto the cohorts of the 1960s, it is clear that the more marked deviations between expectations and observations are those arising from this structural change. This is not to say that

the mechanics of recruitment, i.e. the decline of all upward mobility, or the growth of non-manual occupations per se have no effect: rather, their impact is less than might be expected on the basis of more traditional mobility analysis.

There has been a tendency in some discussions of mobility to talk in terms of 'the middle class exploiting their initial advantage of birth and converting it into occupational advancement'. This rhetoric is inappropriate for a description of mobility of the 1960s. The middle class do not control service industry in that way; it would be the worst kind of conspiracy theory to suggest that the expansion of the tertiary sector was a result of anybody's attempts to improve mobility chances for their offspring! Similarly the decline in secondary industry's share of employment has the hidden effect of reducing mobility, and so indirectly it impacts on the class structure. But that decline is an outcome of general processes in the development of capitalism, not specifically class or even labour policies. In this perspective, strategies of professional closure or educational investment do not seem to be the crucial issues in explaining mobility as against general changes to the labour market caused by processes internal to the major sectors.

Disaggregating Non-Manual Mobility: the Occupation - Industry Interface

The final stage of the examination of trends in mobility is to recombine the two perspectives of occupation and industry. To some extent, the industrial perspective includes the occupational, because it has involved discussion of the proportions of non-manual occupations. However, a more detailed account of the components of the non-manual class will help to establish a better connection between the industrial trends and the contents of the more conventional mobility table. Rather than

repeating a fairly lengthy exposition for the whole sample, the argument can be more interestingly developed by re-grouping the industries in the light of earlier observations. In the manufacturing sector, the old staples - which featured so predominantly in the account of Scotland's economic history - are distinguished from the rest of the sector. (15). Tertiary industry has also been dichotomised to give one group that is more clearly knowledge-based, and another which is more closely related to production (16). This also permits a direct link to the theories of industrial society discussed above, by identifying those 'advanced' industries that are regarded as typifying modern society. To cover the maximum time span, the data presented are again those for first job, but the sub-division of the sample inevitably results in smaller numbers. Therefore most of the evidence is presented as larger, 10-year, moving averages instead of the more precise 5-year moving averages previously used.

Although the main interest does not lie in the overall scale of the 4 industrial groupings, it is worth noting their general performance at the outset. In the early years, the Staples run at just under 25% of the truncated sample, with 'Light Industry' less than 20%, 'Basic Services' over 40%, and 'New Services' around 15%. By the later years, staples are down to under 15%, Light Industry marginally up at just over 20%, Basic Services are at about 37%, while New Services make up the rest with around 28%. The two largest changes are the decline of the Staples, and the growth of the New Services, changes coinciding with the period when the early 1960s incomers replace those who entered in the early 1950s, i.e. relatively late on .

Even with 10-year moving averages, analysing each of the four industries results in very small numbers, so that percentages are prone to fluctuate. Although each sector will be considered in turn, the reader

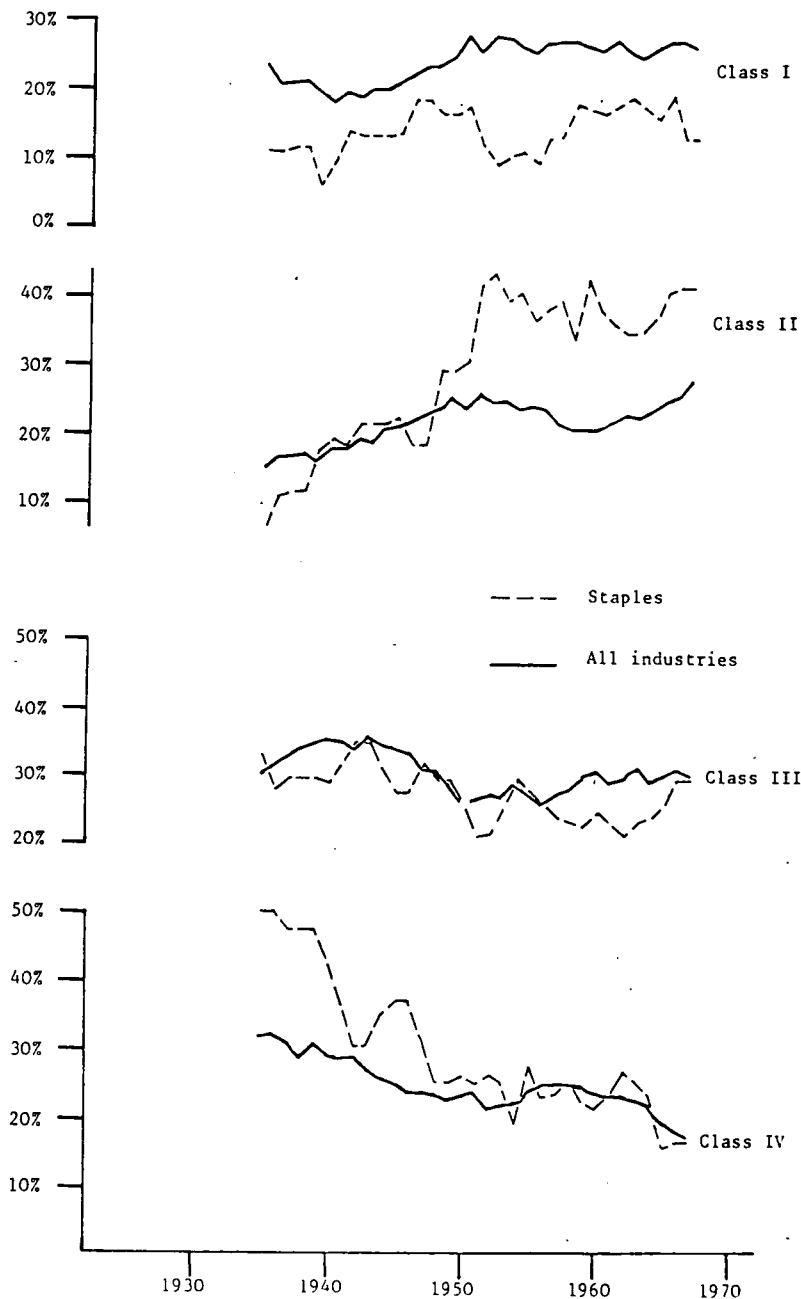
(15) The staples are taken as SIC minimal list headings 101-9, 261-263, 311-323, 370, 411-429 and 481-489. The remaining manufacturing industries 'light industry' - are 211-499, excluding the staples.

(16) The knowledge industries are minimal list headings 860-906, while 'basic services' (i.e. construction, transport, distribution and public utilities) are 500-832. Other primary industry is omitted.

will recognise that considerable caution in interpretation is needed. In particular, one needs to look at trends rather than short-run waverings.

The first industry group to look at is the traditional sector of Old Staples. Fig. 8.10 plots the occupational composition of its non-manual classes against the pattern of the non-manual classes for the whole sample. The latter are simply the data presented before as 5-year moving averages (as a percentage of all occupations) now re-expressed as 10-year averages (and as a percentage of all non-manual occupations). As compared with the lines showing the Staples, the larger base of the 'all industries' category stabilises its plotted lines.

Fig 8.10: % of Non-Manual Employment in 4 classes for staples and all industries (10-year moving average, first job)



The two more obvious changes within the Staples are the rise of class II and the fall of class IV; by comparison, the small increase in class I and decrease in class III are relatively insignificant. However, whereas the latter is fairly close to the overall pattern, class I runs at a consistently, and at times considerably, lower level in the Staples than the overall pattern. Conversely, after the war, the Staple industries provided employment for a disproportionately large number of men in class II occupations. The same period saw its employment of men in class IV fall into line with the overall pattern.

Two conclusions can be drawn from these findings. First, the Staple industries have used a distinctive mix of labour throughout the period, predominantly characterised by a smaller proportion of managerial and professional grades. This may be a result of the production process; for example, coal requires fewer highly developed technological tasks to be carried out because its relatively simple and stable technology involves little research and development work ⁽¹⁷⁾. It may also be a result of the organisation of the sector in large units, servicing a market that is not fixed (in that it is a declining market) but which changes slowly as far as product specification is concerned. To the extent that a nation or a region has a high proportion of its labour force engaged in Staple industries, the employment opportunities are concentrated in relatively lower ranked occupations.

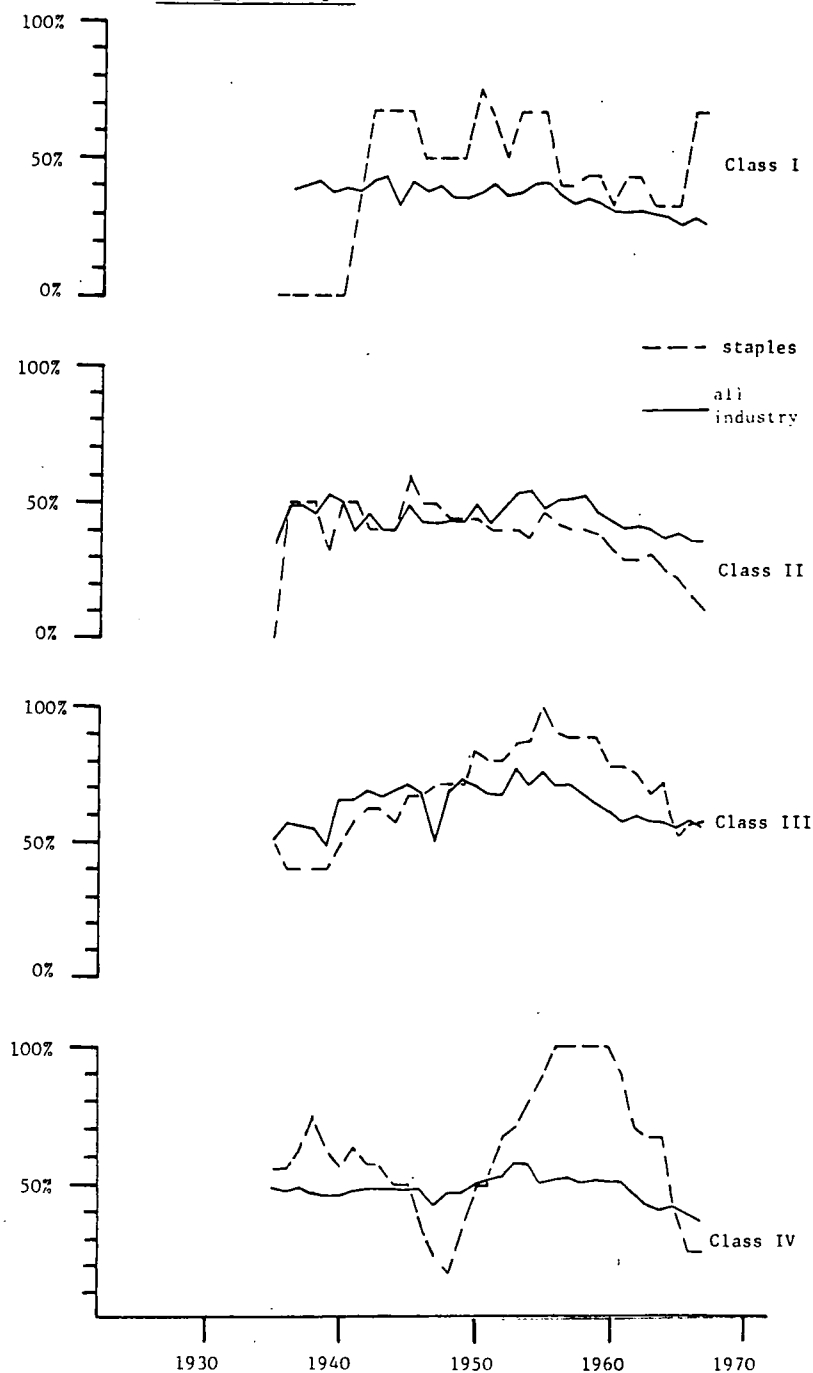
The second conclusion to be drawn is a modification of the first. The distinctive profiles of the Staple sector are not constant. The later years show a tendency to use fewer male routine white collar workers, but a marked increase in semi-professional and technical staff. The latter is most marked after the war, suggesting - if we accept the rationale for conclusion one - that the need for more technologically advanced skills

(17) And much of its innovation arises from mining engineering, which is carried out by firms or research workers outside of mining per se who service the needs of the coal production industry.

has increased since that time. This has been concentrated in class II rather than class I, suggesting not an increase in managers so much as an increase in high grade technicians. It may be that it is still too early for the new post-war intakes to manifest themselves as managers: after all, comparatively few workers are taken on as managers in their first jobs.

If the employment profile of Staple industries is distinctive, does this mean that their patterns of mobility are also different? This can be investigated by plotting their upward mobility against the expected rates based on the overall sample.

Fig. 8.11: Upward Mobility in each of 4 non-manual classes: staple industry and all industry (10 year moving average, first job).



In other words in Fig 8.11 the average rate for a given class in the sample as a whole is compared with the proportion of the destination class which has been upwardly mobile, in the particular industry, thus separating out the recruitment effect from the scale effect. Again taking only broad features because of the small numbers involved, it is clear that Staple industry recruits more working class sons to its class I jobs than the average from World War Two on, whereas its recruitment in class II and III are more typical, even if the latter has slightly lower rates at first, and slightly higher rates in the post war years. Class IV, apart from a dip during the late 1940's, also tends to be recruited more from the working class than the national average. In general terms Staple industry contributes more to upward mobility, for its size, than does the rest of Scotland's industries.

Fig. 8.10. showed that the Staples recruit men for a distinctive set of jobs, which we have speculated to be the result of their organisation and technological character. Their tendency to recruit more non-manual workers from the working class could be also part of this same phenomenon, namely that working class children choose careers (for various reasons) that are different from middle class children, and which coincidentally are to be found in staple industry. A simpler explanation is to take account of industrial geography. Staple industries are geographically concentrated and because they are heavy industries, tend to be large if not dominant employers in their locality. We also know from earlier in this chapter that manufacturing generally provides fewer non-manual occupations (Fig 8.9) so that in other words, the local potential labour force of young workers is already more working class (because more local families are working class) and enters a local labour market which has a limited and distinctive need for certain types of labour (18) This might show more

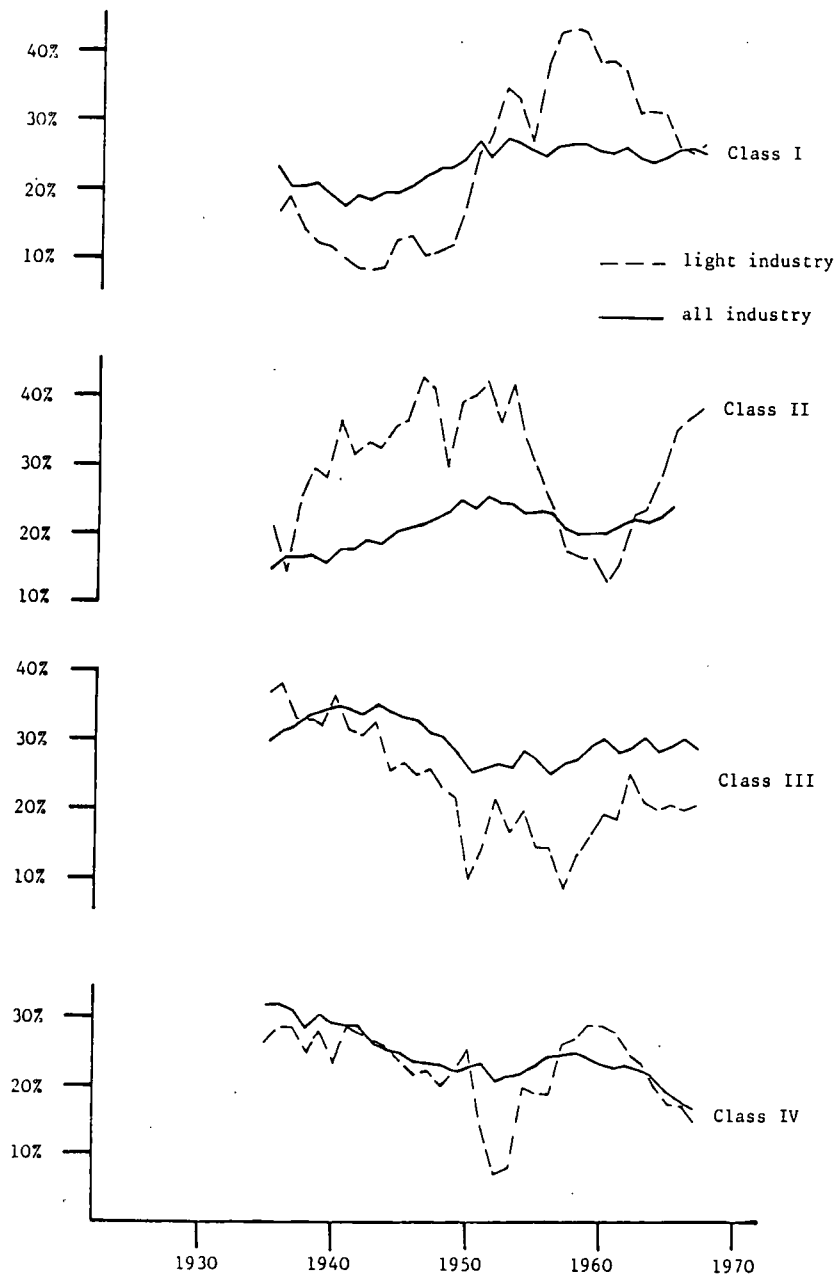
(18) Barker's study of first jobs found the great majority of people were living at home when they started work.

clearly in a regional analysis, but nationally the effect is less obvious: for example the distributions of class backgrounds for men entering the Old Staples is only marginally more working class than for other industrial sectors. Further elucidation of this will have to wait until the other industrial groupings have been analysed: at this stage, the absence of any simple association⁽¹⁹⁾ between the patterns in Figs 8.10. and 8.11 dispenses of any explanation based purely on size or expansion of demand, and so leaves the question of why these mobility rates change still to be answered.

The other part of the manufacturing sector will, for convenience be called 'Light Industry', to contrast it with coal, steel, textiles and shipbuilding, although of course it includes chemicals, vehicle manufacturing, and other large-scale production processes. The scale profiles for 'Light Industry' are given in Fig. 8.12. Here the deviations from the overall pattern also concern classes I and II, in that the former initially runs at a lower level, before changing to a higher level around 1950, whereas the latter shows the opposite of this, with a smaller proportion in the later years. However, class II's decline happens later (c. 1955) and it is not so marked a turn-round as that of class I. The other two classes are closer to the overall pattern, but class III runs at a lower level for most of the period.

(19) In other words, the changes in the two sets of profiles do not occur at the same times, nor do increases in one rate coincide with increases (or with decreases) in the other.

Fig. 8.12: % of Non-Manual Employment as 4 classes for light industry and all non-manual industries (10 year moving average, first job)

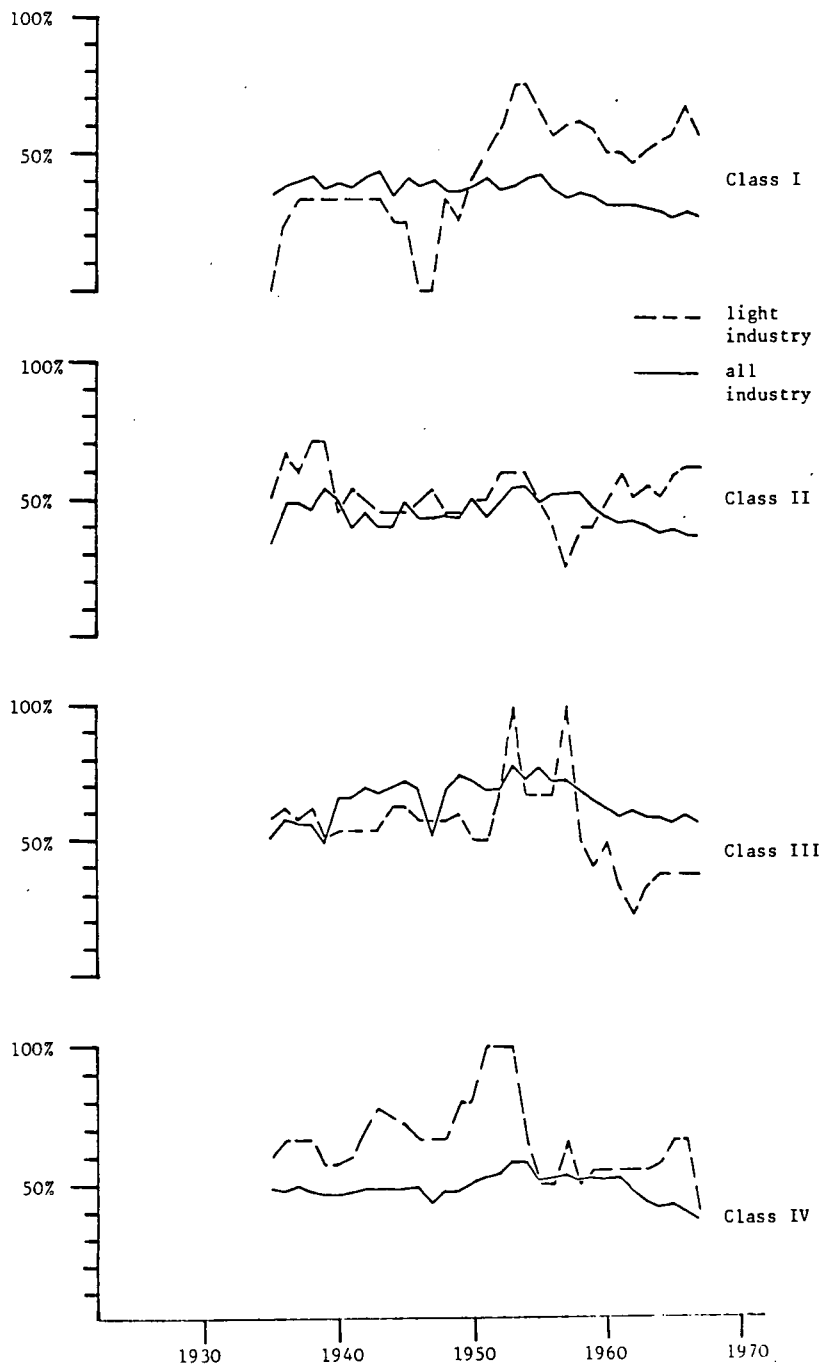


Once again the findings for the particular industrial grouping show a variation from the national economy. Perhaps the most unexpected is the low proportion of class III, which contains the foremen and manual supervisors that one associates with manufacturing. As in the case of the Staples, class III is not strongly represented in secondary industry.

While more comment on inter-sector differences is made at the end of this section, two points about the manufacturing groups can be made

here. First, the profiles of the two do differ. In addition to class III, Light Industry, particularly post-war, has employed more men in those categories requiring higher levels of skills. This has taken two forms: a larger proportion of men in class II occupations before the war, and a larger proportion of men in class I post-war. These findings lend support to the argument that Light Industry, being based on newer technologies and selling to a more changeable market, employs a more highly skilled labour force (as far as the non-manual sector is concerned) than does the Old Staple sector. The opportunities that this affords for upward mobility from the working class can be seen from Fig. 8.13.

Fig. 8.13: Upward Mobility in each of 4 non-manual classes: light industry and all industries (10 year moving average, first job).

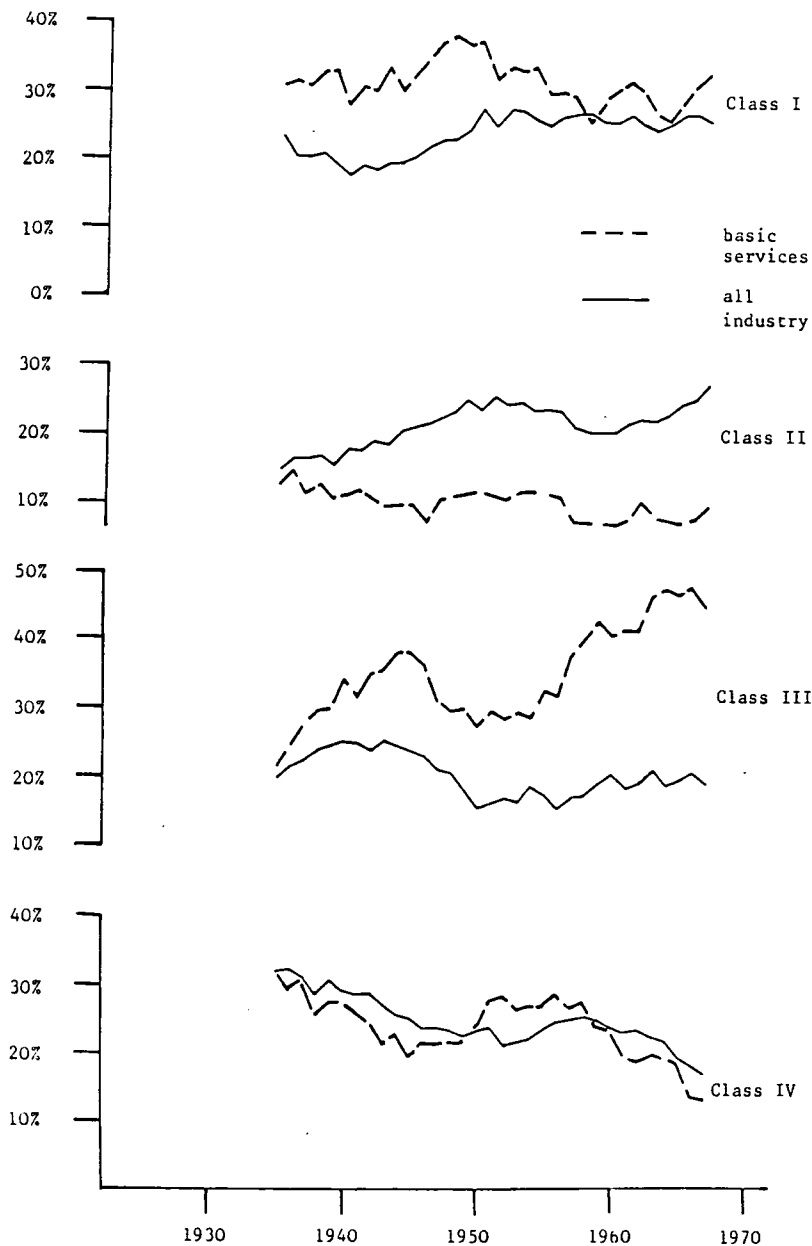


It is interesting to observe that the relatively high rates of mobility to class I after 1950 coincide with the expansion of that class in the previous figure. This did not occur in the expansion of class II in the Staple industries nor does it occur in the pre-war period for that class in Light Industry. It would therefore seem possible that mobility to class I is governed by rules of recruitment that are different from those for class II, a tentative proposition that is also compatible with the class I rates in both groupings. That is to say, in manufacturing industry, mobility to class I is relatively low until around the Second World War, but relatively high thereafter, particularly after the late 1940s. This propensity to recruit from the working class is to some extent hidden by the comparatively small proportion of these highly skilled occupations in secondary industry as a whole.

Turning to the two other non-manual classes, the picture is different again. Class III is generally a relatively poor provider of mobility opportunities (its two aberrant points excepted), and the more so in the later years. If this is related to its small share of such jobs, it is by some mechanism which differs from class I in Staple industry, where it will be remembered that a small share of jobs was on the contrary associated with relatively high mobility rates. Finally, we observe that mobility to class IV occupations is generally higher than average, even in the pre-war period when Light Industry's share of such jobs was very much in line with the rest of the sample. In each of the classes, the main changes in the broad patterns seem to be concentrated in the post-war years, a point that can also be made for Staple industries.

Indeed, we can extend that generalisation to the 'Basic Service' industries of construction, transport, and distribution, the third of our industrial groupings.

Fig. 8.14: % of Non-manual employment in 4 classes for basic services and all industries (10 year moving average, first job).



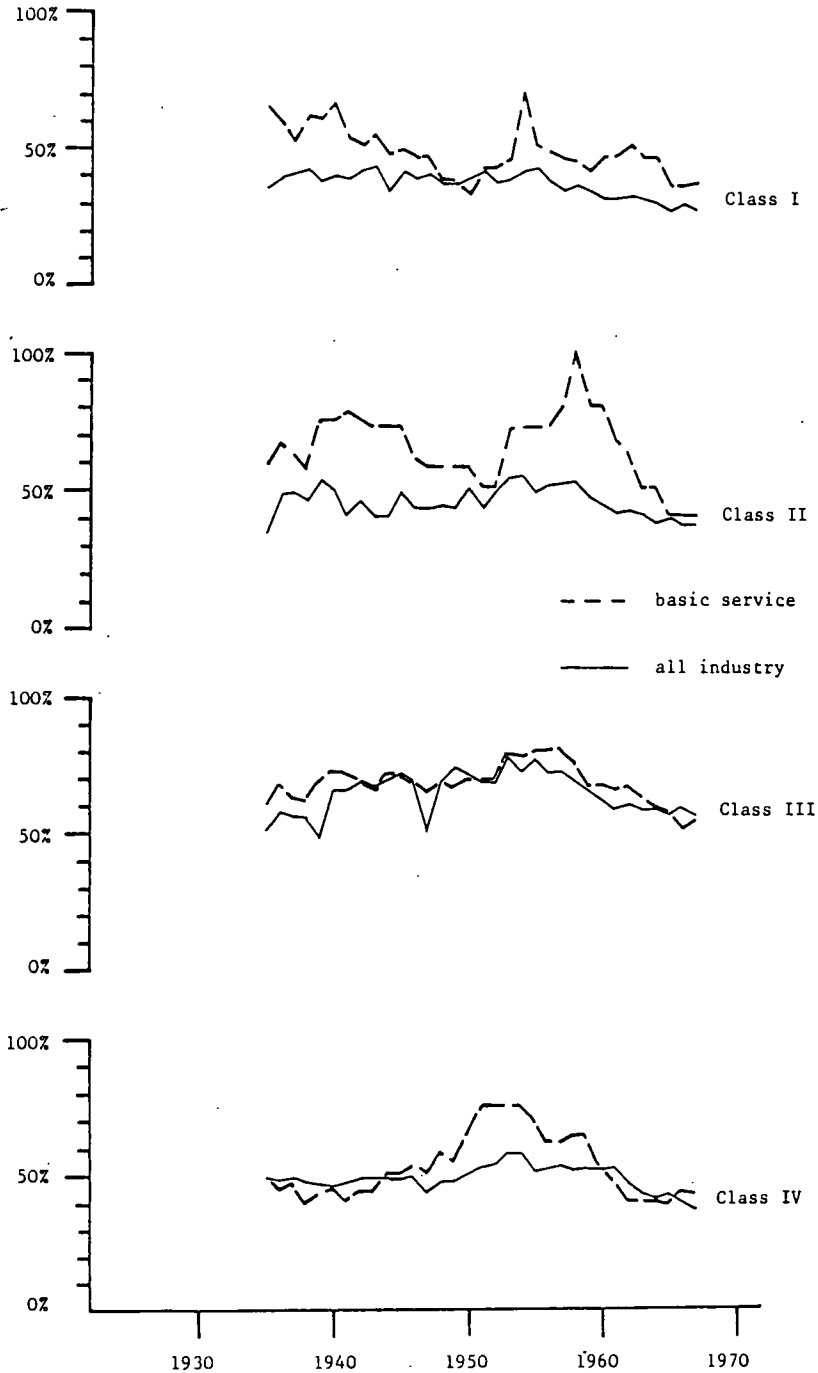
Here, however, the changes are less dramatic, with class I growing more similar to the overall pattern in the 1950s and 1960s while classes II and III continue and increase their tendency to diverge. Class IV is as close to the typical pattern as might be reasonably expected, given the small numbers used for the calculation of the percentages. The major distinctive feature for Basic Service industry is class III: this reflects the structure of construction (and distribution to a lesser extent), where firms operate

in small teams with a supervisor - the site foreman - or where the skilled worker can become a worker in his own right as a mini-sub-contractor. While we have not dwelt on the actual levels, it may be worth noting that in this case the difference between the line for Basic Services and that for all industries is of the order of twenty to twenty-five percentage points towards the end of the time-series.

In the two most highly-skilled categories, there is another case of one being higher (class I) and one lower (class II) than the average, although this is less evident in the post-war years. This high and low effect is the same as Light Industry (post-war) and Staple industry (except that in this latter case it is class I that is low, and class II that is high). Class IV in the Basic Services also resembles the other two industrial sectors in being the class most like the overall pattern. However, overall Basic Services displays a characteristic profile, and as the largest of the industrial groupings, as noted above, it has a greater influence on the overall pattern.

This observation is all the more interesting when the mobility rates are taken into consideration, because these are much closer to the overall pattern than either of the manufacturing groupings. Thus a dissimilar occupational mix is recruited in a fairly typical way. Classes III and IV are particularly 'typical', and even class I, which runs at a higher level of upward mobility for over 90% of the time-points, does not show a marked level of difference.

Fig. 8.19: Upward Mobility in each of 4 non-manual classes; basic service and all industry (10 year moving average, first job)

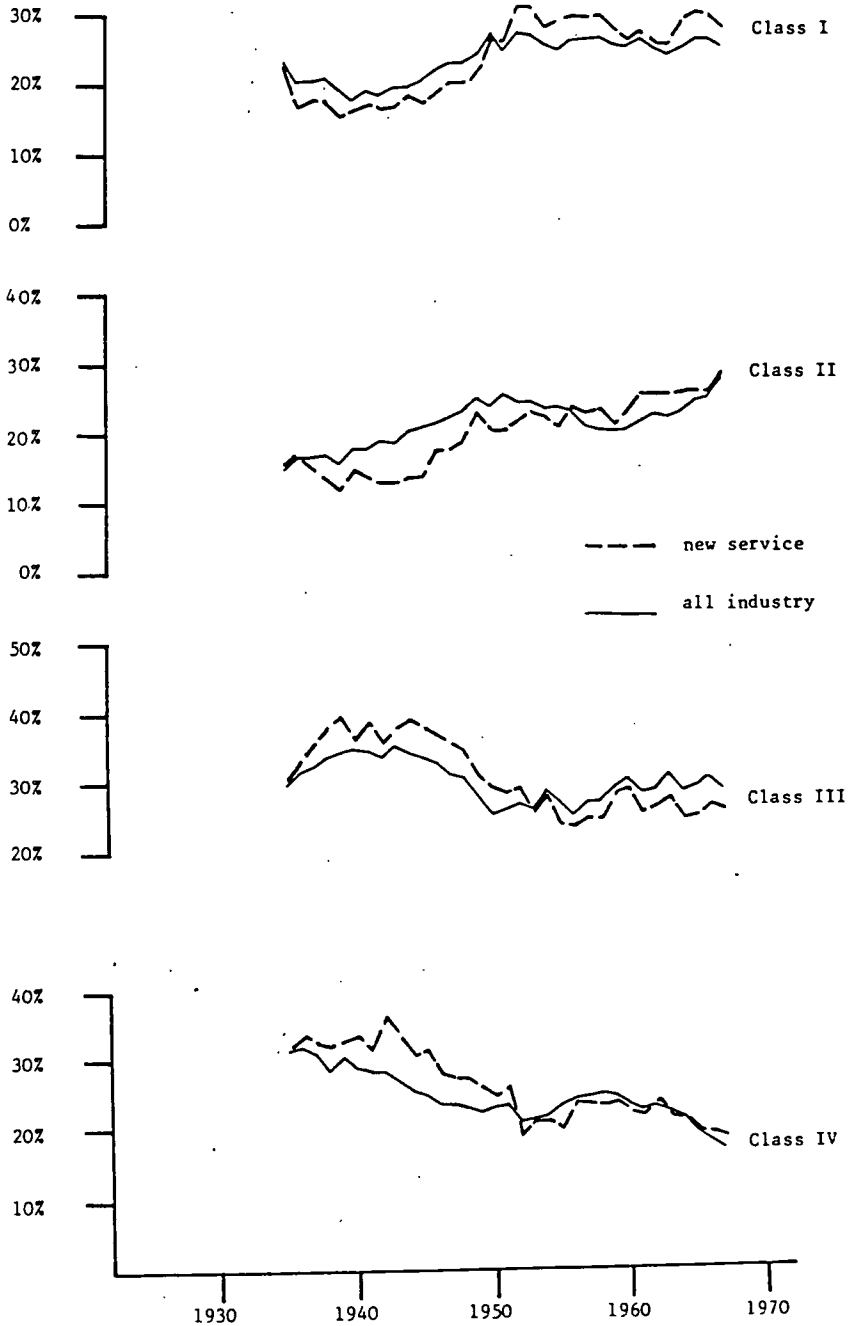


This leaves class II as the 'deviant', but one which in the last few observations is moving closer to the all-industry line. Its dip in the middle of the period coincides with relatively low points in the other classes (albeit class IV begins a period of growth ahead of the others). This is the period in which the war years are shed from the average and

replaced by the early 1950's, the period of transition that was identified as the 'war effect' above. Obviously, 10 year averages blur the shorter run changes; however, similar lows followed by rises were also found in almost all of the occupations in the manufacturing groups.

The last of our four industrial groupings is shown in Fig. 8.16.

Fig. 8.16: % of Non-Manual Employment in 4 classes for 'new services' and all industries (10 year moving averages. first job)

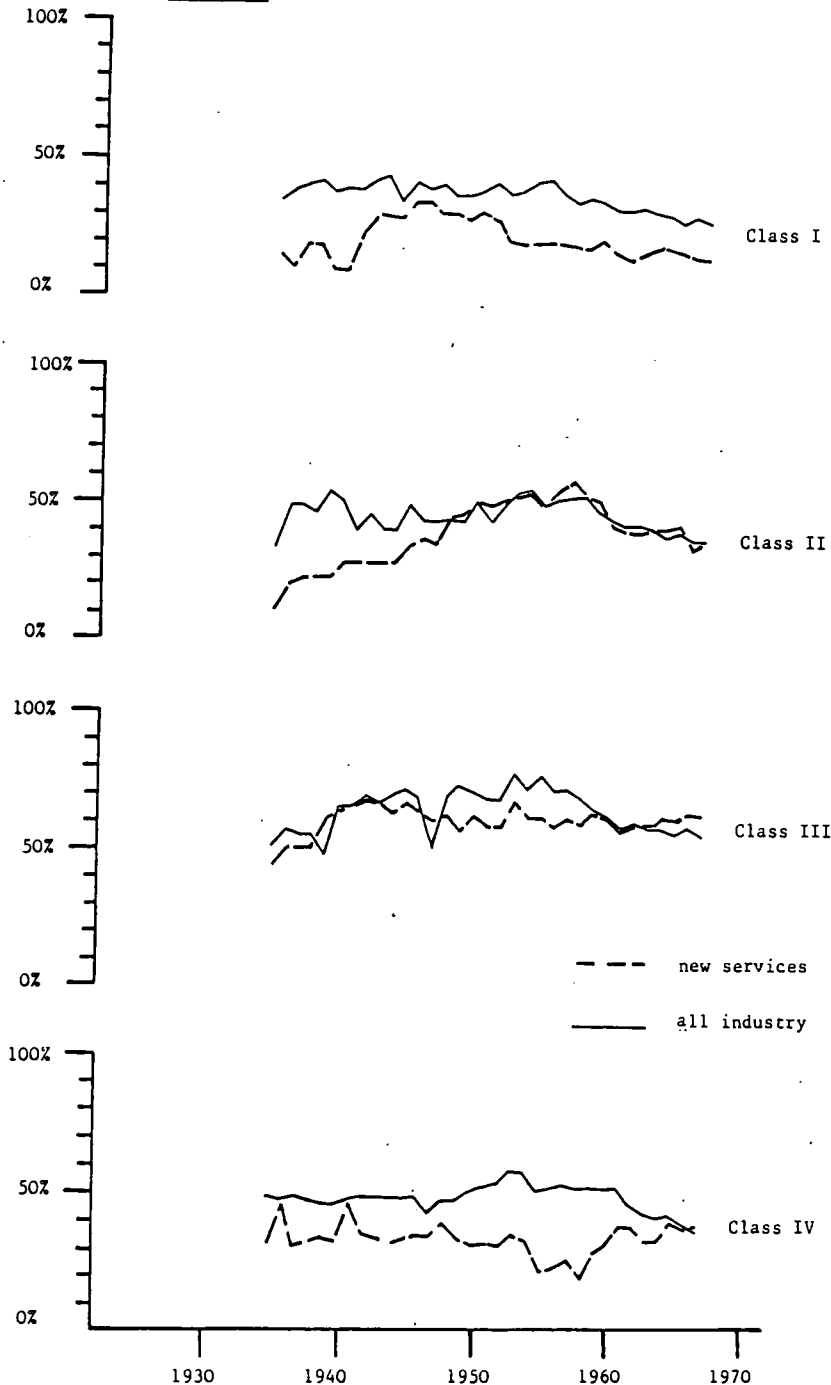


These service industries based on knowledge and organisation of the state, together with commerce contain a larger share of non-manual jobs than do the others, both in that a higher number of all non-manual jobs are found there, and in that a bigger proportion of the sector's employment is non-manual than in the other three groupings. This produces two effects in the profiles. First, the New Services have a greater weighting on the overall pattern, because their non-manual jobs out-number those of the others. At the start of the time series, New Services contained just under 40% of all non-manual jobs; by the 1950's this had increased to 45%, and by the later 1960's, it had risen to over 50%. We would therefore expect its profiles to be close to the overall pattern. Here the immediate post-war years are highlighted as a point of transition. Up to this point, classes I and II were slightly smaller shares of the New Services, but then the difference disappears, and slightly more of these classes are recruited than the overall pattern ⁽²⁰⁾. In classes III and IV the reverse is the case: 'over-recruitment' becomes 'under-recruitment' at about the same time. The balance of numbers between this sector and the other three helps to summarise the distinctive nature of New Services: compared with all others, this most important grouping (in the sense that it does contain so many of the non-manual opportunities) does not emerge as a markedly high employer of the highly-skilled (i.e. class I and II) until relatively late. This suggests that the general upgrading of skill levels also happens in the other industries, so masking the difference until relatively late, or that the key processes of post-industrialism are features of a comparatively recent past. In other words, the New Services, which most closely approximate to Bell's quarternary and quinary sectors, blossom in the 1950's, while Moore et al's managerial and technical specialist economy operates from a much earlier point (and continues to operate).

A second result of the higher numbers in this sector is that the profiles are less volatile, particularly so in the case of the mobility rates.

(20) Of course, if the non-manual sector is larger in the New Services, such small variations in percentage have a greater effect than in one of the 'smaller' industrial groupings.

Fig. 8.17: Upward Mobility in each of 4 non-manual classes new services and all industry (10 year moving average, first job)



However, while the greater numbers reduce volatility, they do not result in mobility that resembles the overall patterns to the same extent that the distribution between classes did in Fig 8.16. The distinctiveness of the mobility profiles in Fig. 8.17 is therefore all the more striking. Only class III is a close fit, with class II falling into line in the 1940's. Class I and IV are consistently lower in their recruitment from the working class than in the other industrial groupings. Indeed, even if classes II and III are

taken as being close to the norm, they are on average just below it, rather than above it. Less than one third of the observations are higher than those for all industries. It is only in the last three or four points plotted, that a new picture emerges with closer similarities between the New Services and the total, and even then class I is still different. The similarity reflects the increasing impact of the sector, rather than radical shifts in the other groupings.

Some concluding observations

In view of the density of the data presented in the preceding pages, it may be useful to re-state some of the main findings of the chapter here. First, it has been demonstrated that when the mobility of a national sample is disaggregated by industry sector - into groupings which have a sociological coherence and identity - the profiles of mobility which result are dissimilar. Not only does each industrial sector have a distinctive occupational mix, but the amounts of mobility into those occupations varies from industry to industry, and from time to time.

Second, it has become evident that there are few simple relationships or principles which apply across industries or time. For example, when occupations or industries expand, they do not manifest a consistent tendency to increased mobility, nor is the reverse true. Again, industries recruiting higher proportions of class I do not necessarily recruit lower proportions of class II - or vice versa. One key to understanding the mobility process as a whole must therefore be to disaggregate and consider the 'local' conditions operating in each sector, rather than operating with aggregated data and using statistical techniques which average out these differences.

This is not to say that there are no broad tendencies, or that using the data in aggregated form is never illuminating. It is possible to see three

such broad tendencies present in each industrial sub-set, even if one has to examine the graphs in some detail to find them. There are four phases in the time-series: slow growth of non-manual employment and mobility in the 1930's (despite the Depression); a war effect of accelerated and subsequently decelerated growth over the 1940's, presumably affecting younger men only; a 1950's period in which new patterns emerge; and a late period in the 1960's, generally less clear perhaps than the previous decade, but marked more by relative changes in mobility than in relative occupational mix. All four of the sectors identified in the last section show these time effects. Next, the occupational profiles also demonstrate common tendencies: class IV, for example, declines as a proportion of the non-manual sector in all industries, while class I increases. Except for Basic Services, class II also increases (in Basic Services it is marginally down) whereas class III tends to decline (in Basic Services it is markedly up). The evidence of exceptions helps to highlight distinctive processes (21)

The third broad tendency is for mobility, after considerable fluctuations, to culminate in a lack of growth, even when the less precise and truncated 10 year moving average is used. This is not only apparent in mobility associated with classes III and IV, but also holds good for the other two classes with the exception of class I in Staple industries (on a very small number of cases) and class II in Light Industry.

Such broad patterns pose a problem for how the process of occupational mobility is to be conceptualised. On the one hand, we can regard the process as a whole, demonstrating features which arise from universal causes even if there are occasional untidy exceptions to the rule. The universal causes in this case would be manifested in each industry: the sectors would merely be

(21) As indicated in the body of the chapter the construction industry seems to be very influential in the old service's deviant figures with its high proportion of self-employed artisans.

convenient sites in which to search for the common elements. On the other hand, we can treat the totality as only the aggregate of several different parts. Here the 'rate of mobility' is nothing more than the outcome of a particular combination of separate components.

This is not an idle intellectualisation of the analysis, because a predisposition to one or other leads to the development of different kinds of hypotheses. For example, if one takes the 'third broad tendency' of mobility to decline in the 1960's, a holistic view might indicate that some general social change in the recruitment rules external to the industries had made society less open. Such an explanation might be a modified credentialist one, in which qualifications had become universally more important but were increasingly the preserve of the middle classes. However, if one adopts a disaggregational approach, one might be more inclined to seek an explanation in terms of the occupations which make up each industrial profile. Thus the expansion of non-manual employment in each sector could consist of a growth only of those occupations in which the sons of the middle classes have always done well, and a non-expansion of those other occupations which provide a better mobility route. On balance, the present author prefers to retain both of these approaches, but as the next chapter will show, even if the aggregate is only the result of its constituent parts, it can still be a useful level of analysis in its own right, not least for purely pragmatic reasons of sample size.

Before leaving this problem, it is interesting to examine the example just given of a disaggregationalist argument ⁽²²⁾. If one wishes to

(22) The reader may recall Glass giving just such an explanation of why his sample showed no expansion of non-manual jobs: the overall expansion as indicated in the Census would have had to be female jobs, not male (see above Chapter 6).

attribute the decline in total mobility to a decline in some element of the total, then the data should show some tendency for the change to be concentrated in one sector rather than another. It is intuitively less plausible to propose that the expansion of the non-manual sector, consisting of only those jobs which advantage the sons of the middle classes, should operate in each of the four classes and in each of the four industries. The evidence is not conclusive: as we have observed, there is a tendency across all occupations and sectors for a decline in mobility, but there is also the rise of the 'New Services' to consider. As we know (because of the disaggregationalist style of the chapter) this sector has always been a large one in terms of its non-manual composition, and one which has grown to comprise more than half of all the non-manual jobs reported in the sample, and almost half of all mobility. This would not be immediately apparent from its total employment: at the start of the time-series, its share of total employment, i.e. manual and non-manual was less than 16%, and even at its peak barely reached 30%. Its numerical dominance in the non-manual sector therefore represents both a focussing of the universal or total change onto one key part, and also the advantage of seeing how the several parts react differently to economic and technological constraints.

In this connection, it is interesting to observe how the occupational changes, said to be characteristic of modern society, are neither evenly spread across all industries, nor concentrated in the most advanced sector. The increases in the proportions of highly skilled male jobs are uneven and, given, the somewhat simplistic views of some of the writers discussed in Chapter 3, paradoxical. One sees Staple industry increase its class II jobs but not those in class I, while Light Industry at first follows the same practice and then reverses it. Meanwhile Basic Services are shedding class II and Basic Services

are adding both classes. Clearly, the relationship between requirement for high skill levels and the modern economy must be re-conceptualised to take account of the industrial mix. It may be true that there is a tendency for skills up-grading, and another for a shift towards tertiary industry, and the two tendencies may even be mutually reinforcing and so the most important features. But there are other interactions also at work at the same time, and if one wishes to account for the changes in any one society, it is necessary to 'unpack' the industrial and occupational elements and discover what weights should be attached to each of them. Not least in such an exercise it will be apparent that upward mobility does not automatically increase with modernization as, say, Moore has suggested.

This having been said, the present chapter has not primarily been concerned with exact statement of such relative weights. In its central section, service industry was identified as the major influence, and in the last section, it was implicit that the New Services were the key part of the tertiary sector in this process. Because we have been interested in the trends (which proved to be somewhat complex) and in investigating how each sector is distinctive, the account has been less concerned with precise statements of the various contributions to total mobility. In other words, while the observations represented in Fig 8.1 have been used as a general frame of reference, there has been a deliberate policy of not staying too close to that original formulation in order to keep open several avenues of exploration.

It would be confusing to present comparisons for the whole of the time series, so instead two selected points have been taken to contrast the early and the late phases of the trends: 1930-39, and 1960-69. Table 8.1 gives the share of mobility attributable to each of the four industrial sectors.

Table 8.1 Sectoral Share of Upward Mobility, 1930-39 and 1960-69

		Old Staples	Light Industry	Basic Services	New Services	
1930-39	Mobility	13.8	15.0	43.8	27.5	n= 80
	Size	24.0	18.5	41.9	15.6	n=725
1960-69	Mobility	8.4	16.0	27.7	47.7	n=119
	Size	14.8	20.5	38.4	27.5	n=701

The largest shifts in contribution have been between Basic and New Services, with a reversal of their positions. Light Industry is virtually unchanged, both in terms of mobility and number of jobs. But whereas Basic Services were initially contributing a share of mobility consonant with their size, they are now not much smaller but with a large drop in mobility, while New Services have nearly doubled both employment and mobility. Old Staples have dropped sharply on both counts.

How have these results arisen? The dynamics within each sector are presented in Table 8.2, which can be regarded as giving a concrete example of Fig 8.1. Each sector is shown with its actual ('observed') numbers of non-manual or mobile men compared with a series of expected values derived from projecting the earlier pattern onto a base figure for the later period. The 'observed' numbers have in fact been standardised to the 1930s level by weighting up each observation by $\frac{725}{701}$ (i.e. 1.034) and rounding to the nearest whole number. Where expected values differ from actual observations, we know that the relationship present in the earlier period no longer holds. If one expected value is close, but a second is not, this shows which of the Fig. 8.1 factors has changed most.

Table 8.2: Intra-Sectoral Changes, 1930-39 and 1960-69

		Old Staples	Light Industry	Basic Services	New Services
No. Non-Manual	Obs	33	35	73	157
	Exp*	11	23	54	106
No. of Upmobiles	Obs	10	20	34	59
	Exp**	20	21	42	58

* $\frac{\text{Non-Manual 1930s} \times \text{total 1960s}}{\text{total 1930s}}$

** $\frac{\text{Upmobiles 1930s} \times \text{total non-manual 1960s}}{\text{total non-manuals 1930s}}$

Perhaps the most straight forward pattern is to be found in the Light Industry column. Here, there are more non-manual jobs for the size of the sector in the 1960's than would be expected on the basis of the 1930's (35 compared with 23). But once we know the actual number of non-manuals, we can accurately predict the number of upwardly mobile men (20 observed against a prediction of 21). We can therefore say, in terms of Fig 8.1, that Light Industry has expanded its base (Table 8.1, 18.5% to 20.5%), has more of its jobs now non-manual (Table 8.2, 23 to 35) but has retained basically the same pattern of recruitment to those modified jobs. Precisely the same logic applies to the New Services: the internal recruitment rate is unchanged, but the scale of process has been increased so that more individuals experience mobility, and the overall mobility rate is increased. Thus a substantial part of each of the two intakes can be thought of as part of a changing mobility experience governed more by scale changes than by association changes (Goldthorpe 1980).

The picture for the other two sectors - the two industrial groupings which by contrast are in relative and absolute decline - is that the observed levels of non-manual employment are also higher than expected.

on the basis of the 1930's rates, but the mobility rates are lower. This suggests that there is an increase in the non-manual sectors, but that the recruitment rules change, making it less likely that upward mobility will take place. The analysis in the previous section suggested that in Old Staples, much of the non-manual growth was in class II, and in the Basic Services it was class III. In each class, the mobility associated with these changes tended to be at, or below, the overall trends, i.e. the added non-manual jobs were precisely in those classes where less mobility was taking place.

This leads to the other observation that can be made concerning Tables 8.1 and 8.2. In Light Industry the proportion of non-manual jobs going to the sons of manual workers is about 57% at both points, and its share of all mobility and non-manual jobs does not change much. But in the New Services, with a mobility rate of about 37%, the share of all non-manual jobs rises from 15.6% to 27.5%. In contrast, the Old Staples and Basic Services start with higher internal mobility rates, 61% and 57.4% (barely higher in this latter case it must be said) and lose their initially higher share of non-manual jobs while their mobility rates drop. Thus in the earlier part, they are a bigger source of non-manual jobs, and recruit more from the working class, job for job, and by the later period are a smaller force and one which no longer recruits more from the working class than do the new services and light industry. This see-saw effect combines with the New Services' numerical domination to depress mobility rates in the latter stages.

The reader should be cautious in taking these statements as an adequate summary of a very complex series of changes running over some forty years. In the intervening gap, several other trends have manifested themselves, but there are limits to the quantity of information that can be assimilated. At this stage one other general point will suffice. The new patterns that emerge in the post-war period are broadly in line with the thesis of post-industrial society, but it is only in the 1960's that the basic industrial

and occupational changes reach anything approaching a quantum jump. It would seem that it is not until this point that the twin processes of industrial and occupational transition combine to change the basic character of society. It is important to recognise that there are at least two processes taking place and in the analysis to come to allow for this. Although the trend analysis has shown that industrial mix is an important explanatory factor, we shall also need to look at occupational and the more familiar class features in the order to round out our account of contemporary mobility.

CHAPTER NINE: Education and Mobility

Most writing on the relationship between education and mobility has accorded primacy to the former in a double sense. On the one hand, education comes chronologically before occupation and is seen as a pre-condition for mobility. On the other hand, if qualifications are seen as the ticket that allows entry to desirable jobs, and education is placed at the heart of the process of individual achievement (said to be increasingly replacing a system based on ascription), then education becomes the most important variable in the explanation of mobility patterns. Variations on this theme are considerable. Examples can be found in the recent (and earlier) work of Halsey (1980), which regards the operation of the school system to be central; in that of Blau and Duncan (1967) which treats qualifications as one variable in a set which enables the sociologist to model the mobility process by means of path analysis; in the approach of Boudon (1973) and Bourdieu and Passeron (1977) who regard education as a cultural capital that is unequally accessible to different classes; and in Parkin or Giddens' view of credentialism as a closure mechanism employed by the professional/managerial class. These (and other accounts)⁽¹⁾ all share what is an intuitively-attractive starting point, namely that education is increasingly necessary to achieve upward mobility or to maintain social advantage. In the debate about British mobility, this is referred to, as one writer has put it, as

'the familiar hypothesis that 'tightening links' between education and economy reduce the degree of occupational inheritance' (Ridge, 1974, 27)

The thesis of the 'tightening bond' can be traced to a T. H. Marshall lecture which was first given in 1949 and published in 1950 ⁽²⁾.

(1) See for example Turner (1960), Tyler (1977) or Reid (1978)

(2) See T.H. Marshall (1965) for an account of this.

As an argument, it can be stated in a range of various 'strong' or 'weak' forms. The stronger version takes access to desirable occupations as being normally only possible for those with qualifications, or in other words, education determines mobility outcomes (although of course family background may in turn determine access to education). Weaker versions see education as merely a further dimension of class inequality, or regard the process as less well advanced. As Raffe (1981) has recently observed, much of the debate has singularly failed to specify terms or to state exactly what the bond consists of in empirical terms.

These approaches to education accord it a primacy which the present author regards as misplaced. This is not to say that class inequalities in education are not a proper topic for investigation, nor that the relationship between education and mobility is of no interest. On the contrary, they are of great importance, but the view of mobility which has been propounded here is one which starts from the occupational end of the chain of connection. As we saw in the previous chapter, the industrial composition of a society must be regarded as a central factor in any explanation of mobility. Certainly the stronger versions of credentialism, which see mobility as a product of the educational process, are not compatible with this: instead the prior question is what are the recruitment requirements of a changing structure of jobs? It may be that these involve different levels of qualification, but the supply of qualified manpower - at any given level - will be less important than the demand created by the economy for jobs to be done. Indeed, it follows that we might expect a mis-match of qualifications and occupations, just as well as a neat credentialist fit.

We can develop this point by two kinds of analysis. The first will deal with the incumbents of class I - or upper middle class - positions, and follow fairly conventional lines by examining the educational experience of men who move into, or out of, or remain in, that class. Class I is selected

for this analysis, rather than the whole sample, for a combination of pragmatic and theoretical reasons. Pragmatically, it affords an abbreviated indication of the basic argument, without covering the whole of the sample at length, in a way which would distort the shape of the present study. It also avoids overlap with research currently being carried out by colleagues in this area. Theoretically, concentrating on class I is a logical outcome of both this study's approach, and that of the tightening bond thesis itself. The upper middle class occupy the most desirable jobs, which require the greatest degrees of expertise in their execution. As argued in Chapter 7, if any stratum can be said to typify modern society, it is this group: their position depends on their advanced technical knowledge. It would be expected, therefore, that credentialism should be most manifest among the members of class I.

The second line of analysis develops out of the occupational perspective already presented. In the previous chapter it was suggested that mobility needs to be disaggregated into its industrial types. At the very least, then, one needs to investigate whether the tightening bond thesis applies equally to all industrial sectors. This relegates education to a secondary place in the causal hierarchy, and leaves the credentialist thesis open to empirical exploration. If we encounter inter-industry differences, then this will be due to some feature of industrial organisation which modifies the extent to which the bond may be seen as tightening. Whereas the analysis of the upper middle class concentrates on the respondent's most recent employment, this second section will be concerned with early careers.

Quite deliberately there will be virtually no discussion of other sources of Scottish data on education mobility. A few such sources do exist: the follow-ups to the 1947 Scottish Mental Survey (MacPherson, 1958; Maxwell, 1969), and the work emanating from the Centre for Educational Sociology (see Gray et al, 1982, in particular) are cases in point.

However their main function in this account would be as a source of collaborative (or otherwise) information, and as such any comparison would be dependent on definitions, time periods and samples. Sadly, the exercise of establishing comparability would be too great to justify its inclusion: to give one or two illustrations, the Scottish Mental Survey uses a different and changing definition of father's job, together with a class coding derived from the 1948 British Maternity Study, while most of the CES data are drawn from the 1970s, i.e. after the education of the SMS sample. The exercise is not impossible, but some of the difficulties can be ascertained by a careful reading of Kendrick et al's very interesting discussion of fee-paying secondary education and recent trends (1982a).

The 'LSE Approach' to Education and Mobility

Before presenting the findings on education and mobility, it is necessary to amplify the introductory remarks about the way British sociologists have treated the problem. Among the fairly extensive contributions to this aspect of the sociology of education ⁽³⁾, the work of Glass, Floud and Halsey, and Little and Westergaard seems particularly relevant because they have all in their various ways addressed the problem of occupational change. Additionally, they have all been concerned with the extent to which educational reform can modify the class structure, a concern which dates from their common experience of the sociology department at LSE in the 1950's and early 1960's when many of the basic ground rules for the study of the sociology of education were laid down.

During this period, writers like Floud and Halsey (1958) were looking to educational reforms like the 1944 Education Act to change society by providing a better opportunity for the bright working class child to succeed

(3) A more extensive review of the early literature can be found in Ulas, (1983).

in school, and so take his rightful place among the ranks of the middle classes. After all, that major re-organisation of English secondary education in 1944, to cater for three levels of ability, had formally removed discrimination and opened up free post-primary education for all. The chances of obtaining qualifications were clearly less class-dependent than before the War, and it was not unreasonable to speculate as Glass did in 1954, that

'given the diminishing importance of economic and social backgrounds as a determinant of the type of secondary education a child receives, social mobility will increase, and probably increase greatly. (Glass, 1954, 24).

It would not be unfair to describe this approach as 'Fabian' in its basic concerns with applying sociological analysis to social problems, with studying the results of social reforms and with advocating the equalisation of opportunities for the working class (4).

The importance which Glass attached to education as the enabling factor in social mobility is explained by a second strand in British sociology of that time. This was a concern with the occupational character of industrial society, and in particular the increasing requirement for high levels of skill and therefore for education. Advanced technologies, on which an industrial (or post-industrial) economy depends, require the application of high levels of complex knowledge. That knowledge can only be acquired and developed through long years of education and training, and mastered only by those with the intellectual capacity to handle it. Equally, the expansion and internal differentiation of large scale organisations requires new kinds of specialist functionaries and managers.

(4) As Kreckel has observed, social mobility research in Britain has been located in a social democratic tradition of gradualist reform. The early equalitarianism of Glass and his colleagues was the equalitarianism of opportunity, not of condition. In showing that there were inequities in the chances of getting good jobs, or of getting an education commensurate with one's intellectual aptitudes, they were arguing for equal opportunity of social success for children of all class backgrounds, provided that they had the same levels of ability. But they were not interested in redistributing social rewards - such as income, secure working conditions, and status - from the able to the less able. They were not interested in making the condition of being a manual worker more like that of a non-manual worker.

To quote Little and Westergaard in 1964,

'As professionalisation, bureaucratisation and automation of work proceed, so access to occupations of the middle and higher levels increasingly demands formal educational qualifications.' (1964, 302).

Very similar expressions are to be found at several points in the writings of Floud and Halsey (1958; 169-70; 1961; 1-2) and other contemporaries.

What is characteristic in their work is the stress on the increase in educational and skill levels, and the need for formal entry qualifications for jobs. That is to say, they are concentrating on the increased need for formal educational credentials, rather than on the changing demand created by the evolving occupational structure.

It may seem inconsistent to claim that the 'LSE school' was very much concerned with the occupational requirements of industrial society, and yet to claim that Glass et al discount them. The explanation lies in the way in which this crucial process was interpreted. The LSE emphasis was on the change in job content, in the need for new levels of education and training. But there is an alternative emphasis, which was more popular at that time among American sociologists, and this is the creation of completely new occupations and the expansion in numbers of existing non-manual employment opportunities: it is this latter feature which occupational transition encapsulates. For modernisation writers like W.E. Moore or Bendix, or the advocates of the Convergence Thesis, a key element of industrialisation is the increase in the numbers and proportions of white-collar jobs, which change the 'shape' of the occupational structure from a pyramid to a diamond.

Had the 'American' approach been adopted by the English sociologists, they would have seen that just as the level and availability of education could vary, so too could the level and availability of middle-class jobs. This in turn means that social mobility can change even if educational levels and distribution remain constant. But influenced as they were by the Glass mobility study, subsequent writers in England operated with the mistaken assumption of a stable occupational structure.

Little and Westergaard's minor classic (1964) was both a turning point, and yet also a typical product of this LSE credentialist view of social mobility. It is a turning point because it demonstrated that the 1944 Education Act had only achieved very limited success in reducing class differentials in educational attainment. Although more children were obtaining qualifications, and there had been some improvement in educational achievement by working class children over the comparable pre-war generation, the barriers had changed rather than been removed. This article was the death-knell of the early Fabian optimism.

But nevertheless, it was still typical of the LSE tradition in its assumptions that credentials were replacing job experience as the basis for career selection and development, and also that social mobility for the unqualified children of the working classes was therefore becoming increasingly limited. In fact, neither of these two assumptions was supported by any empirical evidence in the paper. They were presented as established sociological facts about industrial society which required almost no discussion. Indeed, Little and Westergaard went on to propose that the rise in the proportion of educated middle class children would choke off the chances of working class children succeeding in later life: there was a straightforward counter-balance to the rise of social mobility through education by a decrease in social mobility through late-career promotion. This conclusion was predicated on the statement that rates of social mobility were not only low, but practically stable.

At that time (and up to the present day, as Chapter 6 above indicates) the dominant conception of social mobility was that Britain was essentially an immobile society. The results of the 1949 LSE survey showed basically that middle class sons grew up to follow their middle class fathers, while the sons of the working class grew up to be manual workers like their fathers. The chances of a labourer's son becoming a factory manager were virtually nil: any movements up or down the occupational scale between the two generations were small ones. For Glass and his co-authors, education was a key factor in

determining the distribution of a relatively fixed supply of middle class jobs: if all children had equal access to schooling, then these jobs would go to the most able; to the most capable of doing them, rather than to those coming from a privileged family background but who were themselves comparatively less able. More working class children would be upwardly mobile, so displacing the less able middle-class children who would be downwardly mobile into manual occupations.

Little and Westergaard drew on Glass's Social Mobility in Britain to argue that there had been no increase in social mobility because the younger cohorts in that study are no more mobile than the older. Therefore the new educated class would displace the older class of persons whose careers had been built on service, experience and proven performance at work. This conclusion was based on two false premises. The first of these was that mobility rates are low and stable. The critique in Chapter 6 (above), and the evidence presented in Chapters 7 and 8, show that mobility rates are not as low nor as stable as Glass's results were taken to indicate. There is no need to restate the case here, although it may be worthwhile to observe that mobility for the respondent's most recent job also changes with time ⁽⁵⁾. The rejection of this basic premise of Little and Westergaard alone destroys the ground for asserting that increased education blocks the working classes' alternative routes of access to good jobs, because as we have seen, the supply of 'good jobs' has been increasing and this has enabled there to be greater upward mobility. Little and Westergaard assumed mobility was a zero-sum game and thus that new winners would mean new losers. However, in an expanding universe of middle class jobs, there might be more and more winners without cost to the original winners.

(5) In other words, the trend data in the previous Chapter refer to first jobs, and jobs 10 years after starting work. As an indication of the pattern for the respondents' latest jobs, the upward mobility rates over seven classes for the four 10 year birth cohorts from 1909 were 35.6%, 42.3%, 49.0% and 44.8%. Downward mobility was 37.9%, 28.3%, 26.0%, and 24.4% respectively. This point is developed in the next chapter.

The second premise in Little and Westergaard's work was that social mobility is dependent on educational qualifications. This is an eminently more plausible premise. After all, the evidence of professionalisation, the growth of new occupational specialisms requiring long and particular training, and the increased technicality of knowledge in established fields, all point to the need for access to good jobs being via the educational route. And as far as these specific social changes are concerned, the importance of education is beyond reasonable doubt. However, these changes do not apply to all jobs, or necessarily to a majority of jobs, despite the impression that most academics (who were raised and are still working within the educational system) may have. This point can be demonstrated by looking at the education of the Upper Middle Class, the class which par excellence is the creature of modern society.

The Education of the Upper Middle (or 'Lieutenant') Class

The first stage of the analysis is to look at those people who were born into upper middle class families, to see how they were educated, what qualifications they achieved, and how these relate to their subsequent mobility. The second stage is a more general one, a consideration of the educational experience of those not born in the upper middle class (UMC) but who have been upwardly mobile into that class during their own life-times. In each case, it is possible to regard education as type of schooling received, and as level of qualifications obtained. Both are of interest, although obviously the system of education - selective, comprehensive, private - determines access to qualifications. In Table 9.1, the high proportion of Scots attending comprehensive schools is of note: 30.3% in column (a). (Table 9.1 follows on the next page).

Table 9.1: Type of Secondary Schooling

School type*	(a) All Males %	(b) Men born in 'UMC'	(c) Ratio (b) to (a)
Private	4.6	29.7	6.5
Selective (Grammar and Direct Grant in England)	19.2	32.7	1.7
Comprehensive	30.3	20.8	0.7
Junior Secondary (Secondary Modern in England)	37.1	11.1	0.3
Other Scottish	8.0	1.8	0.2
Other English or n.e.c.	0.9	4.0	4.4
TOTALS	100 n = 4289	100 n = 226	

* 'Selective' includes those attending 'omnibus' schools who had to pass an examination to enter them, while the remaining pupils are allocated to the 'comprehensive' category. Junior Secondary includes the pre-war equivalents. Further details of the Scottish education system can be found in Ford, Payne and Robertson (1975) and Ulas, *op cit*. The author is grateful to Graeme Ford for his research into the history of Scottish schools and for the preparation of some of the data presented in this section.

The Scottish system anticipated the English by several decades, but without any apparent reduction to the class differentials in output of qualified manpower. Men with UMC origins were more likely to attend private secondary education (29.7% in column (b)) than the sample as a whole (4.6% in column (a)), or , to put it another way, a son of the UMC was six and a half times more likely to receive a private education than was any child

taken at random within the population (column (c)). This still leaves 70% of UMC children who take their chances in the state system; however, an examination of the outcome of this shows that they are not in fact risking much. 32% of them were educated within fully selective state schools, the Scottish equivalent of Grammar Schools, and this was nearly twice as many as the average for the entire sample.

Of course it follows from this that the UMC child was generally able to avoid the junior secondary schools, and in fact only 11% of them attended these schools, which catered for over 37% of the population at large. It is however of some significance that as many as 11% of these privileged children did in fact end up in the lowest educational category; the consequences of this for their subsequent careers is taken up below.

The existing 'lieutenant class' is, then, notably successful in mobilising its status to secure direct educational privilege for its progeny. 62% of them had either private or selective education as against 34% for Class II, the next highest occupational group.

How does this pattern of schooling relate to social mobility? Table 9.2 shows that those men born in the UMC and retaining their class position - column (a) - do in fact show a higher degree of educational privilege than any other group. In all, 44% of them received private education, almost ten times more than the average for the sample, while a further 34% went to state selective schools.

(Table 9.2 follows on the next page).

Table 9.2: Type of Secondary Schooling and Social Mobility of Men Born into UMC Families

School type	(a) men retaining their UMC position %	(b) ratio of (a) to sample proportions	(c) men downwardly mobile from UMC %	(d) ratio of (c) to sample
Private	44.2	9.6	19.1	4.2
Selective	33.7	1.8	32.1	1.7
Comprehensive	13.7	0.5	26.0	0.9
Junior Secondary	4.2	0.1	16.0	0.4
Other Scottish	-	-	3.1	0.4
Other English or n.e.c.	4.2	4.7	3.8	4.2
TOTALS	100 n = 95	-	100 n = 131	-

A further point, which does not emerge from the figures presented, is the fact that one group within the lieutenant class, the self-employed higher professionals, shows the highest level use of private education of any group in the study. No fewer than 79% of those self-recruited self-employed professionals went to private schools.

It must be remembered however that the majority of those with UMC origins do not themselves maintain their UMC status, in fact three in every five move out of the class. Focusing then on these UMC 'dropouts' (column (c)) it seems that they are not quite as educationally privileged as the UMC self-recruiters, but they remain a very privileged group indeed as compared with the population at large. They are four times more likely to have had private education and almost twice as likely to have gone to selective state schools. It would appear then that having the right background and the right schooling is no automatic guarantee of the maintenance of one's parental status, even if the

combination is a considerable advantage.

The alternative index of education is qualification levels, rather than type of school attended. This is shown in Table 9.3:

Table 9.3: Destination of those with UMC origins by Educational Success

	Self-recruiters	Downward mobile to middle class	Downward mobile to working class	TOTALS
% high qualifications i.e. either high school success (Highers or better), and/or high FE success (HNC or better)	58.3	37.4	4.3	100 n = 139
% low qualifications (i.e. neither high school success nor high F E success)	20.4	47.6	32.0	100 n = 103

In this table, secondary and post-secondary education have been combined for simplicity. In fact, although the education system is organised in separate tiers, possession or non-possession of qualifications can be regarded as a single social outcome. The details of the process - for instance whether secondary or post-secondary sub-systems are the major blocks to access - remain of interest, but at a lower level. The advantage of the unified approach is that it prevents a narrow and incomplete view of education which omits further and higher education from the total picture, as did most of the early writing ⁽⁶⁾. (See Girod et al 1977).

(6) This does raise technical difficulties in establishing equivalences between different systems of qualifications. Obviously an A - level ranks above an O - level, but does the latter compare with an ONC or 3rd level City and Guilds? The present categories are very broad, but examination of other cut-off points shows the same basic pattern in the relationship between mobility and educational qualifications.

In Table 9.3, 96% of those persons of UMC background who attain educational success (first row) in fact maintain some level of middle class identity with no fewer than 58% being recruited back into the UMC class itself. While lack of educational success does increase the likelihood of downward mobility for the sons of this class, the second row of Table 9.3 shows that 20% of these born in this class and having neither 'high' school success nor compensatory 'high' further education were nevertheless able to secure jobs in the UMC; while a further 48% were able to maintain some kind of middle class status. As a means of securing the transmission of intergenerational privilege, educational success appears to form a sufficient but not a necessary condition.

Educating the Incomers

The analysis so far has dealt with flows out from UMC origins. The next stage is to look at inflows, that is, from which social origins do the present members of the UMC class come, and what levels of education have they achieved? To what extent is the education system the "gate keeper" regulating access to this privileged social stratum? Table 9.4 is the equivalent to the earlier Table 9.1

Table 9.4: Type of Secondary Schooling: Inflows

School type	(a) All Males in Sample %	(b) Men upwardly mobile into UMC %	(c) Ratio (b) to (a)
Private	4.6	12.0	2.6
Selective	19.2	38.4	2.0
Comprehensive	30.3	27.2	0.9
Junior Secondary	37.1	18.2	0.5
Other Scottish	8.0	2.2	0.3
Other English or n.e.c.	0.9	2.0	2.2
TOTALS	100 n = 4289	100 n = 357	

The incomers to the UMC (column (b)) have a pattern of education which is somewhat different from that for individuals with UMC origins. The use of private schools is far less, although still two and a half times the average, while the incidence of state selective education is somewhat higher. Taken together they amount to 50%, which is double the average figure but far less than we saw for the UMC self-recruiters (Table 9.1). Most significantly 18% of the incomers have only junior secondary education, while 27% went to comprehensive schools, or in other words, about half of those who were upwardly mobile into the UMC had not attended a privileged type of school.

The qualifications of the present members of the lieutenant class are shown in Table 9.5, discriminating between those from different class backgrounds.

Table 9.5: Inflow to UMC by Level of Educational Qualification*

Class of Origin	Qualification Level of Incomers		Totals n
	Low	High	
II	30.1	69.9	93
III	42.4	57.6	66
IV	57.1	42.9	35
V	65.8	34.2	79
VI	65.9	34.1	44
VII	56.2	43.8	48
Totals	50.4	49.6	365

* High/Low as in Table 9.3

The first, and perhaps rather surprising fact to observe is the large number of members of the UMC with modest or non-existent educational attainment. In Table 9.5, half of the UMC fall into this 'low' success category. In no sense then, can education be seen as necessary for entry to the UMC. The data presented earlier on outflows from the UMC might have tempted one to conclude that education and advantageous class background could be viewed as alternative resources, either of which being generally sufficient to secure transmission of privilege. As a corollary of this, one might expect that the further a person's origins was from the UMC, the greater would be his dependence on education as a means of securing upward social mobility. The reverse in fact holds true. The long-distance upwardly mobile are considerably less well-qualified on average than those from classes proximate to the UMC, and there appears to be a fairly neat inverse relationship between class of origin and education for those upwardly mobile into the top class. On the other hand, what this table does not reveal is that those sons of working class parents who do obtain high educational qualification are almost always upwardly mobile: nine in every ten of such children subsequently entered the middle class.

To summarise this brief review of education and the UMC, high levels of qualifications generally ensure upward mobility or safeguard against downward mobility. But there is still a very considerable amount of upward mobility and status maintenance without formal qualifications, particularly in the managerial and senior supervisory categories.

There are simpler ways of challenging Little and Westergaard's thesis than the method which has been chosen here, as witness Goldthorpe (1977). However, it is important to explore the shortcomings of their argument in the way chosen, because it highlights more clearly the need for a basic re-conceptualisation than would a simple disproof of the thesis by the presentation of more recent data. What has been at the heart of the exercise is an attempt

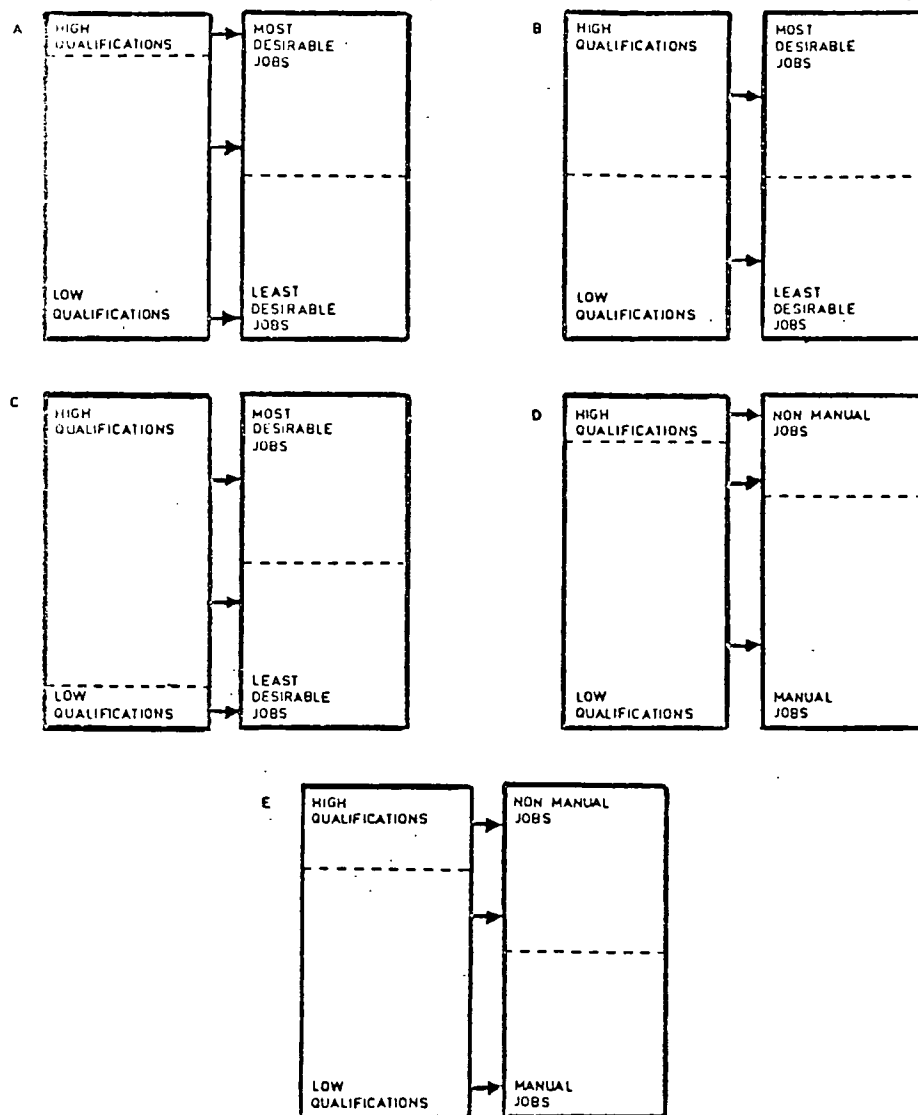
to indicate not that education and mobility are uneasy bed-fellows - which after all Jencks and others have already argued - but why they make so poor a pair.

Education and Occupations

One dimension of this should already be clear; the rapid expansion of occupational opportunity has created a demand for competent manpower, not just qualified manpower. To put it another way, the occupational demand has expanded faster than the educational supply. In the SMS sample, 64% of men had no kind of school exam pass whatsoever. A further 18% had only qualifications of a level lower than O-grades - in English terms, lower than CSE. In post-school education, nearly half had no further training beyond 'Watching Nelly': of the remaining half, 4 in 5 had served basic apprenticeships of whom about half had additionally obtained City and Guilds-type qualifications below the standard of ONC. Nor is the pattern of low standards of qualifications explained just by the fact that the sample includes men of all ages: if one compares older men with those educated post-war, only about 11% of the former had better than O-grade and equivalent, compared with 19% of the younger men.

As a result of this poverty of qualifications, the association between education and occupation is a paradoxical one. Education generally guarantees a good job, but a lack of education (the more common condition) has not acted as a barrier to occupational success. Consider the diagrams below. In each pair of blocks, one shows education and one occupations: each block can be regarded as a continuum from high to low, or 'most desirable' to 'least desirable'. Alternatively, we can regard each block as dichotomised at the dotted line for ease of explanation. The arrows show the main flows of people with certain levels of qualification into occupations.

Fig. 9.1: A Diagrammatic Representation of Education and Occupations



In (A) the proportion with high qualifications is much smaller than the proportion of desirable jobs: the short-fall is made up by recruiting others with much lower levels of qualification. In (B) the supply and demand of education and occupations is in balance. In (C) the educational supply exceeds the capacity of the desirable job sector to absorb it. This latter is something like the current American picture, with a very large proportion of the population

receiving education, and graduates taking jobs which would be considered somewhat menial for graduates in Britain.

The second thing which these three pairs show is that the link between education and occupation can be very strong, but the association as measured by a correlation coefficient could appear to be low. In (A) the value of a correlation would be reduced by the recruitment from the low-qualified: in (C) the over-qualified would be the effective factor. Only in (B), or something approaching it, would the correlational measure adequately reflect the underlying link which Floud, Halsey et al, recognised. This raises problems for path analysis or any method which relies on correlational techniques for diachronic comparisons.

To put this another way, even when educational provision was low, selection had to be made on some basis. It is perfectly reasonable to suppose that the sorts of people who were selected at an earlier time without qualifications might now be selected with qualifications: this would produce no substantial change in rates of mobility. One might then wish to talk of a tightening dependence of occupational status on education, without implying any increase in mobility.

It is clearly important to make this conceptual distinction between the extent to which education is linked to occupation, by which we mean the extent to which high education guarantees access to a top job; and the extent to which education explains occupation - that is, the strength of the association between these two factors ⁽⁷⁾. Obviously, where there is a relatively low degree of educational provision the 'link' may be high and the 'association' low, as we saw in diagram (A). The same goes for diagram (D) which is meant to represent the relevant proportions in Britain during the earlier part of this century. In contrast, diagram (E)

(7) See p.20 for footnote (7).

shows something like the current situation in Britain today. Here, we know that the supply of good jobs has been growing, so that quite separate speculation might be that the link could remain strong, while the association weakened. In other words, the relative balance of educational supply and occupational demand is crucial in understanding the second half of the class background-education-occupational attainment equation.

However, only the first half of this equation combining class background, educational experience and occupational attainment, has received even moderate attention from the earlier writers. Generally speaking, they implied that the second half of the equation was not problematic, i.e. that the association between formal education and achieved status is a close one. In fact the two links in the chain are analytically separate, and must be so considered in any explanation. Educational reform changed both the rules of access for the working class, and also promoted an increase in the output of qualifications. It must be an open question whether the relationship between educational success and occupational status remains constant during the double change which comprised the shift from an earlier, mainly elitist, system to a more popular and accessible education. Even if one assumes that there has been an improvement in both access and outcome, it does not follow that there will be a proportionate rise in mobility.

-
- (7) This is another way of expressing the earlier point that education may be a sufficient condition for access to good jobs, but not a necessary one. The distinction between the two is particularly relevant for analyses which use correlational measures (most recently Raffe (1981)) where the increase in associational values is implicitly taken as meaning that the sufficient conditional relationship has become a necessary conditional relationship. Raffe does not properly come to terms with this distinction, and therefore confuses the increased supply of qualified manpower with the nature of the intrinsic relationship between qualification and occupation. To put it another way, Raffe is really saying that, at a very general level those with more education tend to be found in more less desirable jobs. This is true, but it is neither a very precise statement nor, very enlightening about why education and jobs are sometimes associated.

In other words, as long as education is restricted to the few who are also privileged in most other respects, the exact role of education in determining achieved status must remain somewhat opaque. It is possible that what appears as a tight link between the possession of education and occupational success is only partially valid and that as the education base expands, this fact will become apparent (8).

Education and the Elite

This raises an interesting point about recruitment to top jobs which can be developed before continuing with the main line of argument about the demand side of the education-occupation relationship. In Chapter 7, it was argued that the upper middle class is different from the 'true' elite. To what extent do they share educational experience, and can the position of the elite be seen as a result of their education? Comparison between the UMC and the elite can be made using the educational evidence in Stanworth and Giddens (1974) or Abrams (1978).

It is almost an article of faith in British sociology that the English Public Schools (not to mention Oxbridge) are the key to the cohesion and solidarity of the ruling class. Some writers make even more extensive claims: for example Rex writes

One thing which is clear is that the maintenance of the old ruling class as a sociological entity depends upon the preservation of a separate form of education where that class's values can be fostered and maintained. Not merely must the actual office-holders within the various institutions be educated and indoctrinated; so also must a wider class who will constitute a kind of reservoir from which new supplies of suitably trained talent can flow in the future, but who serve also to give the existing 'Establishment' officers a sense of legitimacy and support (Rex, 1974, 215)

(8) Alternatively, there may be an interaction between class of origin and education such that education is less efficacious for the 'new' educated classes.

But not only do the Scottish lieutenants not share that educational tradition to the same degree: they do not seem to share any coherent educational tradition. Where, then is the argument for cohesion, solidarity, value-orientation and re-socialisation of new recruits, thought to be so necessary for the operation of the class system?

To put this another way, if the elite and the lieutenant class do not share the same educational experience, this should, extending Rex's logic, produce a lack of cohesion, solidarity, value orientation and re-socialisation, leading to conflict between the two strata. The extent to which each experiences a different schooling can be seen by comparing Tables 9.2 and 9.4 above with Table 9.6 below

Table 9.6: Types of Schooling of Elite Groups in Various Studies *

1951-7-	Labour M.P's Tory M.P's	52.1% G.S. 19.6% P.S. 23.2% G.S. 75.5% P.S.	(Guttsman) p.35
1971	Directors of major firms Directors of City Financial Institutions	27.2% G.S. 64.3% 16.4% G.S. 79.8% P.S.	(Whitley) for list of firms, see Whitley, p.66 p.70
1900-72	Company Chairmen (% for known cases)	13% G.S. (approx) 78.3% P.S.	(Stanworth & Giddens) for type of firm, see p.81 p.84 "the public schools more than held their own over the period" p.89.
1966-7	Higher Civil Service Entrants	44% LEA Schools 54% non LEA "	(Kelsall) p.176
1960-2	Bishops	N/A G.S. 85% P.S.	(Thomson) p.202

*The references are all to Stanworth and Giddens, eds (1974). The reader is cautioned that each study has its own definitions of elites and school types which may not be strictly comparable. Urry and Wakeford (1973) contains further data, but mainly for the 1950's and early 1960's: see however pp 213 - 242 for items such as 83% of the Army elite in 1959 had been public school educated.

Three things are clear from this. While the UMC has about 40% of its members educated at 'Grammar School', the various elites generally have smaller proportions with such education.⁽⁹⁾ Secondly, whereas the UMC has a further 20% of its members with a private education, the elites' figures (Labour M.P.s excepted) run at 54%, 64%, 95%, 79% or 85%; this is the most important difference. Finally, over 40% of the UMC have attended neither type of privileged education: among the economic elite at least, this figure must be around only 5% to 10%.

Kendrick et al have objected to an earlier version of this argument on two grounds. The 'upper middle class' as defined here includes occupational categories which by no stretch of the imagination can be described as 'upper middle class', and by taking the upper 12% of categories on the Hope-Goldthorpe scale, the class has been made too large (1982a, 23). Unfortunately no details are given of the first criticism, but in general the Scottish UMC is very similar to that used as class I by Goldthorpe. It is true that some specific occupations are given an exaggerated eminence, masseurs, managers of football clubs, and coal merchants - but Kendrick et al may not have appreciated that these were included mainly as owners or managers of large operations (see Appendix I below) and make up very little of class I.

The idea of an upper middle class of a fairly large size is not unusual. In addition to the evidence about the size of elites and their neighbouring class already presented, other authors such as Wright (who by coincidence comes up with a figure of 12% for the American managerial UMC (plus 6% for the small employer class) Wright, 1978, 63) and King (in his adaptation of Brown's data showing 12.4% senior managers and professionals, plus 2.6% for employers and proprietors: 1981, 81) have come up with similar estimates. In fact, the size criticism seems to arise from a

(9) It is important to remember that the borderline between 'private' and 'selective' secondary education is less clear in Scotland, because of the status of major schools in Edinburgh during the earlier part of the period. Such schools provided a privileged education as an alternative to the public schools of the south.

strange piece of tautology: Kendrick et al say that by making the UMC 12% when the fee-paying education sector is only 4.5%, the analysis must 'bias the account towards stressing the "openness" of Scottish society' (1982a, 23).

But this is to pre-judge the relationship between education and class status. The size of the UMC was decided before the level of fee-paying was known. Kendrick et al seem to imply that only if two variables are of the same size can a fair comparison be made, or worse, that the UMC are in some way defined by their access to privileged education. But these are empirical questions, and have to be considered in the light of the other evidence about elites and the rest of the middle class, and other forms of privileged education. This evidence clearly suggests a marked difference between the elite and the upper middle class in terms of both education and background, which raises the question of why is there no inter-strata conflict?

The evidence given is compatible with the view that the members of the elite share an educational experience which serves to bind them together. However, if Rex means by a 'wider class' of supporters that the UMC also share in the educational arrangements of the elite, then there would seem to be little support for this position. Certainly the UMC as a whole cannot be included, with only 1 in 5 participating in private schooling. Again, with such different traditions and over 40% of its members with relatively poor education, it seems improbable that the members of the UMC share an ethic which depends on secondary education. It has already been noted that those who must travel furthest to gain access to the UMC, and who are therefore least likely to share background values, are very unlikely to experience the socialising derived from privileged education. Again, only about 30% of the sons of the UMC had private education, and, of these about a third were downwardly mobile, so private education is not such a significant or effective method of conferring occupational advantage to one's offspring as one might believe.

Allowing from some simplification, the composition of any group depends on its ability to self-recruit; the nature of its intake from other groups; and the rate of expansion (or contraction) of the group. Consider the typical view of an elite: it recruits from its own sons; it takes in only a small number of 'outsiders' who are supposed to be from the class most like itself - i.e. a homogeneous intake in the sense of being both similar to the elite and internally consistent as an intake; and the rate of expansion is presumably very low. In consequence, there is no need for major re-socialisation of the intake. But what happens if expansion is more rapid, or if self-recruitment weakens, or if an intake is less homogeneous? Presumably the need for a mechanism to adjust the newcomers to the values of the group is greater, unless social cohesion is to decline.

Now it has already been shown that the UMC as a whole is expanding, has fairly low rates of self-recruitment and has no unified secondary education experience. This can be expanded by treating each of its four constituent occupational categories separately. Only the self-employed professionals are anything like the 'typical elite'. In the absence of any strong growth in the numbers, such a group can dominate successive generations by maintaining high levels of self-recruitment, and filling any short-fall by highly selective recruitment from those other sectors of society which are most like themselves. Because the incomers are already somewhat like the 'host' group, and because the 'hosts' outnumber the new recruits, cultural continuity is assured. And yet the self-employed professionals are the UMC category which have the highest levels of privileged education. The other categories with more rapid growth, and larger, more heterogeneous intakes, have no strong single education character (indeed, there are considerable difference in the expansion rates and type of recruitment between the three categories themselves).

It would seem to follow from this that privileged education is not a significant factor in binding the several constituents of the UMC to the elite, and that the public school should not be regarded as providing a

a necessary socialising force (even for the elite?) It would be an equally adequate explanation of the SMS findings for the UMC to say that the most secure groups, who can hand on their position of advantage, are incidentally also able to purchase the badge of privileged education. As a commodity, the schools 'hidden' (or half-hidden?) curriculum is geared to attract the custom of the paying parent. The outcome may be a heightening of consciousness for its pupils, and the foundation of networks which can be activated later in careers - but the education is dependent on the client (the elite?), not the other way around.

If this speculative proposition is accepted, then it becomes necessary to look elsewhere for the supposed mechanisms of socialisation which operate for both elite and UMC. Socialisation through University (i.e. a later and separate part of the education 'system' (see Watson, 1964), occupation, or even an absence of a mechanism seem likely answers. One plausible explanation to be found in Nichols (1969): selective promotion by employers of individuals who are competent and show a minimal commitment to 'a-political' capitalist values. In other words, a low level belief in adequate levels of efficiency and personal career goals at work, and material comfort in the domestic life, is sufficient to sustain much of modern capitalism, particularly for the lieutenant class. There is no need for schools to teach such values in a positive sense: the values have become part of general currency.

The traditional view, which was laid at Rex's door, that privileged education is a requirement for individual entry, and a pre-requisite for system maintenance, may be mistaken. It may equally well be that the 'elite' are merely confirmed in their line of succession by an education which is appropriate. A shared experience of public school education may help the cohesion of the elite, but that is a more limited argument. It certainly cannot be true that the lieutenant class as a whole is caught up in this education system, and so, by the traditional view, it must be isolated

from the elite. This might help to explain the former's subordinate position and lack of progress to the ranks of the elite, but it suggests an important disjunction in the class structure, and leaves unanswered the question of why the UMC accept their position and are seen (on a commonsense basis) to be as committed in their support of the system as are the elite. (10)

Education and Industrial Sector

In arguing first that mobility to the upper middle class did not seem to be education-dependant, and in contrasting elite experiences with those of their lieutenants, the basic case has been that education has been given an exaggerated place in the sociological schema. This is not to argue, however, that it is totally unimportant, and this final section can be seen as something of an attempt to find a new position for education, one in which it is better integrated with the occupational, or demand side of the process. Earlier in this chapter, Little and Westergaard were quoted as identifying professionalisation, bureaucratisation and automation as causes for increased demand for formal qualifications. But not only are each of these forces separate, the extent of their influence is likely to vary from occupation to occupation, and industrial sector to industrial sector. In other words, the conditions within industrial groupings which produced the mobility trends discussed in the previous chapter may also determine what entry qualifications are necessary for a career in any given industry, or in any given occupational grouping. In particular, the industrial rates of mobility may reflect rules

(10) One other aspect of the data relates to the fact that the study of elite self-recruitment and educational provision have often lacked comparable data on the rest of society. In concentrating on that part of the class structure which might most reasonably be expected to be like the elite, and still finding clear differences, this section has thrown such evidence about the elites into sharp relief.

of recruitment which in practice are largely education rules, so that the overall rate of mobility is the outcome of a complex of changes in several specific education-industry relationships.

To explore this, it is necessary mainly to return to the data on first jobs, so that any effects due to historical periods and intra-generational mobility can be controlled. Rather than using moving averages, either pre-war and post-war groupings, four fixed cohorts approximating to each decade covered by the study will be used. As the previous chapter showed, the latter are a reasonably satisfactory representation of the trends at different period, although that of the 1940's is less good in this respect. Once again the constraints of sample size will dictate the use of fairly broad categories and an indirect approach to problems with variables successively included and excluded from the analysis, in order to maintain viable numbers.⁽¹¹⁾ (See next page for footnote).

A useful starting point is to examine the relationship between mobility and education in each of the industrial sectors discussed in the previous chapter.

Table 9.7. Proportion of Upmobiles : Men intergenerationally mobile from manual origins to non-manual destinations who had 'high qualifications'

<u>Industry</u>	<u>1930's</u>	<u>1940's</u>	<u>1950's</u>	<u>1960's</u>
Old Staples	50.0	45.5	20.8	50.0
Light Manufacturing	41.7	28.6	63.6	42.9
Basic Services	16.7	12.8	26.8	38.7
New Services	34.8	29.7	48.8	40.4
Whole Sample*	13.8	17.0	28.2	31.7

* i.e., those with high qualifications in the cohort (excluding primary industry) whatever their mobility.

The bottom row shows qualification levels rising during the whole period in these four industries (excluding agriculture and fishing) as a whole. However, even in the 1960's, only about 1 in 3 had this level of education. If we use this row as a base, then mobility can be seen to be associated with education, because 13 out of the 16 cell values are higher than the appropriate column base figure. However, the cell values are not particularly high: in only one case out of 16 is the value more than half, so that a strong argument that mobility is dependant on qualifications must be rejected because in fact a majority of the upwardly mobile have low qualifications.

If we can turn to the row patterns, it is interesting to see that there is no clear tendency for mobility to become more associated with qualifications. Even if the 1940's are discounted because that decade encompasses the war and its after-effects, there is little additional evidence of monotonic trends. The best that can be said in the search for trends is that values for 1940's tend to be lower (presumably the war effect of accelerating young men into jobs), while the 1960's values tend to be slightly higher than the 1930's. No trends are common to all four industry groupings, which have radically different profiles, with Basic Services being notably lower than the others across the whole period. This is the only grouping in which the 1960's is clearly higher than earlier years.

If education is not strongly associated with upward occupational mobility is it more clearly related to immobility or downward mobility? Again, there are few obvious patterns in the data:

-
- (11) It is of course true that a fairly demanding level of qualification has been chosen, together with a fairly generous level of mobility destinations - the non-manual segment. However, this is not an unrealistic view of the world: the problem arises from the lack of precision in early debates about 'mobility' and 'education', which results in confused thinking.

Table 9.8: Proportions of mobile groups with 'high qualifications'

Industry	1930-39 n = 841 *			1940-49 n = 859			1950-59 n = 891			1960-69 n = 795		
	a	b	c	a	b	c	a	b	c	a	b	c
Old Staples	22.2	15.8	6.0	40.0	21.7	6.6	46.0	35.7	22.2	56.3	14.3	18.4
Light Industry	40.0	19.0	3.1	50.0	6.1	3.4	60.0	17.2	14.9	71.4	29.2	7.5
Basic Services	44.4	11.9	2.6	50.0	29.1	6.9	50.0	28.8	14.9	47.1	22.4	7.9
New Services	69.0	4.8	3.3	52.0	0.0	10.3	73.1	33.3	8.1	71.9	36.1	17.9

* a = immobile non-manual; b = downwardly mobile; c = immobile manual

If occupational achievement was increasingly dependent on qualification then those who remain in the non-manual sector should be better qualified at each cohort. This holds for manufacturing, but is less true for services. If the same occupation/qualification relationship is true, then those who 'fail' - i.e. are downwardly mobile, or remain 'trapped' in manual occupations - should show the converse; declining levels of qualifications. This does not hold true. In manufacturing and Basic Services, the post war levels for the immobiles are higher than pre-war, as in the 1960 level in New Services. Again, the downwardly mobile cells show surprisingly high values, particularly post-war, although the picture is less clear cut. To uphold the tightening link argument, we would not just expect high, and rising qualification levels for the mobile and the non-manual immobiles, but low and decreasing levels for the downwardly mobile

and manual mobiles. Instead, if there is a single statement which can encompass tables 9.7 and 9.8, it must be that over and above the many fluctuations, there is a tendency for all four mobility categories to increase their qualification levels. In other words, more people have educational qualifications but this provides a poor guide to their occupational or mobility outcomes.

On the other hand, the evidence so far has been presented as percentages of mobility groups, without regard for the relative size of these or the industrial groups. If we express the data in terms of cohort percentages, regarding high occupation/high qualification and low occupation/low qualification cases as predictive 'successes' for the tightening bond thesis, and high/low combinations as failures, then the findings look more favourable. Overall, the hypothesis scores 79.9% 'successes', which on the face of it seems quite good. However, the best possible fit in the data depends on the structure of the categories: for example, in all there are 860 non-manual posts, but only 641 men with high qualifications, so that there must be at least 219 low qualifications men in high occupational statuses. Conversely, even if all the 641 highly qualified cases were allocated to the manual class, and the whole of the non-manual class filled with the lowly qualified there would still be room for 1360 lowly qualified cases in the manual class. Expressed as a percentage of all predictions (i.e. the number of cases in the analysis) this gives a best possible fit or upper limit score of 92.3%, and a worse possible score of 47.5%. As a score somewhere between the two, 75.9% does not look quite so impressive as it would if the upper limit were 100% and lower limit 0%

The same approach can be used to disaggregate these results into trends and industrial components. First, the cohort pattern shows up some interesting period effects.

Table 9.9: Percentage correct predictions of association between qualifications and occupational status on the basis of the tightening link hypothesis.

	1930s	1940s	1950s	1960s
Actual successes (%)	82.6	75.8	72.4	72.3
Upper limit (%)	91.4	89.4	98.6	89.1
Lower limit (%)	63.7	55.4	42.2	25.6
Successes standardized*	68.2	60.0	53.5	73.5

* expressed as % improvement on lower limit (i.e. upper limit = 100% improvement) (11)

- (11) The standardized measure provides a means of comparing observations at various times and locations, controlling for the occupational and educational distributions. Having calculated the theoretical upper and lower limits for a given distribution, as outlined above, the range which the observed value could take is the difference between the upper and lower limits. For example, Table 9.9 shows that in the 1930's, the range was $91.4\% - 63.7\% = 27.7\%$. The observed value can then be expressed as an improvement on the lower limit: in this case 82.6% was 18.9 percentage points 'better' than 63.7%. The 18.9 percentage points can be expressed as a proportion of the 27.7 percentage points of the range (this can be done directly because both are percentages calculated from the same base). If this new proportion is expressed as a percentage, where the range (27.7) = 100%, the standardized measure has new limits of 0% and 100%, and each 1% represents a limit of improvement on the original lower limit. Whereas a value of 100% occurs when the original upper limit or best possible fit is achieved, a value of 0% occurs when the original lower limit is achieved, but in this latter case there would have to be a completely inverse relationship between the two variables, analogous to a correlation coefficient of -1. At 50%, the standardized measure reflects a situation of no association, analogous to perfect mobility, where the cell values are proportional to the marginals. Even at 100%, this does not mean that there are no failures in prediction, only that as many successes as possible with that distribution of occupations and education have been achieved. In a case like the New Services in the 1950s, the combination of a shortage of qualified manpower and a large demand for non-manual occupations resulted in many unqualified men doing non-manual work, with a standardized measure score of 100%.

If the bond were tightening, one would expect each successive cohort to provide more 'successes'. In fact this does not occur in either the basic or standardized figures. In the former, the earliest period shows the tightest link, with the other three showing a lower and relatively stable percentage. The standardized indicator however shows that, given the size of the categories the 1960's had a closer link. What is more marked is the drop in the lower limit across the period, with the sharpest fall in the last cohort. This is produced chiefly by the structural shift in occupations from manual to non-manual: over the first thirty years, this rises from 22.4% to 29.6%, and then jumps to 42.7% in the last decade. High qualifications meanwhile increase from 14% to 30%, over 30 years, and only increase to 31.7% in the final decade. The largest increase in the supply of qualified manpower is between the 1940's (17%) and the 1950's (29.6%), a change which does not seem to be strongly reflected in Table 9.9.

The essential characteristic of this mode of analysis is that it makes full allowance for a known structure of occupation and of education. The structure of occupations is a statement (albeit imperfect) about demand for certain levels of labour (manual and non-manual) while the educational data are a statement about the supply of men qualified ⁽¹²⁾ to carry out such labour. What Table 9.9 tells us is that, allowing for the ways both of these change over four decades, it is only the 1960's (on the standardized measure) that show any sign of the link tightening. In other words, the link is a feature of comparatively recent times, and generated more by the changes in the occupational structure (the relative growth of the non-manual

(12) 'Qualified' in the specific sense of having passed Highers or HND, or better. Obviously, one could draw the definition of qualified lower (e.g. 'O' levels) or even higher, or with a larger data set include graduations of qualification level. The choice of definition here is both pragmatic, because a dichotomy is a more manageable level of analysis, and logical, because if there is a tightening link it should show up for this level of qualification: after all, if the highest school leaving qualification were to be but poorly related to occupational destination, that is indeed a strong piece of evidence against the link thesis.

sector) than by changes in the supply of qualified manpower (the increase in the numbers of men with 'high qualifications').

While this may stand as an adequate summary, it is worth examining the differences between our four industrial groupings. Table 9.10 expresses the data from Tables 9.7 and 9.8 in this latter mode of analysis.

Table 9.10: Inter-Industry Variations in Prediction Rate (%) of the Tightening Link Thesis

	<u>Old Staples</u>	<u>Light Manufacturing</u>	<u>Old Services</u>	<u>New Services</u>
Actual Successes	77.7	82.7	76.2	66.5
Upper Limit	98.8	97.2	94.1	73.3
Lower Limit	62.6	64.7	61.1	13.4
Standardized Success	41.7	55.4	45.8	88.6

Although each sector has a different character, it is the New Services sector which is most clearly distinctive, with a poorer absolute successes score, but a higher standardized score. This is a reflection of its particular occupational and educational profile. Its non-manual sector is large: at 70% this is twice the size of each of the other groupings. So too is its proportion of highly qualified manpower at 43%. In calculating the upper limit for the link, the result is a low score, because of the greater relative shortage of qualified men to fill the large non-manual category. In calculating the lower limit, many more low-qualified men are 'displaced' from the manual sector when the larger group of highly qualified men are allocated to it, so that the former are counted as failures and produce a lower success count.

Again, if the trends within the four groupings are examined, there is little coherence over time, even if one ignores the 1940's as 'deviant':

Table 9.11 Inter-Industry Variation in Prediction Rate of the Tightening Link

Industry		1930-9	1940-9	1950-9	1960-9
Raw successes score	Old Staples	86.6	83.0	66.3	74.7
	Light Manufacturing	85.7	85.1	81.7	77.8
	Basic Services	82.2	75.2	71.7	75.0
	New Services	74.1	57.0	60.9	63.9
Standardized success score	Old Staples	38.8	45.0	35.9	54.2
	Light Manufacturing	56.1	68.7	61.7	61.4
	Basic Services	58.1	39.7	34.8	58.4
	New Services	94.8	91.4	100.0	74.5

This lack of coherence is evidence of either differences between the industries, and/or differences in the forty year period, as argued in the previous chapter. Even so, on the basic prediction rates, there is a tendency (albeit with exceptions) for the success rate to fall. On the standardized score, all except the New Services hold their level or increase, if one takes the oldest and youngest cohorts: only in the 1960's do all four take a value in excess of 50%. One could therefore cautiously argue from Table 9.11 for some kind of generalized change which affected all industries (even if some are more affected than others) with the 1960s being in some way different from earlier periods. Similarly, one could argue that the industries also show distinctive profiles, with New Services the most distinctive over the whole period.

If the overall pattern is conceived of as merely the product of these separate profiles, then the size of the four industrial groupings becomes a significant issue. In terms of total manpower, Basic Services with 1153 men is about twice the size of each of the other three. However, it is a declining sector, so that in the 1930's it was over 43% of the total while in the 1960s it

was only 37%. Old Staples declined from 22.8% to 14%, Light Manufacturing showed marginal growth, while the New Services grew from 15.4% to 29%. The effect of those changes is obviously to imprint more of the New Services type of profile onto the overall pattern. It will be noticed however, that the dominant influences throughout remain what is normally taken as the tertiary sector.

In fact this is more true than may be immediately apparent. Although absolute size is important, it is the level of qualification and non-manual opportunity that structures the link predictions. In the 1930s, Basic Services contained 29% of the qualified, while New Services held 38%; by the 1960's this had changed to 24% and 48%, while Old Staples share had declined 5% to about 12%, and Light Manufacturing had not changed. A similar picture appears for jobs, with the New Services increasing from 38% to 53% of all non-manual jobs. Thus the opportunity for the high qualification/high occupation status association is increasingly concentrated in the New Services, while the opportunity for low qualification/low occupational status is concentrated mainly on secondary industry, although this is an increasingly small sector. The occupational/industrial transition is again shown to work both within industries and between industries.

Before leaving this analysis, there is one other observation to make, which refers to the model outlined in an earlier part of this chapter. In Fig. 9.1, it was argued in general that one needed to look at changes in both occupational and educational distributions, and in particular that the balance between the two could show a strong link and a strong association. The data on the industrial grouping in specific periods (such as the Old Staples for most of the forty years, and Light Manufacturing in the 1960's) showed cases where such a balance existed, but in which the connection between education and occupation was poor. We must therefore add a rider to

the earlier discussion and note that Fig.9.1 and its attendant discussion over-simplified the real world, because some other process of job allocation must be at work to explain the relatively high levels of displacement that have been found. Both in these particular cases and indeed in most others, the 'failures' of prediction have been concentrated, if not exclusively located, among the non-manual immobiles and the upwardly mobile although not necessarily for the same reasons.

The analysis of the last few pages has concentrated on the tightening bond thesis per se, which may have obscured, as it were, the reverse side of the coin. That is to say, the same data also point towards a possible explanation of the changes in mobility over time discussed in the previous chapter. It will be recalled that one conclusion was that new non-manual job opportunities were increasingly concentrated in the New Service sector, a sector which throughout the period had recruited a relatively high proportion of sons of non-manual workers. In addition to this, we now know that for most of the period, seven out of ten of such recruits had high levels of education (cols (a), Table 9.8) and while upwardly mobile recruits have less well qualified, they were better qualified than average (Table 9.7). Tables 9.10 and 9.11 also show the New Services to have the highest association of occupation and education, both overall and in each cohort.

The pattern of recruitment is not black and white, but compared with other sectors, the New Services seem to use qualifications as a 'rule' of selection; their non-manual jobs tending on the whole to be ones requiring advanced technical knowledge. Heavy recruitment from non-manual backgrounds may be a by-product of the fact that it is men from these backgrounds who have better access to educational success.

The way in which expanded secondary education opportunities have been largely filled by the children of the middle classes is well documented, so that in the 1960s, the advantaged educational position of such people, together with the dominance of the New Service sector, combined to reduce upward mobility chances.

Some Concluding Remarks

The preceeding discussion has not used the word mobility a great deal, because it has taken all categories of mobility together, whether upward or downward, or present or absent. This has enabled us to argue not only that upward mobility is not closely connected with high educational achievement, but that this can be seen as a natural outcome of the fact that education and occupation have not been closely related. The thrust of the argument has been towards this latter idea.

The reasons that have been adduced for this have been variations on the theme that a satisfactory explanation must be sought in terms of both the increasing supply of qualified manpower and the growth of non-manual employment. As we have seen, the growing importance of the New Services industries has been particularly influential, but it remains for the forty years in question only a minority grouping. Its full influence is only beginning to be felt in the 1960's, while the style of closer connection between education and occupation has been slow to develop in the more traditional industrial sectors.

It must be acknowledged that these comments are based on one particular operationalisation of the question. To take the highest school-leaving qualification, rather than some lower measure, reduces the proportion defined as qualified, while operating with a manual/non-manual dichotomy includes

classes III and IV in the higher occupational category, some of whose members might reasonably be expected to be less well qualified. (13) Even if this criticism is accepted, and the analysis has unintentionally been set up in such a way that the two variables are 'unbalanced', it would still be the case that some kind of connection - increasing over time, and across all industries - should be manifest if there were a tightening link. But on the contrary, this has not been the case. This is not to say that the analysis could not in principle be extended to include other and more complex levels of both qualification and occupation. This would however encroach on the current work of other researchers, and distort the main orientation of the study, which is to demonstrate the utility of a perspective based on the economic dimension.

Having examined the industrial effects in terms of the whole of the non-manual class, it is useful briefly to comment on the upper middle class in particular. It is not necessary to repeat the analysis just completed on the larger group for the latter, to indicate how the two sets of findings fit together. The account of the upper middle class showed in some detail how the present members of that class had experienced schooling. These different experiences reflect the underlying structure of the industrial sectors, with a higher proportion of the New Services upper middle class group being highly qualified than the UMC in the other sectors (72.3% compared with about 50%). In the case of the first jobs, the difference is more pronounced, but with Light Manufacturing perhaps showing a higher level of qualification because of its increasingly technological base.

Taken together, the two sections show in different ways how the connection between education and occupation - and thereby with mobility - is

(13) In fact, this criticism is not entirely true. Class III is relatively unqualified (about 4 in every 5) but class IV is only slightly lower in its qualification level than class II, which in turn is marginally more qualified than class I.

a complex one. When Little and Westergaard wrote of the increase in 'professionalisation, bureaucratisation and automation' they were perhaps more correct than they realised, because it is precisely in those economic activities that these processes have thrived - most notably in the New Services (and to lesser extent in Light Manufacturing) - and that there is most of the little evidence of a tightening link. The overall pattern is also determined by the different performances of these sectors, with the growth in size of the New Services sector clearly the most dominant effect. Nonetheless, given the recency of such developments, and the distribution between the four industrial groupings among, say, the present upper middle class, it is easy to see why the lieutenant class is less qualified than Little and Westergaard imply.

If these lieutenants do not require school qualification to achieve their occupational status, they presumably were able to mobilise some other kind of skill, experience, or ascriptive quality. In the same way, the education of the elite seems to depend less on technical qualification than on some basic advantage which inter alia allows for the purchase of a distinctive education which in turn reinforces the separateness of the elite. But whereas the elite share some kind of educational experience which may help to bind them together, the upper middle class, and by implication the rest of the non-manual class, do not share a common educational culture. This may well help to explain the manifest lack of a middle, or upper middle, class consciousness.

In the light of the data presented in this chapter, the early hopes of the LSE Fabians seem somewhat mis-placed. Ironically, the two major reports of the Nuffield Study, those of Halsey et al (1980) and Goldthorpe et al (1980), symbolise that fact. One deals with class inequalities of access to education, but despite its title of 'Origins and Destinations',

deals not at all with occupational or class destinations. The other deals with mobility but ignores education. Although neither addresses the problem, a de facto separation of family background and education, and of family background and occupational destination, is brought about by the publication of two separate volumes. While this chapter has implicitly given support for such separation, it has not rejected all notions of the connection. Indeed, it was observed above that at the level of a sufficient condition, qualification and both mobility and status maintenance are associated. However, the nature of the association has been shown to depend primarily on the underlying occupational and industrial processes of modern society.

CHAPTER TEN

Careers, Cohorts and Classes

The remaining major focus of previous mobility research has been intra-generational or 'career' mobility, which compares first jobs with those held at a later stage in people's lives.⁽¹⁾ This is not only interesting in its own right, but in the present account it serves two functions. First, it helps to amplify the trend analysis in Chapter 8, which used mobility to first job in order to examine historical changes independent of career effects. Second, career mobility can be treated as part of the work experience of a generation, so providing a perspective on ideas such as deskilling or labour markets which have been used to conceptualise employment processes.

Whereas some occupations are filled by people at the beginning of their working lives, others stand at the top of a series of previous occupational positions. Labouring and many other types of manual work are examples of the former, while managerial or senior administrative jobs in bureaucracies illustrate the latter. Some people start in one type and then move on. A fitter may become a foreman: to be the foreman fitter requires experience as a fitter, but most fitters do not become foreman. To be a fitter is to be in a 'career' which typically has only one step. To be a foreman is to be in a career with two steps in it (few foreman become managers). Some people, such as the sons of the factory owner, or trainee managers, may be required to spend a period on the shop floor, but this is recognised as temporary and therefore different from promotion from the shopfloor for ordinary employees.

(1) In this study 'First Job', the reader may recall, means first proper job; trainees are counted as having entered their occupation from starting their training, following both Registrar General and Nuffield conventions.

Career mobility will therefore operate in various ways within the occupational hierarchy, so that the amount of ultimate inter-generational mobility 'disguised' by an analysis of first jobs is not a constant. For some people, the amount of further mobility is greater than others because they have embarked on a 'career' rather than just taken a job. Again, older men will have already achieved more career mobility than younger men. And if mobility to first job changes over time due to occupational transition, there is every possibility that mobility from first job ie, the subsequent process of obtaining further jobs, also changes historically. The latter point provides the basis for Little and Westergaard's suggestion that as credentialism increases, occupational achievement by work experience and promotion decreases so producing a 'counter-balance', with the result that overall mobility does not change.

Having effectively dealt with the counter-balance thesis in Chapter 9, there is no need to dwell on it again here. However, it is worth commenting on Goldthorpe's treatment of the idea (1980, 54-57) as it is a good example of how difficult it is to sort out what exactly happens. Goldthorpe concludes that the 1972 survey results are

'contrary to the counterbalance thesis in indicating that, over recent decades, an increase in direct entry to the higher levels of the class structure has occurred without there being any apparent decline in the chances of access via indirect routes' (ibid, 57).

His evidence for this is given in his Fig 2.2, and is based on a comparison between men born 1908-1927 and 1928-1947 (and a subsidiary set of men born 1928-1937). The essence of his Fig 2.2 has been presented here as Table 10.1, which shows on the left hand side increases in direct entry, although direct entry to classes I and II from Class I and II origins (ie, self-recruitment) shows a larger increase than all the others put together.

Table 10.1: Goldthorpe's data on Counterbalance: Outflow Percentages*

FROM	D I R E C T E N T R Y T O				I N D I R E C T E N T R Y T O			
	C L A S S E S I & I I		C L A S S E S I I I , I V & V		C L A S S E S I & I I		C L A S S E S I I I , I V & V	
	OLD COHORT	YOUNG COHORT	OLD COHORT	YOUNG COHORT	OLD COHORT	YOUNG COHORT	OLD COHORT	YOUNG COHORT
I & II	23	38	n/a	n/a	36	27	n/a	n/a
III, IV, V	6	11	13	15	23	22	22	18
VI, VII	3	6	8	9	13	13	20	17

* Source: Goldthorpe 1980, Fig 2.2, 56-7. Classes as Goldthorpe not SMS.

The evidence for indirect flows on the right hand side of the table shows a lower rate in four of the five possible kinds of mobility, with self-recruitment again having the largest difference. This would seem to contradict Goldthorpe's statement that there has been no decline in use of indirect routes.

There are two reasons for this. Goldthorpe has chosen to express the use of indirect routes as chances of access, so that he is actually saying that, for those who start work in a lower-level occupation, the probability of regaining advantage does not always change significantly. In other words, he is talking about 'counter-mobility', not counter-balance or indirect access. He deals with counter-mobility on p55, and then summarises on p57 following Figure

2.2, so running the two concepts together. More specifically, he is confusing counter-mobility to classes I and II, with direct and indirect access to non-manual occupations.

The other reason for the inconsistency between Goldthorpe's results and his commentary is his confusion of changes in a process over a historical period and the stage of development reached by particular cohorts (a problem identified earlier in the discussion of Glass's work). If one is talking about direct entry, as defined by first job, then a comparison between cohorts will provide information on the process of occupational attainment and how this changes historically. There is no career effect, because all cohorts are taken at the same stage of development. However, 'indirect mobility' is indicated by movement to the job at time of interview, and younger men have progressed less far in their careers than older men. Thus other things being equal, older cohorts would show more indirect entry than younger cohorts, and in Goldthorpe's terms, the chances of counter mobility should decrease. But as Table 10.1 shows, although the older cohort does indeed have more indirect mobility, the amounts of difference are not very great, while Goldthorpe indicates that his probability of counter mobility remains at just under 50%.⁽²⁾ It therefore seems plausible to suggest that indirect entry may be actually increasing in such a way as nearly to balance career progression. Goldthorpe may after all be correct in his conclusion, but not for the reasons which he gives. The moral is clearly that trend analysis using cohorts is not the most straightforward of exercises, and suffers considerable limitations when career development is not taken into account.

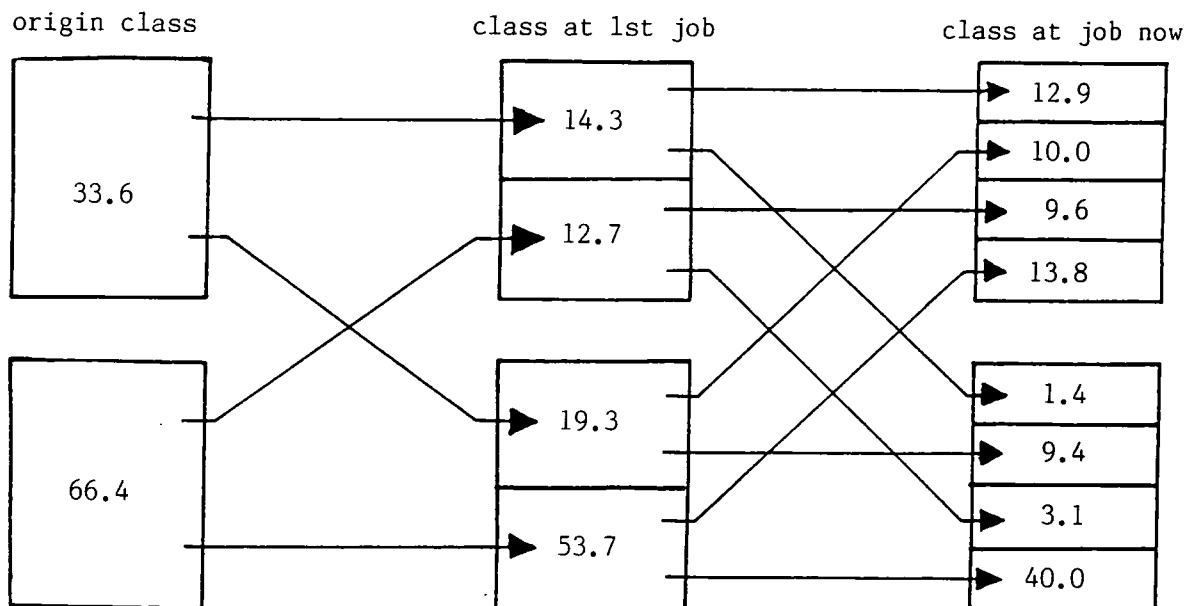
(2) In fact, if one calculates all chances of counter mobility by including Goldthorpe's classes III, IV and V, the probability increases from about 50% to 55% for the men aged 35 and over (the subsidiary set). If we accept that these men do indeed have completed careers, then the comparison between them and the oldest set, in showing an increase in counter mobility, lends support to the idea of increased indirect mobility coinciding with increased direct mobility.

Direct and Indirect Mobility

In the analysis of trends in Chapter 8, it was necessary to control for career effect, and so take a job in the early career for all respondents. First job was chosen as the best available because it covered a longer period, marks the change from background and education to employment, and first job influences subsequent career development. The point was made at the time that this is only one index of mobility, and an incomplete one: there is more mobility to come due to career progression. The idea of direct and indirect entry can be used to estimate the size of this effect on the inflow rates used in the earlier analysis.

For ease of explanation, the first information on entry routes is presented for the whole sample, using the manual/non-manual dichotomy. Figure 10.1 shows the structure of the movements with its main points summarised below.

Fig. 10.1 Direct and Indirect Entry to Non-manual Work: n = 4027



At first job, non-manual = 27.0%	At job now, non-manual = 46.2%
of which immobile = 14.3%	of which immobile = 22.9%
upmobile = 12.7%	upmobile = 23.4%

Between first and current jobs, the non-manual sector has grown as a result of career development and occupational transition by about 20% overall. This has drawn in 24% of indirect entrants, slightly more from manual origins than from non-manual (the extra 4% to balance indirect downward movement which we note is a relatively small factor). In round terms, mobility to first job accounts for about half of all mobility as measured to current job. The pattern of direct recruitment to non-manual first jobs - very roughly half and half from manual and non-manual origins - is repeated for the indirect recruitment. To be more precise, 53% of non-manual first jobs go to the sons of non-manual fathers, compared with 49% of current jobs. The difference is small, indicating a slight tendency for the sons of manual workers to 'catch up' on the sons of non-manual workers by career achievement.

This way of looking at the data uses the whole of the sample, in contrast to Goldthorpe's method of relying on outflow rates, which effectively standardizes the size of the origin categories. In looking at cohorts, we can also examine inflows, which will tell us more about the present composition of each class, and how its members have arrived there. Because the data will be used in several ways, summaries in tabular form will be presented in preference to diagrams.

Table 10.2 corresponds to Figure 10.1, with rounding of percentages to whole numbers for ease of comparison.



Table 10.2: Direct and Indirect Entry to Manual and Non-Manual Classes

Origin Class	% mobility	Direct to		Indirect to	
		Non-manual	Manual	Non-manual	Manual
Non-manual	Gross	13	9	10	1
	Outflow	42	58	30	4
	Inflow	28	17	22	3
	n	519	378	401	55
Manual	Gross	10	40	14	3
	Outflow	19	81	21	5
	Inflow	21	74	30	6
	n	385	1610	554	125

Comment has already been made on the gross mobility percentages. The outflow figures show that, respondent for respondent, non-manual sons are twice as likely to obtain non-manual jobs by direct access as sons of manual sons and also have a 50% better chance of indirect access. The inflow figures however show that the two groups make up a slightly more even proportion of direct entrants (28% to 21%) and that the sons of manual workers are the larger group of indirect entrants (30%). However, direct and indirect access figures are not quite the same as mobility to first job and mobility thereafter, because 'direct mobility' excludes those who subsequently become downwardly mobile between first job and job now. These are counted as indirect entry cases, but as the right hand column shows, they

represent a fairly small category.⁽³⁾ In general, the sons of non-manual workers have higher rates of access to non-manual positions, and achieve them earlier in their careers.

These patterns show some signs of changing over time. Table 10.3 presents data for four cohorts: men entering work between 1930-9; 1940-9; 1950-9; and 1960-9; the dates having been selected on the basis of the moving averages analyses in earlier chapters. Men in the '1950s cohort' will have worked for between 25 and 16 years: the youngest men would have left school aged 15 and been 31 years old at interview. Most men leaving school at that age enter manual work, and will have had 16 years in which to make their achievements. It is reasonable to suggest therefore that most but not all of this cohort's career mobility, at least in terms of crossing the manual/non-manual line, will have been completed. The same cannot be said for men entering work in the 1960s (and in particular the later years) who clearly lack their span of career achievement.

These figures show how difficult it is to talk about trends: the 1960s display very considerable variation from the other cohorts, while we also know that the 1940s cohorts includes the Second World War and its immediate post-war disruption. Proceeding cautiously, one can observe that direct entry mobility rates rise throughout, for both classes of origin. The relative (outflow) chances at beginning and end of the period are much more in favour of the non-manual sons (about

(3) For this reason, they can be omitted from most of the later tables so that greater simplicity of presentation may be achieved. The data in Fig 10.1 provide a useful illustration. The two sets of figures are 14.3% immobility at first job and 12.9% direct access from non-manual origins, and 12.7% upward mobility and 9.6% direct access from manual origins. On the other hand, if direct and indirect access are added together, the result is identical to mobility measures at job now, because mobility at that point includes movement by whatever routes. The two measures could both be used to explore whether mobility trends taken at first job are modified by later career mobility: the mobility measure is the more straightforward, whereas the access measure provides additional information about patterns of career mobility.

Table 10.3: Direct and Indirect Entry to Non-Manual Occupations in Four Cohorts (date of first job)

Origin Class	mobility	Direct Entry					Indirect Entry			
		1930s	1940s	1950s	1960s	1930s	1940s	1950s	1960s	
Non-Manual	Gross	10	10	12	19	14	10	10	6	
	Outflow	30	34	37	48	42	35	33	16	
	Inflow	22	20	24	42	31	21	22	14	
	N	94	92	112	221	132	96	99	74	
Manual	Gross	5	10	10	12	15	18	16	8	
	Outflow	8	15	15	19	22	26	23	13	
	Inflow	12	21	22	26	35	37	32	17	
	N	52	97	99	137	147	170	148	89	

four times better in the 1930s and two and a half times in the 1960s, as against just over twice in the 1940s and 1960s). The middle two cohorts also show more similarity on inflow. Perhaps the best summary of direct entry is that, while the non-manual sons made steady gains in mobility for the three decades, the sons of manual workers to some extent closed the gap by the 1940s, held on in the 1950s, but then despite increasing their mobility further, were left behind in the 1960s by a surge of non-manual access by the sons of the non-manual class (4)

The indirect entry figures are rather different. Leaving aside the 1960s for the moment, there is decline in indirect entry by the sons of non-manual workers (although little difference between the 1940s and 1950s) while the sons of manual workers did marginally better in the 1940s but have a similar pattern for the 1930s and the 1950s. At the beginning of the period, the non-manual sons were twice as likely to enter non-manual work, by the 1950s that differential had been halved, and the inflow measure shows about a third of all non-manual jobs going to indirect entrants with manual backgrounds. The manual entrants seem to have retained most of their indirect entry while gaining on direct entry. The non-manual entrants have gained on direct entry and relinquished some of their indirect access.

Where do the 1960s come into this? It is too early to tell whether the indirect access patterns are simply a result of incomplete careers or of a more basic change in the recruitment pattern. Certainly direct access is at its highest, so the extent to which there is room for indirect access may be reduced unless the non-manual class has grown enough to balance this. One way of looking at this is to

(4) Of course the moving averages give a more accurate time picture and show how imprecise such approximations are.

consider three 'job points'; first job, job 10 years later and job at time of interview. This helps to focus on the career effect, and elaborates the points made above in connection with Figure 8.3, because we can calculate the amount of mobility between points.⁽⁵⁾

Mobility in Career Stages

The amounts of mobility at the three job points are shown in Table 10.4. The generally rising proportions obtaining non-manual work at first job and 10 years after starting work is clear from columns (a) and (b).

Table 10.4: % Gross Mobility/immobility, Non-Manual Occupational Destinations

Cohort	Origin	(a) 1st Job	(b) 10 Yr. Job	(c) Job now	(b) - (a)	(c) - (b)
1930s N = 976	Non-manual	10.7	13.9	23.2	3.2	9.3
	Manual	7.6	11.3	20.4	3.7	9.1
1940s N = 930	Non-manual	10.9	16.5	20.2	5.6	3.7
	Manual	13.4	18.3	28.7	4.9	10.4
1950s N = 954	Non-manual	12.2	17.4	22.1	5.2	4.7
	Manual	13.1	19.2	25.9	6.1	6.7
1960s N = 1167	Non-manual	21.7 (20.6)	24.3 (23.9)	25.3	2.6 (3.2)	1.0 (1.4)
	Manual	15.9 (15.1)	18.7 (20.2)	19.4	2.8 (5.1)	0.7 (-0.6)

(5) This difference measure is in fact a general index of mobility rather than a measure of mobility routes. That is to say, it is based on proportions at three discrete, cross-sectional points, and does not attempt to trace individual cases of career mobility at three consecutive points. In this respect it differs from the analysis of Fig. 10.1 by showing changes net of upward and downward movements, rather than direct and indirect access to non-manual occupations. See also footnote (9) below on the coding of '10 year jobs'.

If we look at the differences between first job and job 10 years later (the two fixed points for each cohort, as opposed to the variable career length to job at time of interview) two main features stand out.

On the one hand, the percentages from both origins obtaining non-manual jobs in the opening decade of their careers show a slight increase, except for the 1960s. But men entering work after the mid-1960s had not worked a full 10 years by the time of interview, so this dip is not unexpected. Indeed, if we take men who fall into the first half of that cohort (starting work between 1960 and 1964 - the numbers in brackets in table 10.4) then there is less of a fall.

On the other hand, the differences between men with manual and with non-manual backgrounds in each of the four cohorts is very small (less than one percent), and both origins show similar upward trends. This suggests that the expansion of non-manual opportunity continues to work 10 years into the career rather than all opportunity being increasingly concentrated into initial employment. If anything, the opportunities for career mobility are increasing and this applied to men of both class origin.

The third feature of early career achievement is that men with non-manual origins in the 1960s represent a distinctive new level of entry to non-manual employment: 21.7% at first job and 24.3% after 10 years (columns (a) and (b)). The sons of manual workers, however seem to display a continuation of earlier trends by increasing their achievement by one or two percent (at least for those starting work in the first half of the 1960s) whereas the non-manual sons jump by several percentage points - up by almost 10% at first job. This particular category will require further consideration.

Turning next to the variable section of careers between '10 year job' and job at time of interview, we see no uniform direction of change even in the three cohorts in which careers have had time to

'mature'. Nor do the two origin groups even show moves in the same direction between cohorts (eg, 1930s and 1940s; 1940s and 1950s). It seems therefore that mobility after the first 10 years of work varies according to which cohort one is in, and what origins one has, so that the process of occupational attainment has not been systematic since 1930. For the sons of non-manual workers, there is already a higher proportion in non-manual work in the 1960s cohort than in any earlier cohort. This fact tends to reinforce the impression gained from the other cohorts that while the sons of manual workers who started work in the 1940s, and to a lesser extent in the 1950s, did relatively well compared with the sons of non-manual workers, any advantage gained since the 1930s has been lost in the 1960s.

How does this amplify the conclusions drawn in Chapter 8 on the basis of first jobs? For the 1930s cohort, the continuing process of mobility moves men from manual and non-manual origins upward in parallel by about 9%: the first job analysis has apparently sliced off the first part of a uniform process in which the first 10 years of career accounts for about a quarter of total mobility, ie, roughly in proportion with the period's share of the full career. In the next cohort (the one affected by the Second World War), the later career seems to show less movement. Sons of non-manual workers peak earlier and lower than in the previous cohort, while their manual counterparts continue to hold on to their relative advantage set by their success on developing much as in the previous cohort. Compared with eventual full mobility, the first job mobility pattern tends slightly to overestimate non-manual attainment relative to manual attainment. In the 1950s cohort - and now we are approaching the point where 'full career mobility' may not be achieved - the two origin groups move more in concert once again. There may be more mobility yet to come, but the

first job picture seems to be carried through. As we have established that even the '10 year job' data on the last cohort is incomplete, there is little to be said about the 1960s, except of course that for the time being the first job figures necessarily correspond quite closely to the other later measures of mobility.⁽⁶⁾

Thus while first job mobility cannot give a precise picture of eventual mobility, both the access and the stages of mobility analyses confirm the general pattern earlier identified in trends of recruitment. That is to say, there is no evidence that what is happening at first job is counteracted by a different process in later career. Therefore we can use recruitment patterns for men starting work as a good indicator of whether mobility as a whole is increasing or decreasing. It follows that the conclusions in Chapter 8 can be taken with greater confidence, because a potential hidden counter-effect has been eliminated. On the other hand, it must be remembered that this is a statement of the 'broad brush' position: career mobility does modify the details of mobility gained from first job analysis. One would need to proceed with caution before generalising from some of the more localised or specific points at first job to total mobility.

We can also now comment on whether indirect mobility is changing over time, although both the 1950s cohort (to some extent) and the 1960s cohort (to a great extent) have truncated career spans.

(6) It is on the other hand interesting to speculate that if the 1950s pattern of career achievement is projected onto the 1960s cohort, then there is a further 5% overall mobility for each of the two origin groups to achieve. This would give a final figure of at least three-quarters of non-manual sons and nearly half of the manual sons entering non-manual employment by the end of their careers. These mobility statements of course relate to broad categories: however much of the more detailed movement across 7 classes shows the same pattern (see below).

Indirect movement to non-manual occupations by the sons of non-manual workers seems to be decreasing slightly; if there were even a little more movement yet to come in the 1950s cohort, this would be enough to halt any talk of a trend. Similarly, among the sons of manual workers, there would be no decrease. It can therefore be stated that the increase in direct entry is not yet offset by a decrease in later career mobility. However, the 1960s cohort shows such an abrupt change that it may be an early indication of a structural change in that decade.

Finally, what do these patterns imply for the experience of mobile and immobile people? If one takes the older men now in non-manual employment, perhaps a fifth have come from manual origins, plus another two-thirds who, whatever their backgrounds, have 'worked their way up' in their own careers. That is to say only about 1 in 5 are straight second generation non-manual. Among the younger men (who may in due course be joined by others who have worked their way up) the direct entrants from manual origins are a quarter, but the indirect access of those with even some work life experience of employment is down to one-third. The direct second generation non-manual entrants make up 2 in every 5 of the younger non-manual workers. If this continues, fewer incumbents of the non-manual class will have lived part of their lives in a manual working class environment, as background and/or career. As we shall see, this is a product of the emerging structure of employment opportunities.

Industrial Sectors and Mobility Routes

Both on a commonsense basis and on the evidence from Chapter 8, different mobility routes are to be expected in the various industrial sectors. Farming for example is typified by sons of farmers working as farm labourers before inheriting the 'non-manual' rank of farmer from their fathers, whereas the new services of public

administration and commerce have much larger proportions of non-manual posts. The results of such features for routes to non-manual posts is shown in table 10.5, for the three-quarters of the sample who have worked for a single sector.

Primary Industry has virtually no upward mobility at first job, and a very low flow to job now. The main route is indirect entry for the sons of non-manual workers, which accounts for one-third of the sector, and two-thirds of the available non-manual positions. This is two or three times greater than any other sector. The indirect flow for sons of manual workers is also considerable, and although generally lower than the rest of the sample on gross and inflow measures, on outflow comes closer to the other sectors.

The direct entry patterns for Old Staples, Light Manufacturing and Basic Services are very similar, but less so for indirect entry. Old Staples have lower rates of indirect recruitment from non-manual origins, while Basic Services have higher rates of indirect recruitment from manual origins. Old Staples has a high proportion of its non-manual employees recruited from manual origins (ie, total infow = 65%).

Finally, the New Services have distinctive recruitment routes for men with non-manual origins. This group make up half of the inflow, through direct access, and altogether 85% of this group end up in non-manual work. Even the sons of manual workers have distinctively high rates of access at first job; their indirect access is more typical of the other sectors, except of course that as a proportion of all employees this group must be relatively small.

The five sectors have a range of non-manual proportions, from 9% to 63% at first job, and 27% to 81% at job now. Old Staples, Light Manufacturing and Basic Services expand by about 12%, New Services by 19% and Primary Industry by 40%. This does not explain the recruitment

Table 10.5: Entry to Non-manual Employment by Origin class: Fine Industrial Sectors

Class of Origin	Mobility %	Direct Entry					Indirect Entry				
		Ag. & Fish.	Old Staples	Light Manuf.	Basic Servs.	New Servs.	Ag. & Fish.	Old Staples	Light Manuf.	Basic Servs.	New Servs.
Non-Manual	Gross	7	6	9	10	40	34	3	8	9	10
	Outflow	11	32	34	31	74	54	17	27	28	19
	Inflow	14	23	25	22	50	69	12	20	21	13
	N	22	34	100	178	239	110	18	80	163	60
Manual	Gross	1	7	9	8	19	8	11	12	17	11
	Outflow	1	8	12	12	43	22	14	17	25	24
	Inflow	1	24	24	19	24	16	41	31	38	13
	N	1	36	95	153	113	26	62	126	303	64

patterns of the two origin classes: for example in Primary Industry, both origin groups are overwhelmingly recruited after first job, but in Old Staples and Basic Services, manual workers also enter non-manual work to a very marked extent by the indirect route. Similarly, Basic Services and Light Manufacturing have almost identical 'profiles' of opportunity, but whereas in the former two out of three sons of manual workers use the indirect route, in the latter indirect and direct entry are almost in balance. These results indicate different career structure for the non-manual work available in each sector.

This suggests a slight modification of the conclusions about trends in earlier chapters. First, very little was said then about Primary Industry: we now see that such mobility as it contains does not show up at first job, and its non-manual incumbents will typically achieve their position later in life having worked in a manual capacity. Second, the three sectors of Old Staples, Light Manufacturing, and Basic Services show broadly similar rates of career mobility, so that conclusions based on their first job patterns apply in principle to later mobility, in that their characteristics are carried on through the career. However, Old Staples tends to have less indirect access for the sons of non-manual workers, so that relatively speaking there is more upward career mobility in that sector than the other two.

Third, the New Services' indirect access shows less of the sharp class differential at direct entry, but since this is not a reversal of that position, but rather a roughly equal increase to the proportions at first job, the conclusions drawn from the first job pattern do not require substantial re-evaluation.

Indeed, the basic observations generally hold true. There is no substantial evidence that career mobility works to remove the sectoral effects evident at first job. Rather, the structural pattern

established by recruitment of men beginning work seems to remain with them for the rest of their careers. Their mobility is dependent on the mix of industries in the society at any given time, both on entry and in subsequent careers.

However, this is to relate sectoral figures for the whole sample to a trend analysis for cohorts. To be more accurate, we also need to compare cohorts within each sector, although once again the numbers in some of the cells become very small. To overcome this, Table 10.6 concentrates on gross mobility rates. On the whole, these figures confirm the earlier statements made on the basis of separate cohort and sector analyses. The distinctiveness of the 1960s, on both direct and indirect access, applies to all sectors except possibly to the small Primary sector for direct entry. Direct entry tends to rise across the board, except for the sons of non-manual workers in the New Services in the 1940s, a deviant pattern that has no immediate explanation. The middle of the period shows that manual sons in all sectors except the Primary closed the gap between their chances and those of the non-manual sons of direct access to non-manual work. However, in New Services and Light Manufacturing, the position of manual sons has not improved for indirect access. The statements about the sectors also hold true, although one notices a slight increase in upward mobility may be creeping into the recent years of Primary Industry, while the Basic Services' higher proportions of indirect access by manual sons is more obvious in the late cohorts (7).

(7) As we know from Chapter 8, the different sizes of these sectors in terms of their non-manual occupation opportunities gives each sector a differential weight in the overall picture. Thus Basic Services with two-fifths has the largest impact, while New Services and Light Manufacturing (both over one fifth, and the former growing rapidly in the 1960s) also produce substantial effects. Primary Industry is a small and declining sector in these terms, while Old Staples, despite overall shrinkage, have maintained their small share of all non-manual jobs. Similarly the 1960s cohort is about 10% larger than the others (the post-war 'baby boom') and so the more recent changes like the expansion of New Services in the 1960s have slightly more effect on the sample as a whole.

Table 10.6: Access to Non-manual occupations by cohort, sector and origin class: % of movement in each cohort/sector.*

Industry Sector	Origin Class	Direct Entry					Indirect Entry				
		All	1930s	1940s	1950s	1960s	All	1930s	1940s	1950s	1960s
Primary N = 269	Non-Manual	6	4	9	4	7	34	46	34	32	20
	Manual	1	0	0	2	0	8	5	10	11	7
Old Staples N = 459	Non-Manual	7	4	6	5	13	3	4	3	4	2
	Manual	7	2	7	8	13	11	10	16	11	7
Light Manufacturing N = 946	Non-Manual	10	8	9	8	14	7	6	8	10	5
	Manual	9	6	10	10	10	12	18	15	13	5
Basic Services N = 1589	Non-Manual	10	7	8	10	13	9	14	9	9	6
	Manual	9	7	10	8	10	17	18	22	18	10
New Services N = 477	Non-Manual	48	34	21	38	53	11	15	14	11	7
	Manual	19	8	23	24	22	12	17	16	13	5
All N = 3740	Non-Manual	13	9	9	12	19	10	13	11	10	6
	Manual	10	5	10	10	12	14	16	18	15	7

* ie Cells do not total to 100% because non-movers are excluded: eg in Primary industry, 49% (6 + 34 + 1 + 8) moved into non-manual, and 51% (not shown) became manual workers.
Cohort numbers = 808, 860, 886 and 1006.

It is interesting to note how these patterns are associated with levels of education. The original counter balance model assumed that direct access would be by means of qualifications, and indirect access - by job experience and promotion - would therefore be reduced. It is true that direct access is more closely associated with education: overall, two-thirds of direct entrants had more than minimum school leaving age (MSLA) experience of secondary education, compared with less than one-third of the indirect entrants. But of course, this still allows one-third of direct entrants to have only basic education, and one in three of the indirect entrants had post-basic secondary education in addition to their career experience to help them achieve mobility.

In all industrial sectors, regardless of class of origin, the direct entrants were better qualified than indirect entrants. However, whereas 77% of direct entrants among non-manual sons were educated beyond the minimum, only 52% of the sons of manual workers were, while the indirect entrant figures were 40% and 17%. The higher qualifications of non-manual sons applies to all sectors and routes of access. Thus while there is a relationship between direct and indirect access, there is also a strong class of origin effect, and the nature of the former is not so strong as might have been expected from the Little and Westergaard formulation.

In Primary and Old Staple industries, minimum education was the most common (60%) for both classes of origin, whatever the form of entry, but in New Services over 90% of direct entrants and nearly 50% of indirect entrants had more than MSLA education. Light Manufacturing came next with 61% and 32%, followed by Basic Services with 52% and 21%. It follows that while there are access and origin effects, there is also a sectoral effect at work, most notably in the two extremes of the sectoral range, Primary and New Services industries.

In comparison, the cohorts offer a rather confused picture. Both the 1930s and the 1960s have high levels of education for direct entrants (71% and 76%) but the levels are lower in the 1940s and 1950s (58% and 55%). On the other hand, the levels for indirect entry are at about 30% for all cohorts except the 1950s, which is only 15%. Two historical 'events' seem to be intervening here. First, the 1940s cohort has had both its education and its direct entry to work dislocated by the war and its aftermath: therefore its direct access is low, but that leaves a core of qualified men who later became indirect entrants to non-manual work. On the other hand, the 1950s cohort reflects a generally lower level of educational achievement. This has been attributed to a particular feature of the Scottish educational system at that time, a 'consolidated' examination certificate in which all subjects had to be passed at one attempt. Contemporary comment noted how this leaving certificate was unattractive to the sons of manual workers as, if they failed, they were then too old to obtain apprenticeships. Indeed, the pressure to change this system grew rapidly during the 1950s until a disaggregated qualification was introduced, with an immediate result that many more children began staying on at school after minimum school leaving age (see Ford et al, 1975).

These educational patterns do not resemble Little and Westergaard's expectation of a simple counter-balance of more educated direct entrance and less uneducated indirect entrance. There are continued origin, route and sector effects, together with concrete historical variation. On the one hand there are the continued association of origin and education, and the expansion of education, so that even indirect access shows more education. On the other, the fit of education and occupation is not as close as other commentators have previously believed.

Because our major interest has been to establish links with Chapter 8, the account so far has dealt with manual/non-manual patterns. The logic of the analysis can be extended to any other structure of classes: Goldthorpe as we saw uses three occupational classes. Two complications follow however: the numbers in each cell become increasingly small, and the direct/indirect patterns change because the more classes, the more routes of indirect access are created, and the higher becomes the proportion of movements that are classified as indirect. One example of this is given in table 10.7, but there is not a great deal to be gained by extending this analysis.⁽⁸⁾ We can observe in passing that the top left hand quadrant of table 10.7 shows how heavily classes I and II are concentrated in New Services, whereas that sector does not have such a distinctive profile for classes III and IV (lower left hand quadrant). In terms of overall effect (since this table presents overall gross mobility figures as an amplification of the previous paragraph) the indirect route via Basic Services is very striking: future mobility to classes III and IV for the youngest cohort will most likely be in this sector and to a lesser extent in Old Staples and Light Manufacturing. Future mobility to classes I and II is likely to be much more concentrated in New Services. The table as a whole shows how direct entry to classes I and II apart from New Services is at a lower level and shows less change for most of the period than direct entry to the other two classes.

With the main patterns of career effects on access to non-manual occupations established, there is not a high priority to further elaboration of the cohort/sector/class line of analysis. Of rather more interest is to use career mobility as a tool for investigating

(8) The patterns for class 1 are similar to the patterns for classes I and II reported in Table 10.7. We can conclude that the general argument developed for manual/non manual mobility applies to other, more specific occupational classes, although of course each will show a slightly different pattern of specific links between occupations.

10.7: Gross upward cohort mobility by sector and route.*

Entry to Class	Sector	Direct Entry				Indirect Entry					
		1930s	1940s	1950s	1960s	All	1930s	1940s	1950s	1960s	All
II & I	Primary	0	0	2	0	1	3	4	4	2	3
	Old Staples	1	1	2	5	2	2	7	4	4	4
	Light Manuf.	1	2	2	5	2	10	9	7	4	7
	Basic Services	1	1	2	2	2	8	8	8	6	7
	New Services	3	8	15	16	11	15	20	13	4	11
	All	1	2	3	5	3	8	9	8	5	7
III & IIII	Primary	0	0	0	0	0	3	5	7	5	5
	Old Staples	1	3	3	5	3	9	12	10	5	9
	Light Manuf.	1	5	6	3	4	12	8	9	3	8
	Basic Services	3	4	4	6	5	13	18	13	6	12
	New Services	2	3	6	4	4	5	8	4	2	4
	All	2	4	4	5	4	10	13	10	5	9

* The figures for entry to non-manual jobs in table 10.6 are not split in a simple way between classes I & II, and III & IV, because the sub-division of the non-manual sector creates extra indirect routes, so transferring flows from direct to indirect. The total direct plus indirect flow will be the same however (subject to rounding error).

other areas in which there has previously been no use made of mobility rates. In the opening chapters, Braverman's deskilling thesis, and the segmented labour market model were introduced as areas of debate to which an analysis of occupational, as against social, mobility could contribute. Both are also areas in which the manual working class can be differentiated and given more attention than in the earlier parts of this study.

The Deskilling Thesis

Braverman's account of deskilling deals with several levels of occupation, but the core case is that of skilled manual work. In British terms, this can be equated to SEG 9 (see Chapter 5 above), jobs requiring the completion of an apprenticeship for entry: in the present study, the equivalent is occupational class V. If one is to seek evidence of deskilling it will be in changes involving this stratum (see Lee, 1981, 63).

Following Braverman, we might expect first, that the number and proportion of skilled manual workers would decline. Second, formerly skilled labourers would be displaced into less-skilled occupations within new and more competitive industrial processes (creating downward mobility). Third, the employer would be able to substitute less-skilled labour for skilled labour, in that occupation (ie, creating upward career mobility for the former). Fourth (and not directly accessible from the mobility data) skilled workers should find themselves doing less skilled work under the same occupational title. The 'distance' between skilled and less skilled occupations is reduced, so that it becomes 'easier' for individuals to move between the two categories. This should be visible in the career histories of skilled workers who have been exposed to deskilling in their life-times: the flow out of skilled occupations into less-skilled ones should increase

with time, as should the counter-flow of men with lower levels of skills into 'skilled' work. The increase in levels of deskilling over time is a result of the increasing pressures for profit maximisation under capitalism, but there should also be a higher rate of deskilling among older men who have been 'at risk' of being deskilled longer and have old skills which are increasingly irrelevant.

In a parallel, but less direct, way inter-generational mobility between skilled and less-skilled classes should also increase.

This is because the skilled class has its essential social differences removed: deskilling erodes income, work status, and any cause of separate identity due to possession of craft skills. It is therefore to be expected that any social advantage or informal mechanisms of controlling entry to occupations for the next generation will similarly be eroded. Sons will be less likely to follow fathers into skilled work, while the sons of less-skilled workers will be better able to compete for jobs whose skill content has been reduced and which are no longer perceived as anything 'special'.⁽⁹⁾

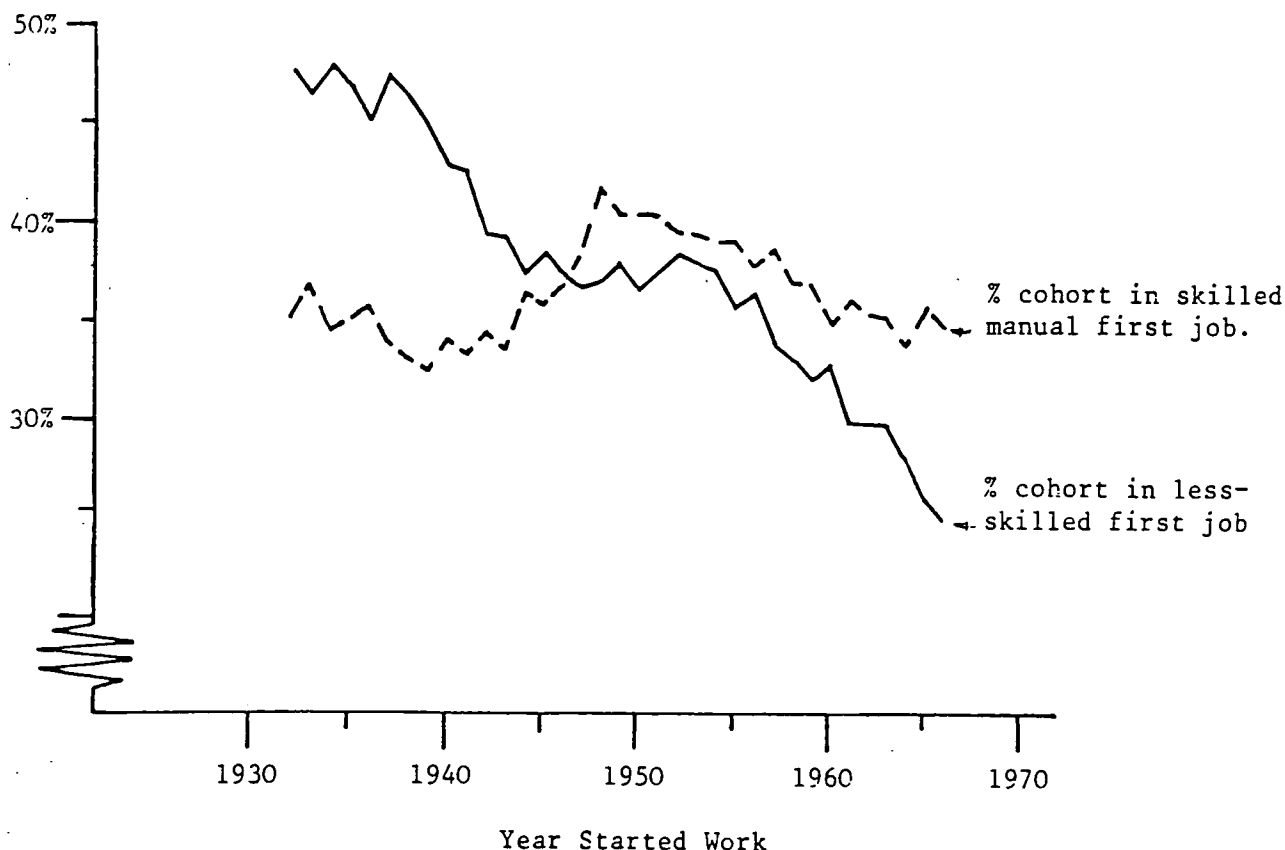
The evidence for the first of these propositions, that the scale of skilled employment is being reduced, is substantial. As the time-series in Chapter 5 showed, SEG 9 has decreased between 1921 and 1971 from 38% to 33% of male occupations. The difference between fathers' and sons' generations in the mobility tables in Chapter 7 was about 8%,⁽¹⁰⁾ while, at least post-Second World War, the proportion of men in the SMS sample starting work as apprentices has declined from just over 40% to around 35%.

(9) The same argument can be made for the proletarianisation of routine white collar workers, although given the small numbers of these in the present study, this is not developed here.

(10) The caveats entered in Chapter 6 about estimating the fathers' occupational distributions from a sample of sons should be borne in mind.

However, even this substantial evidence is not sufficient to carry complete conviction. On the one hand, the decline in skilled manual recruitment is concentrated in the post-war period, and may well only reflect a temporary increase in recruitment due to the Second World War. On the other hand, the deskilling thesis calls not only for a reduction in skilled employment but also an increase in less-skilled manual work. In fact the reverse is true: as Fig 10.2 shows, recruitment to the latter category falls from around 45% to 25%.

Fig. 10.2: Moving Averages for 5 Year Cohorts (Year of Entry):
Proportions in Entering Skilled and Less-Skilled
Manual First Jobs



The decline in less-skilled employment as a first job is one of the largest effects in the study. Fig. 10.2 also shows the complexity of skilled manual recruitment. Its initial small dip in the curve, and its subsequent peak coincide with the war and the post-war

adjustment, when, after fewer young men had served apprenticeships between 1939 and 1945, there was an effort to step up training in the late 1940s. From that high point in the years 1946-1950, the recruitment of skilled men has dropped about 5% or 6% (although the proportion of successive cohorts still in skilled work at the time of interview does not fall. (11))

These proportions of skilled and less-skilled workers are of course not only the results of recruitment policies dealing with manual labour, but also arise from the recruitment of non-manual workers. A substantial part of the decline in less-skilled work as a proportion of the whole is produced by this latter effect: for example, in both 1944-1948 and 1956-60 the absolute number of men entering less-skilled work at first job was the same, but in the former case they made up 37.2% of the total, and in the latter only 32.8% (although of course, over the whole period, there is also a big drop in absolute numbers, about 215 to 150 in the respective 5 year cohorts). In other words, the 'decline' of manual work is partly due to a long term shift in employment patterns which has expanded the requirement for non-manual labour from about 18% of starting jobs to 35%. The fact that skilled manual work continues to recruit at a relatively high level shows a marked continued demand for such labour because the overall market is so dominated by the shift to non-manual work.

However, this decrease is not necessarily due to deskilling in Braverman's sense. An alternative explanation has already been suggested, namely that some industrial sectors are in decline, so removing job opportunities. Between 1961 and 1971, the main loss of skilled manual jobs was in the old staples, transport and distribution, and while this was balanced to some extent by new opportunities in

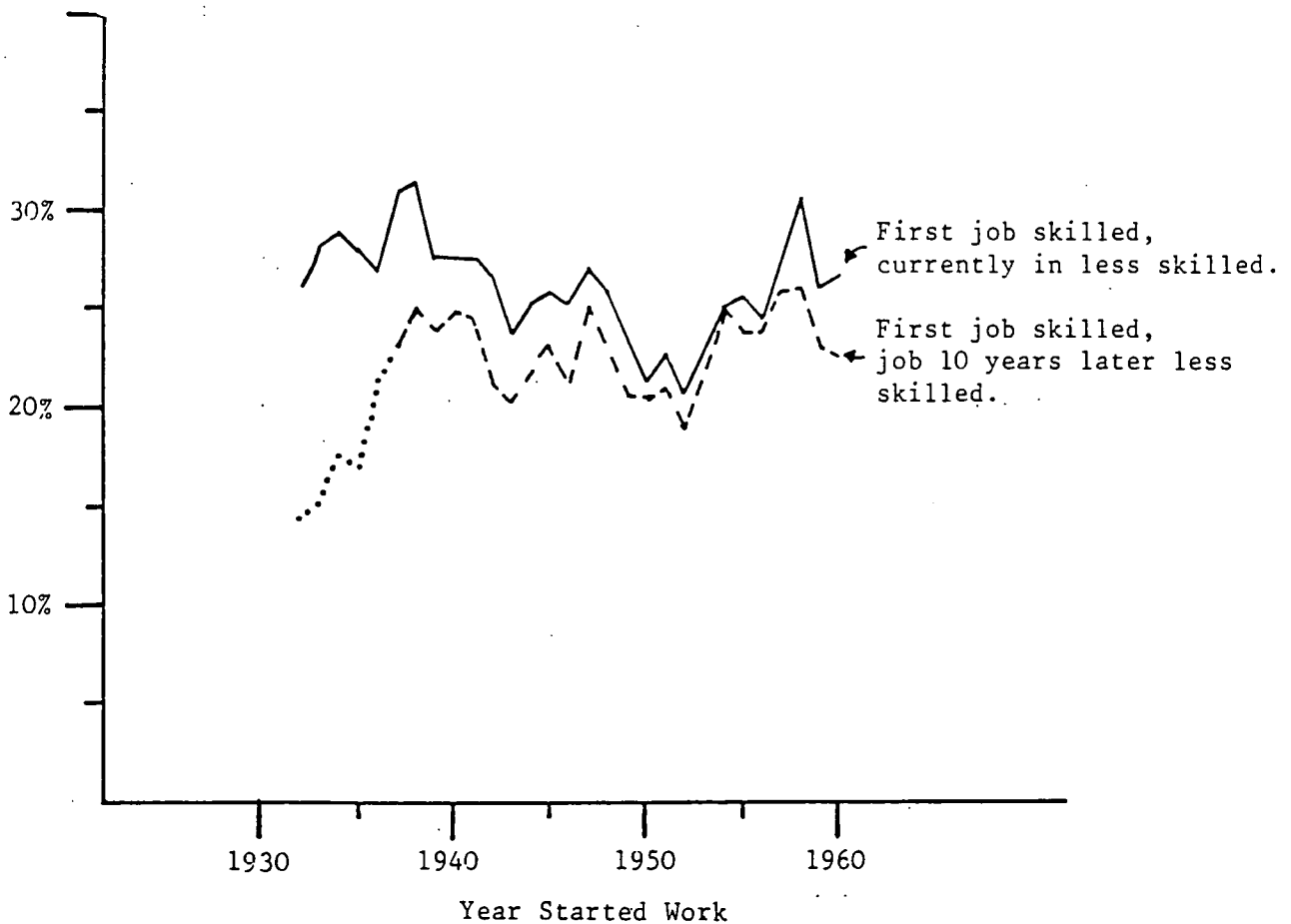
(11) As we shall see below, the re-sorting process is concentrated into early career, so that the younger man in the sample may not yet have been fully re-sorted out of skilled work, so inflating the apparent number still in that category.

several other sectors, the net effect was a drop of 100,000. Kendrick et al attribute more than half of this to an industrial effect, with almost all gains being in newer industries (1982b, 117). It seems plausible in the light of the discussion in Chapters 4 and 5 that this process also operated to some extent in earlier decades. The changes in the size of the skilled category will affect the other changes that have been hypothesised.

Turning now to the second proposition, we can use the moving average technique employed in earlier chapters to explore the fate of skilled workers in a supposed period of deskilling. Fig. 10.3 deals with downward mobility, ie, those skilled workers displaced into other less-skilled jobs. The upper line shows mobility between first job and job at time of interview for men starting work as skilled manual workers. One disadvantage of this measure is that older men have had longer careers than younger men, so a line (the lower one showing mobility between first job and job 10 years later) has been plotted which controls for this career differential. Unfortunately, for technical reasons in coding those of the latter jobs which fell during the war years, there is not much that can be said about the early part of the data and the line is therefore shown only by dots. (12)

(12) Men whose job after 10 years coincided with war service had their last civilian job recorded instead. This truncates the '10 years' and therefore underestimates the actual mobility to be expected. Professional armed forces personnel (ie, those not called up or 'volunteered') were of course coded to military occupations. Again, only men who have completed 10 years of work are included in the graphs in this section, the dates in the time series indicating year of first employment.

Fig. 10.3 Moving Averages for 5 Year Cohorts (Year of Entry)
Career Mobility from Skilled Manual First Job.



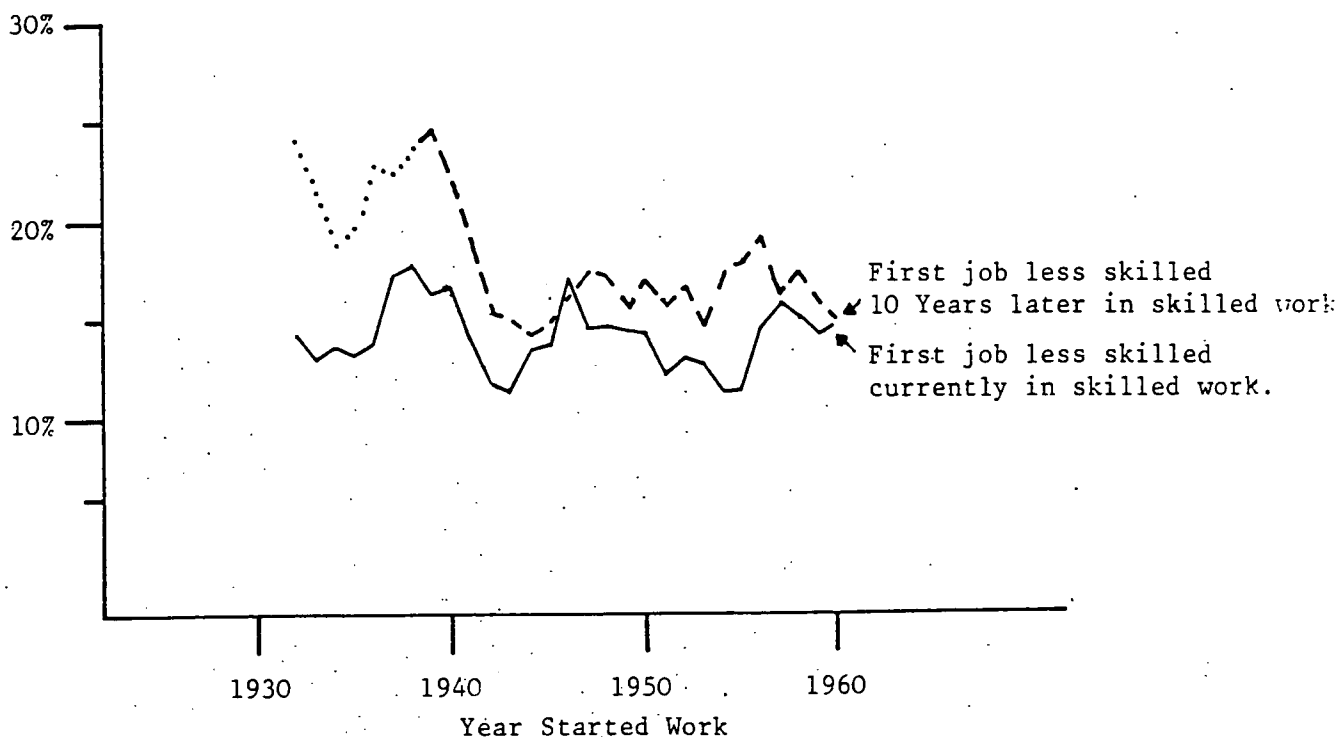
Two main impressions stand out from Fig 10.3. First, the two measures are very similar, which shows that downward mobility, if experienced, is experienced in the first 10 years of work and not much thereafter. If we are observing deskilling, it therefore effects only younger workers, which seems somewhat improbable. If we retain the deskilling explanation, we have isolated it as a problem of young men (throughout the period) which would be a new finding. A simpler explanation might be that the 'drop-out' from skilled work reflects failed apprenticeships or career changes made by young men who discover other job opportunities more to their liking.

The second conclusion to be drawn from Fig. 10.3 is that there is no marked trend in the data. The vast majority of the points plotted in both lines fall within a five or six percent band. There is

no sign of any rising trend, which is not what one would expect from the logic of Braverman's analysis of valorisation: the process of extracting increasing surplus value from labour should be an intensifying one. Interestingly, the absence of trend contrasts with general patterns of mobility, which show distinct patterns throughout the period (eg, Chapter 8).

A parallel analysis of upward mobility for men starting employment as semi- or unskilled manual workers, into skilled work is made in Fig. 10.4.

Fig 10.4 Moving Averages for 5 Year Cohorts (Year of Entry) Career Mobility from Semi or Unskilled Manual First Jobs



In this case, the upper line is the job after 10 years' work, and latest occupation is the lower line. Once again there is not much difference between the lines, although slightly more than in Fig. 10.3: the conclusion again is that most mobility is completed within the first decade of work. The fact that the lower line is the mobility to latest job suggests that some men starting in less-skilled jobs may

experience upward mobility in early life which is later followed by downward mobility, but the effect is very small. More important is the lack of any rising trend of entry by men who started without skills into skilled work: although the lines fluctuate, they hold to an average at near 15%, with only 2 or 3 percentage point variation.

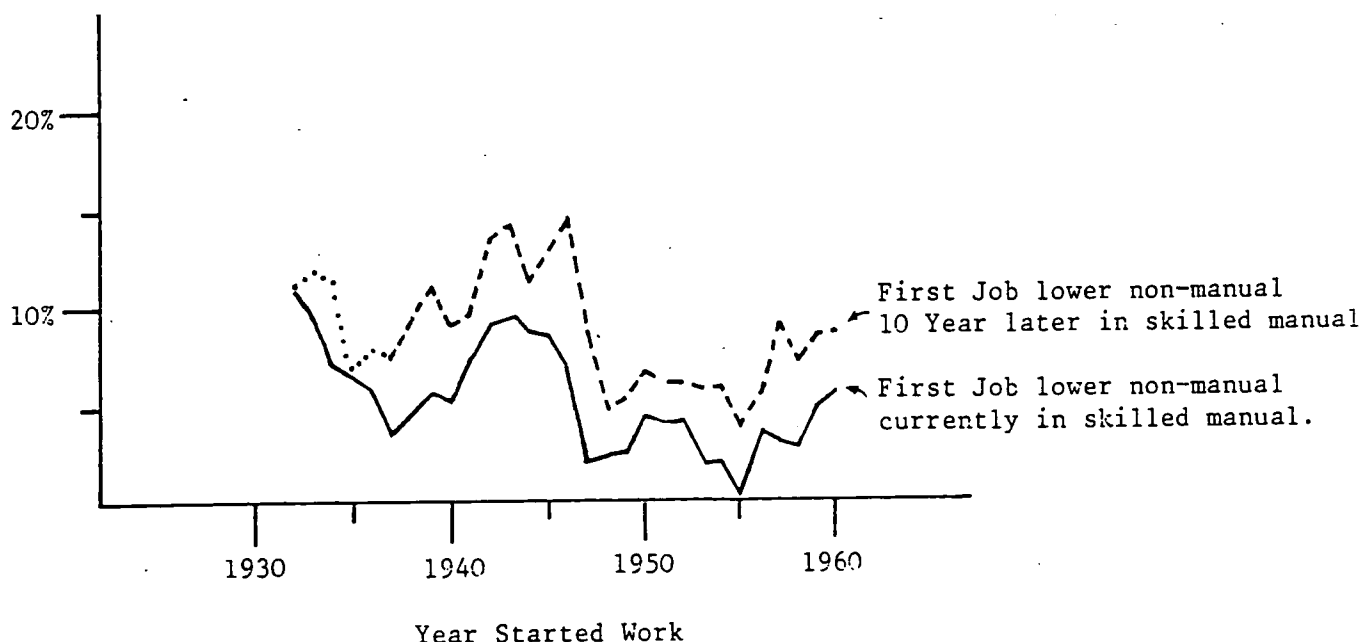
On the evidence of Figs 10.3 and 10.4, we would conclude that skilled workers are not, as a general category, being displaced into less-skilled work, nor are they being supplanted by men who have lower levels of skills. Among young men, during a period which has seen little change in these patterns, about one in four move into less-skilled work, while about one in six move in the reverse direction. In absolute terms, there is no increase in these figures, so that there are no grounds for arguing that deskilling is being accelerated among men starting work between 1930 and 1960.

Nor is there significant increase in movement after 10 years of work. If deskilling were only a continuing process (ie, not an accelerating one over the period) we would expect that older men with longer careers would be more deskilled because they had been 'at risk' for longer, and might be in precisely those older occupations most likely to be supplanted by new technologies. However, mobility between 10 year job and current job is very small indeed. Furthermore, there is little to indicate that recruitment to skilled work among young men is doing more than decline slowly, and that is largely due to sectoral shift. If skilled craft labour were being eliminated, then one would expect a more marked fall, especially as the non-manual sector was expanding and so depressing the proportion of all work which was manual. The evidence in terms of changes within manual work is contrary to the four propositions at the start of this section.

An analysis of movements at a higher level in the occupational hierarchy is complicated by the alternative models of

deskilling that one may adopt. At times, Braverman concentrates exclusively on craft labour, while at others, he deals with routine white collar work. Later contributors to the debate, such as Crompton (1981) have extended the deskilling argument to middle range and indeed arguably senior white-collar work like computer programmers, accountants and managers. There are therefore three possible outcomes for mobility. If we see the entire labour force being equally deskilled, then there should be no change in mobility. If we see deskilling at its most extreme among skilled manual workers, we would expect an increasing distance between manual and non-manual work. Third, if we argue that the lower ranges of white collar work are more susceptible to deskilling than other white collar work, we might expect higher flows between the former and manual work.

Fig. 10.5. Moving Averages for 5 Year Cohorts (Year of Entry)
Career Mobility from lower range Non-Manual First Jobs



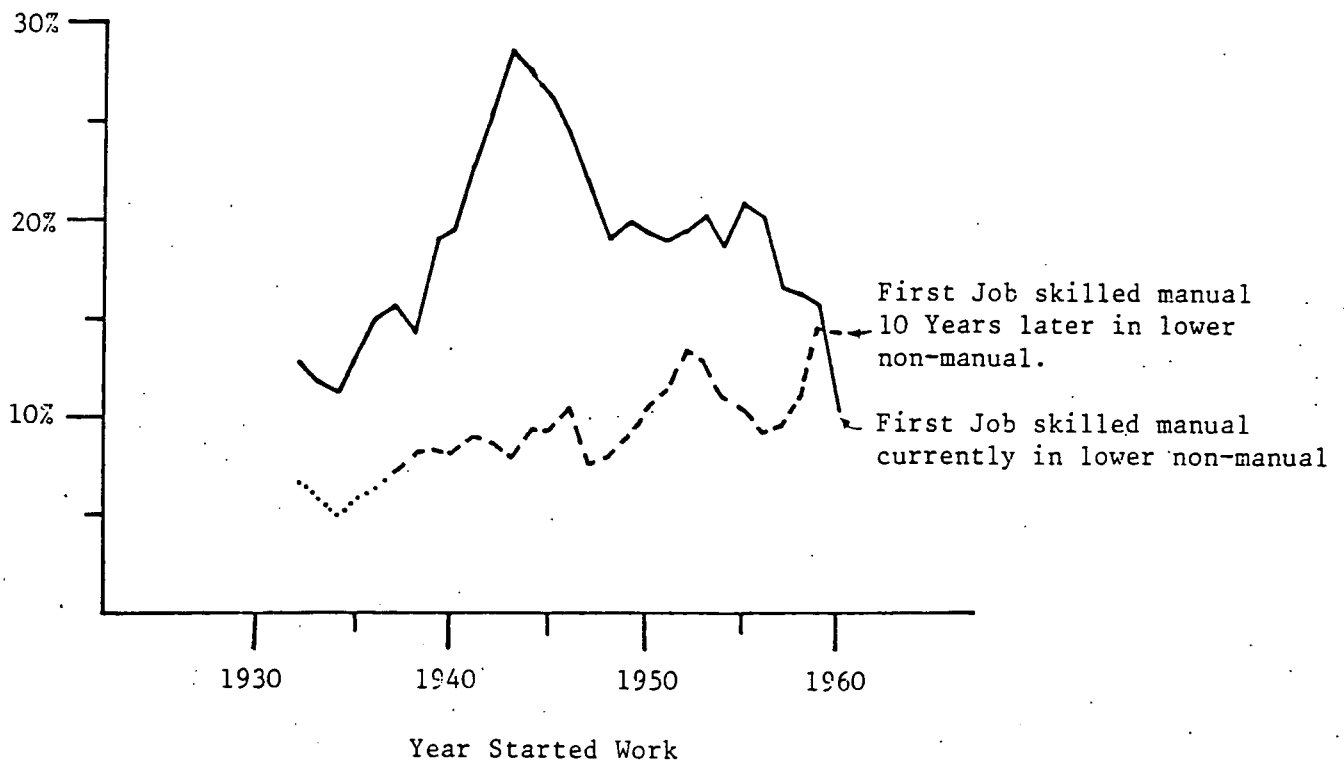
Dealing first with downward flows into skilled manual jobs from the lower sections of non-manual work.⁽¹³⁾ Fig 10.5 again shows little difference between employment after 10 years and later in the career. The transfer into non-manual work for both indicators is mainly less than 10%, except for an early career peak for men who started work during the war. There is no little evidence of any simple trend. This is indicative of a view that the most easily proletarianized portion of non-manual employment has not been deskilled relative to skilled manual labour. Either the deskilling effect is in some way contained, or the two types of work have been 'equally' deskilled so that the social distance between them remains constant.

A rather different picture emerges from an analysis of the proportions of men starting work in skilled manual employment and then moving upward. In the 1930s, between 5% and 10% of men starting in skilled manual work moved upward. For men who began work in the 1950s, the figure was between 10% and 15%. Although the short term fluctuations are considerable, there seems to be a rising trend. However, the line showing career mobility to current job displays much more movement. Its peak during the early 1940s is probably another manifestation of war-time labour substitution and its after-effects,⁽¹⁴⁾ If we 'flatten' this peak the result would be another rising trend (the last few years excepted) broadly parallel to the 10-year job line but about 10% higher, rather more than in the previous three graphs. The abrupt decline in the late 1950s is probably a

(13) The 'lower sections of non-manual' work include routine clerical work (but not shop assistants who for reasons of their Hope-Goldthorpe scale score are allocated to the 'less-skilled' category) supervisors, self-employed artisans and technicians. The graph shows percentages of men starting employment as 'lower non-manual'.

(14) Furness has commented on how dilutees were integrated into production by allocating them a very restricted part of the productive process, under a greatly expanded system of supervision by workers who under other conditions would themselves be supervised (Furness 1981).

Fig 10.6 Moving Averages for 5 Year Cohorts (Year of Entry)
 Career Mobility from Skilled Manual First Job



product of the lack of career development among younger men noted in the earlier part of this chapter, although if this is so, it is a feature of manual/non-manual movements.

Following the logic used earlier, classes are becoming more similar if there are more moves between them. One could therefore argue that lower non-manual work and skilled manual work are becoming slightly more like each other, or in other words, it is not skilled manual work that is being deskilled but rather lower non-manual work. This is not really what Braverman claimed. Nor do we need a deskilling explanation to account for the time-series. First, the up-grading of skill levels thesis and the expansion of the non-manual sector would lead one to expect the same pattern of results. Second, Stewart et al (1981) show how a substantial proportion of recruits to routine white-collar work are drawn late in their careers from skilled manual work as a result of employer policy towards long service employees. And third,

the occupational classes used in the present analysis are seen as career-related: supervisors and self-employed artisans would normally be expected to spend their early working years in manual employment. All three explanations call for high rates of mobility between skilled manual and lower non-manual occupations.

Indeed, taking the results in all four of the time series figures, a more satisfactory explanation can be found in the argument of sectoral shift used in earlier chapters. As economic activity moves from one industrial sector to another, new kinds of skills are required. Without going into great details, skilled employment has declined in Old Staples, Light Manufacturing and Basic Services, the three sectors in which it is chiefly found. However, the sharper declines have been in Old Staples and Basic Services, reflecting the decline of textiles, coal, shipbuilding and metals on the one hand, and in particular transport, communication and distribution on the other. The Old Staples can be regarded as in absolute decline whereas Basic Services arguably reflect changes in technology and organisation which require fewer workers with traditional skills.

Among the less-skilled, primary industry is a more significant factor because its labour is overwhelmingly concentrated in this type of employment and its labour force is reduced by half in the period in question. The Old Staples also show very substantial decline, but Light Manufacturing maintains a relatively stable position. Basic Services show falls throughout the period, but the New Services are a small source of such employment and changes very little.

Sectoral analysis therefore suggests that while in the case of Primary Industry and Old Staples the requirement for manual labour may be reduced by new technology, the main effect is a simple decline in the size of the sector as an employer. Basic Services remain a major employer but new technology displaces labour, while Light Manufacturing

and New Services show less sign of such changes. Thus only some parts of the economy come anywhere near to Braverman's prediction, and much of manufacturing, from which he draws most of his craft work examples, fails to conform to his expectations.

The underlying sectoral shift, together with the evidence on mobility, must be regarded as challenging the deskilling thesis, in as far as that thesis can be tested using mobility data in this way. The levels of career transfer as proportions of origin in occupations remain fairly stable (eg, Figs 10.3 and 10.4) even though the origin occupations change in size: the total net effect is to reduce transfers between skilled and less-skilled work, as the origin categories (and notably the less skilled) contract proportionately. Therefore both in terms of career movements, and in terms of recruitment patterns (Fig. 10.2) there is little sign of deskilling, and none of any accelerating trend - which would be expected if significant advantages were accruing to the employers from the degradation of labour.

It could be argued however, that with about one-quarter of all those starting skilled manual work dropping into less-skilled work, and about a sixth of those starting less skilled moving in the reverse direction, there is evidence of deskilling. It is not possible to say for certain whether this is the case, but if it is, one is left with a problem. Why is it that these adjustments take place so early in the career (see Figs. 10.3, 10.4, and 10.5)? The only case where there is noticeable late career mobility is out of skilled labour into the lower reaches of non-manual work, which include supervisory positions, technician posts and self-employment, all offering better pay and popularly rated as more desirable jobs.

Commonsense suggests that it would be older men with older skills who would be least adaptable and employable in new technologies. However, if these levels of movement are taken as evidence of

deskilling, then we have isolated the deskilling of workers as a process predominantly concentrated among the young. A simpler explanation is that employers want to recruit as large numbers of apprentices as they can (allowing for cyclical effects) because this provides cheap labour while at the same time pacifying the trade unions. When the apprenticeships are completed, some workers are discarded as they are no longer a source of cheap labour. This, together with a not-unexpected opting for different jobs by young men who 'chose wrong' on leaving school, would explain the resorting processes observed.

This absence of deskilling effect in these data is nonetheless quite compatible with certain models of deskilling. The Crompton critique has already been noted: it could be that, despite the arguments to the contrary, there really is an effect that is so contained within skilled work that it remains invisible to a structural analysis. Certainly there has been a degradation in the work tasks of many skilled workers, and minor changes in status hierarchies have resulted. However, that does not invalidate this kind of analysis, because such changes should result in mobility effects, which do not appear.

A second argument would be that work which might in the past have been done by skilled men is now done by unskilled men or by unskilled women in new processes. Again, the data presented here do not touch on such an argument. If it is true, it would be the case not that male workers were deskilled, but that work was deskilled (and of course possibly that female workers were deskilled). However, this does not result in a decline in opportunity for men: the proportion in less-skilled labour declines as we saw in Fig. 10.2, as new non-manual opportunities change the character of the labour market.

This leads to a third, and perhaps the most important point about deskilling. The nature of work itself may be degraded without

producing any significant labour market effects. As Braverman argues, reduction in autonomy and greater alienation from the product are an essential part of labour degradation. However, while in a humanistic sense, the work situation may worsen, this need not be automatically reflected in the market situation of the workers, because other market forces counter-balance any potential deterioration. This would be the case if, as we have seen, the trend of occupational transition towards non-manual labour changes the overall opportunity structure. Furthermore, the potential of trade unions to intervene against attempts to degrade market situation is considerable (see for example Friedman, 1977).

The central dynamic in such an explanation is the capacity of capital to modify itself in several different ways at once. The introduction of new technologies of production (both sociological and scientific), together with the concentration of capital and the growth of large scale enterprises, generates a fundamental shift in the kinds of labour required by modern capitalism. This 'long wave' or systemic transition (Lee, 1981, 61) takes the sting out of deskilling. There is no logical incompatibility between degradation of work tasks on the one hand, and the upgrading of labour on the other: the two processes impinge on different people at different times in the same society.

Occupational Mobility and Labour Markets

The idea of differential impact of such processes takes us into the final section of this chapter, which is concerned with labour markets. Here we are not so much interested in Scotland as a labour market (an idea which has been implicit in most of the preceding analysis), but rather in how career mobility is constrained by segmentation of employment opportunities. This was outlined in Chapter 3 above. The analysis presented is intended to be indicative of possible lines of investigation rather than exhaustive. As was

observed earlier, the SMS data do not provide an adequate coverage of blacks, women, the very young and old, or the handicapped, the groups which have typically been seen as the secondary labour force. It is however possible to examine the employment experience of those members of the sample who form the lowest skill level (class VII), and to compare their 'careers' with those of more skilled workers. This should indicate how far unskilled male manual workers are part of the segmentation effect, or in other words where the boundaries of labour market segments may be (and hence the relative scale of primary and secondary markets). Employment histories and changes of employer also provide information about the extent to which internal labour markets operate.⁽¹⁵⁾ These segments can be seen as operating in addition to the 'segments' of occupation, cohort, sector and origin already identified.

If there is a dual labour market in Scotland, there are two main requirements to be met. First, the two segments would have to be shown to be different; for example, on job turnover, unemployment, and income. Second, there would have to be very little exchange between the two segments: that is to say there would be virtually no career movement from one to the other. Without these preconditions there is no dichotomy in the labour market worth explaining.

Dealing first with the question of unemployment, Table 10.8 clearly shows the greater insecurity of unskilled employment. The share of unemployment borne by the unskilled is much greater than the group's proportion in the labour force. At the time of the interview, less than one in three of those found to be unemployed were from the non-manual sector, which makes up about 46% of the population. Among the skilled and semi-skilled, the proportions were about equal. But

(15) Again, it should be stressed that the level of analysis is a very crude one, because the original design of the SMS was not intended to cope with labour market models.

Table 10.8: Relative Enemployment Rates*

	% of those unemployed	% of work- force
Non-Manual	28.9	45.9
Skilled and semi-skilled	41.6	40.3
Unskilled manual	29.5	14.2
	<hr/>	<hr/>
	100.0	100.0
	n = 346	n = 4060

* Not registered unemployed, but those saying they were not working in reply to a question about earnings.

the unskilled had 29.5% of the unemployed, despite being only 14.2% of the workforce. To put it another way, the unskilled sector had more of its members out of work than the non-manual sector, which is three times bigger. Almost one in five of the unskilled men in the sample were out of a job.

However, this insecurity is not so clearly reflected in the number of jobs making up the employment histories of unskilled workers. On average, an unskilled worker had held 6.7 jobs, compared with 6.2 for other manual workers and 4.9 for non-manual jobs. For cases that were second generation unskilled, the average was a little higher, at 7.1 jobs. At the same time, some of the unskilled did show up disproportionately among cases with very high numbers of jobs. 15% had

more than 10 jobs, compared with 12% and 8% for other manual and non-manual workers. And 8% had more than 15 jobs, compared with about half that proportion for the other classes. These findings support the usual view that job turnover is higher for unskilled workers, but not to the extent that one might have expected. Perhaps it is only the female and youth part of the sector that shows the sharper contrast with non-manual adult males.

Turning to levels of income, the Scottish data match the information generally available through official statistical reports, such as the New Earning Survey. However, the SMS survey was a protracted one, undertaken during a period of rapid inflation, so there are some obvious draw-backs about discussing its income data. The absolute values are already largely irrelevant, while even the relative position can only be a very crude indicator of the state of earnings over one part of a period of considerable change.

The ratio of mean gross earnings for unskilled, skilled and non-manual workers was 1:1.14:1.36. In 1975 pounds, that was a difference of about £7 per week between unskilled and other manual workers, and £18 per week between the unskilled and average non-manual worker. These are, of course, only average earnings, and there was some overlap between the highest incomes in one category and the lowest incomes in the next.

Perhaps the best way of thinking about the income pattern is to look at the cumulative percentages in Table 10.9. At the lower end of the range, twice as many unskilled workers (17.1%) were earning less than £38 as in the other categories. Although the difference is a little less over the next £10.00 interval, by the middle range of up to £58, the unskilled/non-manual ratio is still 2 to 1. 6 in 10 non-manuals and 4 in 10 skilled workers were earning more

Table 10.9: Cumulative Percentages for Gross Weekly Earnings,
September 1975

	<u>£38 or less</u>	<u>£48 or less</u>	<u>£58 or less</u>	<u>£77 or less</u>	<u>£78 or more</u>	<u>n</u>
Non-Manual	8.0	20.0	38.2	71.2	100.0	1863
Skilled and semi-skilled	8.7	30.7	60.3	88.0	100.0	1637
Unskilled manual	17.1	33.2	78.9	97.0	100.0	560

than £58. At the top of the range, only 3% of unskilled workers were making over £77, compared with 12% of skilled workers and 28.8% of the non-manual class. Unskilled work is therefore not synonymous with low pay, but it does carry a much higher chance of a low wage. Even within the unskilled category, some are more disadvantaged than others.

On the questions of unemployment, job turnover and earnings, it would therefore seem that the unskilled are relatively disadvantaged, but it remains unclear whether their world of work is fundamentally different from the other sector or sectors. The SMS evidence is at best a weak support for the predicted characteristics of a secondary sector. If attention is focussed on the other manual workers as shown in Tables 10.8 and 10.9, one might equally well argue for a triadic labour market model.

This leaves the second major prerequisite of the dual labour market thesis, the requirement that the two sectors are relatively closed, so that movement from one to the other is not common. We can examine this by seeing if people change their employment from one sector to another during their careers, for example between their first and last jobs. The results of this analysis are given in Table 10.10.

Table 10.10: Mobility between First and Present Job for Adult Males born 1909-1948

		Respondent's Job Now			Totals
		Non-Manual	Skilled and semi-skilled	Unskilled Manual	
Respondent's First Job	Non-Manual	84.5 (45.6)	10.7 (6.9)	4.8 (8.3)	1039 (25.1)
	Skilled and Semi-skilled	34.9 (46.1)	49.5 (77.9)	15.6 (65.3)	2540 (61.3)
	Unskilled	28.2 (8.3)	43.4 (15.2)	28.4 (26.4)	564 (13.6)
	TOTALS	N = 1924 (46.4)	N = 1613 (38.9)	N = 606 (14.6)	4143 (100)

Most strikingly, the third row of this table shows that, of those who started work as unskilled manual workers, 28.2% are now non-manual workers and 43.6% are doing manual work requiring some degree of skill. Only 28.4 are still in the same sector as they started, so that nearly 3 in every 4 have moved out of the unskilled manual sector during their careers. Again, as the right hand column shows, those presently in unskilled employment come from a range of occupational starting points. Nearly two-thirds are from the skilled and semi-skilled category and only just one in a quarter started their working lives as unskilled workers. Part of this exchange may be an artefact of the categorisation of jobs to 'semi-skilled' as opposed to 'unskilled', but the levels of exchange are so high that it seems implausible to explain them away as mere products of occupational classification.

These results do not support the thesis of a dual labour market, because such large numbers of workers are moving between the major sectors during their working lives, and therefore are selling their labour in what are supposed to be two exclusive markets. The only area where some degree of closure is evident is in the top row, which shows that 84.5% of men starting in non-manual work were still doing the same type of work at the time of interview. But even here, more men move into non-manual work than start in it, so the non-manual sector cannot be regarded as 'closed'. What is true, however, is that the movements are chiefly in one direction: into the non-manual sector but not out of it.

Taken overall, unskilled manual workers do not seem to constitute a secondary labour force, confined to some identifiable separate labour market. Nor is it possible to identify any sub-sectors using the levels of analysis that have sufficed to differentiate findings elsewhere in this study. Controlling for age (ie, using the four cohorts) does not substantially alter the inter-group differences in rates of unemployment, number of jobs or income, although it does of course have an effect on the rates themselves.

However, the five industrial sectors do demonstrate some differences in number of previous jobs held by their work force (past unemployment cannot be compared, and the quality of the income data does not warrant detailed useage).

Primary Industry tends to have lower rates of job turnover, with one third having had fewer than three jobs. New Services are also relatively stable. One presumably reflects the pattern of family, small business, and local employment in agriculture and fishing, while the other suggests the greater stability and continuity of public and large commercial institutions. In addition it may arise from the

Table 10.11: Number of Previous Jobs by Current Industrial Sector

Industrial Sector	Number of Previous Jobs					Totals
	1 and 2	3 and 4	5 and 6	7 - 10	> 10	
Primary	37.4	31.2	12.9	12.7	5.8	7.4
Old Staples	12.2	41.9	23.8	15.9	6.2	12.8
Light Manuf.	11.6	38.2	24.4	16.8	9.0	24.6
Basic Servs.	12.4	38.0	23.7	15.8	10.1	41.5
New Services	25.3	40.2	18.1	12.7	3.7	13.6
All	15.8	38.3	22.4	15.3	8.2	4373

specificity of technical knowledge skills which discourage job transfer, and also the relative youth of employees in this sector. It is interesting that the conventional notion of a career does not appear to be manifested in these figures for the New Services.

While each sector can logically have primary and secondary labour markets within it, the association of low turnover and the service sector, and higher turnover and Light Manufacturing - two expanding sectors in the 1960s - perhaps helps to explain why the idea of segmented labour markets may have become popular when it did. The underlying structure of sectoral shift has changed the circumstances of employment in the direction of segmentation. Certainly the association between industry and labour market has been recognised in the literature,⁽¹⁶⁾ although the relative size of sectors does not seem to have attracted attention.

(16) For example, Loveridge and Mok have suggested that oil, chemicals, public utilities and metals comprise a primary segment, while textiles, leather goods, glassware and foods are a secondary sector. This seems a relatively unlikely grouping as far as male employment evidence goes: although the first does have 14.4% unskilled manual workers, as against 19.3%, this is not very different from the residual rate of 13.9%.

A second dimension of labour market theory on which the same data-set can shed some interesting if indirect light, is the idea of the internal labour market. While nothing can be said about whether employees have changed employers, we can tell if they have changed industrial sectors, which measure can be taken as a crude indicator of employer change. If there is an internal labour market system, then the better jobs go to men already in the company who by definition are already in the same sector. Only menial jobs would be filled from outside, by men either from in or outside of the sector. Menial jobs, or those lower in the occupational hierarchy should therefore show more sign of inter-sector changes of employment. In general this is so, with the non-manual and skilled occupational classes having around three-quarters of its current manpower drawn from earlier jobs in the same sector, but only 60% for class VII. In fact, the routine non-manual class is the exception to high sectoral recruitment among the non-manual classes: it too falls below 60%.⁽¹⁷⁾ Even so compared with flows of mobility between class VII and other classes (three-quarters leaving the former) movement between sectors is low, at about one-third (and possibly falling). Sectors may therefore constitute 'better' market segments than skill levels.

One final piece of information about career mobility concerns the way respondents found their current jobs. Offered a choice of 'ways in which the job was found' (see Appendix II) 15% said 'promotion' and a further 5% gave some other reason connected with a move within their employing organisation. Together, these can be seen as reflecting an internal labour market: the figure of 20% being somewhat lower than the unweighted average of 66% for same industry

(17) As might be expected, older men are more likely to have changed sector: 42% in the oldest cohort, compared with 29% and 28% for the two youngest cohorts. This is not simply a matter of chronological exposure to risk, but reflects the decline of primary and old staples sectors as sources of employment, which displaced some of its labour force.

sector. The figure of 20% does not vary much by cohort, except that the men who started work in the 1960s are three or four percentage points lower on the promotion category (but slightly higher on other employer reasons).

Promotion was notably low in Primary Industry (8%) and high in the New Services (21%), while at 11% only Old Staples had much variation from the norm for 'other internal ways'. In class terms, manual occupations all score low on promotion, while class I in particular scores high with 2 in 5 of its members promoted; twice the rate for other non-manuals and eight times that for the manuals. These figures may be taken as suggesting to a small degree, an internal labour market, but there is no sign of it expanding among younger workers, and it does not seem to be associated with newer manufacturing or anything other than the upper parts of the New Services. Within the limits of the analysis possible here, the conclusion must be an agnostic one.

Conclusion

Career mobility is a very important part of total mobility. Although in this chapter it has been presented in terms of other arguments, which may have given an impression that as a process in its own right it was less significant, that is not the case. On average, there is as much mobility in the course of careers as there is in inter-generational terms to first job. Unfortunately because of variable career length, it is more difficult to be precise about this, or to talk about trends.

What has been shown is that, by and large, the picture of mobility in terms of changes and sectors is similar whatever the point in career that is under analysis. This is important because it justifies the attention paid earlier to first job trends as mobility indicators. The level of mobility changes as careers develop, but the

structure holds true. If anything is changing, it is the increase in access, particularly by the direct route, to non-manual employment, which shows up as increasingly high rates of non-manual self-recruitment and upward mobility in early career. Younger men in the non-manual class are twice as likely to have never directly experienced the manual working class (as family or own employment) as older men. The sons of non-manual workers not only have a better chance of getting non-manual jobs, but the analysis of career mobility shows that they get them earlier in their careers as well.

However, this is not yet accompanied by a decrease in indirect access. Whether educated or not, the flows into non-manual jobs after initial employment remain high, although the youthfulness of the youngest cohort makes this a tentative conclusion. There is no sign of a counter-balance effect.

Career mobility has also been used to show that the deskilling argument has not produced the labour substitution that would be expected following Braverman's thesis. To the extent that there is a 'deskilling', it can be explained by sectoral shift (hardly a managerial strategy) and the re-sorting of young workers in their early careers - which equally needs no elaborate theory to explain it. We have also seen that, in so far as unskilled male workers can be regarded as part of a secondary labour force, the evidence for a dual labour market is rather thin. It must be conceded that a failure to locate segmentation may simply reflect a failure of operationalisation, but the author's view is that a substantial phenomenon should be sufficiently robust to survive the methods used in this chapter. Certainly a sector effect was visible on these terms, so that rather than abandoning segmented labour market models it is necessary to argue for modification towards a sectoral rather than a simple skill level approach. In this chapter, as in earlier ones, we find that a model of

segmentation - whether of labour markets or mobility - based on skill or class alone is less satisfactory than one combining several dimensions of segmentation, most notably the industrial sector.

CHAPTER ELEVEN

MOBILITY IN SCOTLAND

'We have, very largely, a mobile society, and we have today a society open to talent ... we're a much more mobile society for example than the United States. We talk a lot about class in British Society, but I think its significance, socially, is very small' (Norman St. John Stevas, BBC radio interview, 6.1.80).

Among the several reasons why Mr. St. John Stevas' assessment is inaccurate is that whatever may be the situation now, the effects of mobility take a generation to work their way through the whole of society. Even if education were by a stroke of the pen to be reformed, or access to first job miraculously to cease to be associated with family of origin, it would still take half a century before the workforce was purged of people who had already begun their careers under less equitable circumstances. Mobility research is often criticised for being essentially concerned with past processes, but these processes - family origins, education systems, structures of occupational opportunity - are the causes of present phenomena. The members of an occupational class are not just its newest recruits: men aged 65, whose lives have been shaped by events and conditions which no longer apply, are equally members of that class. Class formation is not only a contemporary but also a historical process.

Occupations and historical change

This study has given the historical dimension particular prominence, in an attempt to locate mobility in a specific occupational context.

In the first place, the wider economic history of Scotland explains the employment opportunities for men currently living in Scotland. Industries and employers did not just happen to exist in Scotland in the 1930's when the respondents began work: they were there (as were the respondents' families) as a result of decades - indeed centuries - of development. The bringing of Scotland into the Union and its consequent opening up of English and imperial markets, the early date of the industrial revolution, the availability of first English and later indigenous capital to exploit the geographical location and physical resources of the country are all necessary factors in launching Scotland on its unique trajectory to modernism. The three-fold commitment of capital, the labour force and the structure of social institutions to textiles and a highly interdependent group of other old staples need not in itself have restricted the Scottish economy to that original trajectory after the First World War. But the combination of a conservative tradition of capital export on the part of the capitalist class, a weak home consumer market due to low wage levels, a reliance on declining export markets which previously had seen little competition, and the relative physical isolation of the country delayed the introduction of new technology and new products until after the Second World War. As a result, the type of employment available was decidedly less 'modern' than in England as a whole until relatively recent years. It is within this framework of occupational opportunities that the men in the Scottish Mobility Study began their careers.

The framework can be thought of in several ways. In occupational terms, it is one with more manual and fewer non-manual jobs. In organizational terms, it is an economy increasingly influenced by branch plants of multi-national companies, and by state policies of regional investment. In industrial terms, it is a society which in 1930 was distinctive but which has since become much more similar to England and Wales: especially after 1960, the expansion of employment in service industry and the contraction of the old staples have confirmed this. However, although Scotland can be thought of as a modern, urban, industrial society with similarities to England, it retains a separate culture. Despite earlier emigration and the ease of modern communications, Scottish social institutions and life retain a unique character, enabling us to think of Scotland as a separate labour market in which a particular set of occupations have been available to the Scots, even if the set of occupations has changed over the years in response to wider economic forces.

The re-processed data from successive censuses show the considerable variety of occupational changes that have taken place. While it is true that, at a very general level, white collar and highly skilled occupations have expanded, there is ample indication of varying rates of expansion, short-term counter-trends, and dissimilar profiles of change for socio-economic groups at different points in the occupational hierarchy.

This should not be surprising in the light of the chequered development of the Scottish economy, but in a sense it is, not least because such detailed information was previously unavailable for Scotland. At the same time, although the empirical analysis was primarily carried out to provide a socio-graphic grounding for the analysis of mobility, it also provided a means of criticising several accounts of modernization that had made assertive statements about mobility rates.

Taking the time-series as sociography, we now have information from an alternative source to the SMS sample, which demonstrates the evolution of employment patterns. In passing, it is perhaps worth noting that the female employment patterns show differences of level, direction of change, and rate of change for the same socio-economic group and time-span (e.g. SEG 5 over the 50 years, SEGs 10 and 11 between 1931 and 1951, and SEG 9 throughout, respectively). This is further support for treating male employment separately from female, and regarding gender as a major axis of segmentation in the labour market. The time-series does at least provide new data on female employment even if the study as a whole cannot deal with both genders.

While the basis of the time-series is not identical to the sample cohort analysis (because the latter deals with only men aged 20-64, mainly in first jobs, and uses moving averages) the pictures that emerge are compatible. The census data show a small expansion of non-manual employment after 1931, with a faster expansion after 1951 and in particular between 1961 and 1971 (Figs 5.1 and 5.3). The sample data on men entering work for the first time show how this expansion accelerated and then fell back during and immediately after the Second World War (Fig. 8.1). The two sources therefore complement each other, one offering the broader evidence of a complete population survey, the other the greater detail for a sub-sample covering some of the gaps between census points. Both indicate circumstances in which an expanding middle class offered chances for upward mobility.

The time-series also provided grounds for a critique of modernization theory. In the first place, the complexity of the changes is greater than writers such as Moore allow, not least the decline in proportions of non-manual work due to the Depression, and the inconsistency in rates of increase. The most highly-skilled socio-economic groups do not respond as predicted because the semi-professions show the greatest growth, while the skilled manual group and its neighbouring groups in the middle of the occupational hierarchy fail to expand into the requisite diamond-shaped structure. The lowest-skilled groups did not contract as predicted. The exodus from primary industry was at one point reversed (1921 to 1931) and worked differentially on the farming socio-economic groups.

At the heart of the failure of modernization theory to cope with these trends is its failure to take account of how occupations are connected to industries whose economic performance must be highly variable. This is shown very clearly by the shift/share analysis of the 1960's, where the SEGs were shown to both lose and gain in numbers (albeit with net effects as broadly predicted) according to the expansion or contraction of industrial sectors. Again, in broad terms, older industries contribute losses or little gain to non-manual SEGs, but a more detailed level of analysis is required to account accurately for what has happened. In some cases, technology in a sector seems to change, while in others, a sector expands rather than innovates: the source of growth in non-manual numbers in each sector is different. It therefore follows that the Scottish experience cannot be identical to that of England and Wales: the earlier historical review showing Scotland's relatively subordinate economic status helps to explain the lower levels of non-manual employment north of the border.

Occupations and the class structure

This concern with non-manual employment and the details of its components is not just a desire for historical accuracy. It is the

result of a careful reading of the sociological literature which reveals a confusion of ideas about how occupations have changed. At the extremes, there are the rival views of skill enhancement and managerial revolution, versus degradation and proletarianisation. At a lower level there is a remarkable lack of agreement about the phenomena to be explained: commentators contrive to disagree by concentrating on different sections of the non-manual class, often without apparently realising the imprecision of their definitions or the lack of specificity in their accounts. This is particularly true of debates about the upper middle, or professional/managerial class, as for example the discussion of Miller and Miliband's comments on elite mobility demonstrated. The empirical analysis has therefore attempted to bring out differences and similarities within the non-manual sector as one way of establishing the need for greater clarity in the conceptualisation of the new middle classes.

Perhaps the most significant case of misunderstanding the new middle classes and the processes which create them is Glass's attempt to rationalise the lack of an occupational transition effect in his mobility data. This, together with a failure to realise both how differential fertility and the interaction of cohorts and trends distort mobility tables, helped to generate a false picture of excessively restricted mobility in Britain (and all the more so in Scotland). The critique of Glass's work follows as a logical extension of documenting real historical changes in employment in the preceding chapters. Its conclusion - that twenty years of British sociology of mobility and stratification have been misdirected - marks a fundamental break with earlier work. In one sense the remainder of the study can be seen as an attempt to fill the gap that the critique has created.

On the other hand it would not be completely true to present this study as a dialogue with Glass. Whereas Glass left most of his

ideas about stratification and the place of the middle class unstated, the present study has attempted to establish points of reference in current theoretical accounts of the new middle classes. The idea of occupational transition itself is of course drawn from discussions about how industrialisation should be modelled, while it is no coincidence that the aspects of Scottish history selected for review in Chapter 4 were capital, technology and employment, since these are central to such models. Although occupation and mobility are our prime focus, the causes of the creation of new occupations extend our explanation. Both for the immediate needs of this study, and in general, a fuller account of non-manual employment is required if mobility is to be properly grounded in contemporary arguments about economic processes and stratification. Of course, it is the upper reaches of the new middle classes that have excited most interest, whether it is in the recent debates among marxists (Poulantzas, Hunt, Wright etc), or in the more optimistic writings of the 'technological' school (Bell, Galbraith etc). The early chapters devoted some effort to identifying differences of emphasis within these accounts, as part of the study's attempt to explain mobility in occupational terms. Neither the theory of capitalist society nor the theory of industrial society provided very satisfactory answers on their own, so that a little eclectic borrowing seemed to be in order.

Thus marxist sociology furnishes four basic keys to understanding contemporary mobility. Labour is free to be mobile within a structure of production which it does not itself control. Technology, as one aspect of the means of production, is not purely technical or neutral, but has both surplus value extraction and control functions. The effective operation and reproduction of monopoly capital requires an extensive army of commercial, state and ideological functionaries who exist outside of direct production. And finally, the emergence of a managerial class of technologists or functionaries is not to be confused with the continued existence of a small capitalist class

above the new middle classes, or with the continued exploitation and disadvantage of successive generations of manual workers.

On the other hand, the idea of class struggle, of an active and self-conscious capitalist class, of the distinction between productive and non-productive labour, or of the essential unimportance of social mobility seem less fruitful ideas for comprehending contemporary conditions. In general, Marx's writings have failed to account for the scale of non-manual growth, the significant social fluidity that this would bring about, or the basis for alternative consciousness among the new middle classes that this might provide. Marx's inheritors have largely failed to recognise the potential for explaining modern society that does lie in his work on structural change, presumably because they have wished to cling to the notion of class opposition and the ultimate triumph of proletarian revolution. Much of their debate is concerned with the precise role in production that the new middle classes play, because it is this which will define class position and boundaries. From the point of view of an empirical study of mobility, there seems to be a lack of interest in the actual character of the new middle classes, or in the recent conditions which have brought them into existence.

The theory of industry society, if nothing else, has an explanation of why there are new middle classes. The driving force of technology and the need for specialised knowledge impose a logic of industrialism on the occupational structure. This manifests itself in occupational transition and the sectoral shift of industry. The actual mechanisms of this are poorly articulated, and the deus ex machina of technology is apparently impervious to profit or economic performance, but the theory does at least offer an explanation of why the new middle classes exist in their present form. Although the present study has challenged some of the specific propositions arising from this approach (e.g. on occupational transition) the centrality of

occupation and sectoral shift to the present study is obvious. Even where the eventual analysis is less than complete - such as that concerning labour markets - the theory of industrial society reinforces the occupational emphasis in the study's approach to mobility.

At the risk of over-simplifying a very considerable body of work, the two theoretical traditions can be thought of as setting two questions. First, how much mobility is there in contemporary society? Marxists generally would say little of any significance, while writers such as Moore explicitly say that there is an increasing amount. The second question follows from the first, namely what difference does mobility make to the class structure, in particular to the character of the new middle classes? Again, the marxists tend to answer in the negative, while those writers like Touraine or Parkin who have been more concerned with class under the conditions of industrial society, see the recruitment process as one of the main features of class formation.

How much mobility?

The question of how much mobility there is in contemporary society is doubly important here, because there has previously been no adequate study of Scotland, and we have also shown that Glass's results are unreliable. There are a number of answers to this question, but on the whole they tend to point towards relatively high levels of social fluidity. Gross intergenerational upward mobility rates (to present job) of 42% for 7 classes and 23% for the manual/non-manual classes represent substantial shifts. Long range upward mobility accounts for 1 in 3 of the present members of the upper middle class. Manual/non-manual mobility is present both at first employment and later in the career.

Against this one can cite the outflow rates. Compared with the sons of the middle classes, manual workers' sons were four times more likely to become manual workers, or relatively twice as likely, correcting for the numbers with the two origins. Only 1 in 7 upper middle class sons were in manual employment at the time of the

interview. And the evidence from studies of elites shows very different patterns of recruitment from those presented for other parts of the occupational structure.

Goldthorpe's version of mobility in England and Wales places more weight on the latter type of findings. By disaggregating mobility into relative and absolute rates, and by concentrating on mobility into and out of the service class, his account tends to emphasise the lack of movement. In contrast, the present study's focus on change and occupational transition has led to a greater use of gross mobility and inflow rates, probably with the result that a more balanced view of the amount of total mobility has emerged.

Both the Nuffield and the Aberdeen studies do point to the failure of conventional models to describe current mobility flows. Long-range upward mobility in particular provides grounds for rejecting the ideas of a threshold, a buffer-zone, or progressive closure. The notion of a safety net or more technologically, a semi-permeable membrane, might be better, if still dubious, metaphors.

It is more pertinent to concentrate on the overall levels of social fluidity. Given that a third of the men born into the working class have entered non-manual work, and by extrapolation, that a further one third of those remaining in manual work may themselves have sons who have become upwardly mobile, public consciousness of 'opportunity' is likely to be high because so many families have members who have experienced upward mobility. Individuals may remain in one class, but many of their closest kin have not. This suggests that continued inequalities may be more tolerable, while at the same time the existing order can be legitimated because, if 'there is so much of it about', mobility must appear to be achievable by anyone of any ability. It does not matter whether sociologists see mobility as structural, forced, absolute or relative, the experience of it is the same. A shift from one of the seven classes to its neighbour may be a small change in

circumstances, but these small changes combine with long range movements to create a popular impression of an open society.

It also provides a clue to the relative lack of a coherent upper middle class culture in modern Britain. Despite increasing signs of self-recruitment, sons of middle class families are changing occupational class (so 'exporting' their culture) while recruits from manual working class families are moving in ('importing' to some degree their childhood socialization). Furthermore, the amount of inflow is greatest in those occupational and SEG classes which have expanded, while it is comparatively low in contracting classes. That is to say, not only does occupational transition help to explain mobility rates, but it also points to the fact that newly-created classes - with therefore a less established class culture - are also those with most new recruits and so least likely to develop a coherent culture in the short run. It would however be unwise to assume that class formation in terms of consciousness can be adequately subsumed under intergenerational mobility and family socialization: selection mechanisms and re-socialization are also very important and require further study.

It is also essential to balance overall fluidity and the general increase in opportunity with more detailed consideration of trends. Two features stand out: the effect of the Second World War and its aftermath, and the more recent pattern of the 1960's. On the evidence of first job entrants (and as we subsequently saw, there is little in later career to make us distrust first job mobility as a guide), the war severely disrupted recruitment, promoting the chances of the war period entrants, and demoting those who came after them in the late 1940's. The effects of these changes may well have been hidden in earlier studies using fixed birth-year cohorts, which would 'net out' the increase and decrease. However, it is the stagnation of mobility chances during a period of non-manual expansion in the 1960's that is the more significant finding, because if it continues into the 1970's

a major new direction has emerged in Scottish (British ?) society. When this is added to recent speculation that monetarist policies must reduce the creation of new non-manual employment, the future mobility chances of those born into the working class looks bleak. This is also an important finding for the theory of industrial society, because it goes against predictions of continued and increasing mobility in keeping with an expanding non-manual class.

The explanation for this is essentially a refinement of the sectoral shift model. The analysis by industrial sector showed clearly different profiles, both of proportions of non-manual opportunities, rates of change in these, and in flows in mobility to them. Indeed the variety of differences makes any simple judgement or even sophisticated statistical analysis very difficult. While at one level the supply/demand/mobility relationship can be represented as in Fig 8.1, at a more detailed level the picture begins to blur. Conventional accounts which treat mobility purely at a national level are dealing with the outturn of several contradictory processes. What the sector breakdown helps to show is that even if one is narrowly interested in class mobility, the sources and characteristics of mobility - and therefore class formation - are subject to considerable short term variation. The newcomer to the non-manual class via the Old Staples sector in 1950 does not necessarily share much common experience with his opposite number in the New Services in the 1960's.

Of course, the trend analysis also shows that the non-manual class is not a single uniform sector of the labour market; the profiles of the component occupational classes are too dissimilar. The mobility process does not operate as a simple unified system in which opportunity and recruitment to one class directly results in substitution of type of occupation or access in another part of the class: the real world of employing organizations, and employees in career paths cannot operate in such a neat fashion. This is seen as being particularly relevant to

class III, which it was argued represents a more concrete step up for manual workers than most other non-manual classes. Even for first jobs, it was the largest class until 1945, (and remains one of the largest classes) dominating the 'war effect'. Statements about mobility which do not allow for this group (e.g. those relating mobility to the service class or dealing with the professional/managerial class to the exclusion of others) are clearly inadequate. Its size relative to classes I and II over the period and the exchange of personnel between them are also incompatible with Parkin's buffer-zone thesis.

While the degree of variation and the number of rival processes is considerable, it would be wrong to ignore the several broad patterns that do emerge. We have already remarked on the war effect and the 1960's: there is also the slow expansion of the 1930's, despite the Depression, and the period after post-war reconstruction when for a decade the old basic picture of expansion and mobility held good. Despite these fluctuations, there are similarities in the profiles of the non-manual occupational classes, regardless of sector; class IV decreases and class I increases, while basic Services apart, class II increases and class III decreases slightly. Again, mobility towards the end of the period shows no further growth in all four of these classes in all sectors: this is true for 18 out of the 20 combinations of class and sector. And as chapter 9 showed there is a poor association of education with access to non-manual work, and a generally uniform pattern of career mobility following first job (Chapter 10).

It is necessary to retain both a disaggregationalist and an aggregationalist perspective. Whatever the subsidiary causes, the overall results are important, while the overall results can best be explained by looking more closely at the detail. The use of the moving averages for example makes it possible to tease out part of this size/mobility relationship. First, it must be stressed that expansion and contraction of the occupational classes does not explain all change

in mobility rates: for example when classes III and IV expanded in the 1930's, mobility to them increased, but not to class II when it expanded in the 1960's. On the other hand, whenever there was contraction this was associated with less mobility (the former two classes in the late 1940's and 1960's). Second, the changing size of the industrial sectors is not the key variable; it is the changing relative size of the non-manual parts of the sectors that is crucial. Light Industry and New Services become bigger employers, with expanding non-manual sectors, but stable levels of recruitment from the manual class. Old Staples and Basic Services contracted despite having more non-manual jobs. The new jobs created are those which have always offered comparatively poorer chances of mobility.

In this context, the 'rise' of the New Services is most significant. This sector has always been a large one in terms of its non-manual composition, and one which has grown to comprise more than half of all the non-manual jobs reported in the sample, and almost half of all mobility. This would not be immediately apparent from its total employment: at the start of the time series, its share of total employment: i.e. manual and non-manual was less than 16%, and even at its peak barely reached 30%. Its numerical dominance in the non-manual sector therefore represents both a focussing of the universal or total change onto one key part, and also the advantage of seeing how the several parts react differently to economic and technological constraints.

Much the same can be said for the upper middle class, which was the subject of our second baseline questions above, i.e. what difference does this evidence of mobility make to the character of the upper middle class and its important place in the class structure. In part this has been answered by the comments about general effects and by the specific comments on class I. It is nevertheless useful to re-consider this information.

that matter, a means of moving upward (Tables 9.5, 9.7 and 9.8). To put it another way, the reasoning is correct but the evidence previously available was inadequate, so that explanations of why the upper middle class has come into being in fact help to explain precisely why men in professional and managerial occupations fail as yet to comprise a significant force.

This may also help to explain why debates in the marxist literature have struggled to locate this class and to agree on its true character. The phenomenon itself is lacking a distinctive identity, although in due course one may emerge if the 1960's trends continue. At present it is not part of the capitalist class, but equally it seems unrealistic, despite its heavy upward recruitment, to treat it simply as part of the proletariat.

The upper middle class, much as the whole of the non-manual class, began to take on significant form in the 1960's largely through the growth of the New Services. The same period also marks the beginnings of substantial credentialism, but in both cases it is important to remember that one is still talking about beginnings: new processes take time to work their way through the whole age range of the population. Giddens and Parkin may be right in identifying the commencement of the new phenomena, but as yet the market capacity to offer specialised knowledge skills does not provide the basis for a closed pattern of mobility. It follows that, compared with the possession of property or manual labour power, the basis for the third of Giddens' 3 core classes is still underdeveloped. His overestimation of the importance of specialised knowledge tied to mobility closure is again attributable to previous failures to conceptualise mobility as the outcome of complex, long-term sectoral and occupational shifts. It might be better to look to the functional roles of the upper middle class for the basis of class formation, rather than the market situation.

A slightly different conception of class would be to regard

The upper middle class

We know that as it presently stands, the lieutenant class is not successful (at 23%) in maneuvering its offspring into class I employment, despite high levels of education both in terms of privileged schooling (62%) and high qualifications (57%). Its offspring may escape manual work (86%) but that is not the same as controlling the access of the next generation to prime positions in society. Only in the 1960's does competition from the manual working class ease off a little, while the class as it stands shows little similarity in both background and education to the elites reported in other British studies.

We can therefore state with some confidence that the lieutenant class does not side with the elite or support the capitalist system because it shares social characteristics with the elite or capitalist class. Nor does it represent a clear cut, well-established class in terms of protecting its inter-generational position. Indeed its failure to develop as a class with a separate identity may be a product of its general recency as a phenomenon and the much greater recency of its incoming personnel as members of the class. Such a fragmented category is hardly likely to constitute a challenge to an established elite.

The formation of the upper middle class may therefore be the reverse of what commentators such as Parkin and Giddens have implied. That is to say, Giddens may be absolutely right when he identifies shared backgrounds and chances of mobility as key parts of a class's formation, but he is incorrect in thinking that the upper middle class have succeeded in limiting entry to their ranks (he was after all assuming no long range mobility). Parkin's concern with credentialism and the downward mobility of the less scholastic of the upper middle class's sons is also half right: what he overestimates is the extent to which qualifications offer protection against downward destinations, or for

the upper middle class as inherently unstable. Whereas property can be inherited, and manual labour power is more or less universally available, the ability to perform professional/managerial tasks is not. All classes are unstable to the extent that their members change each generation: the upper middle class is - at least in the early stages of development - more unstable because it cannot as yet keep its advantage in the family. As a result, the manual class by dint of education or effort is able to gain entry to what is in any case an expanding class. Indeed, the very fact of this expansion makes it even more surprising (if one takes a conventional view) that so many sons of the middle class (and despite high levels of education) fail to retain their privilege. This represents a further modification of Parkin's view: the upper middle class have indeed been remiss in setting up a system in which their children cannot guarantee to be winners - but the system was not simple credential competition even in the 1960's, and the upper middle class do not yet wield sufficient influence over society to have the final say over all procedures. Pace Bourdieu, they do not have complete control over cultural capital. The strategy of closure is only one part of the total economic complex of supply and demand.

Here again sector differences come into play. In Chapter 9 we saw how there is both a general tendency towards credentialism among the younger respondents and also a concentration of opportunity for high qualification/high occupational status conjunction in the New Services and low qualification/low occupational status conjunction in manufacturing industry. It follows that on a market capacity argument, the upper middle class is becoming more focussed on a single sector. We would therefore expect (and this is a matter for future investigation) more evidence of closure strategies in the fields of commerce and public administration.

Limitations to mobility and mobility research

This above statement is based on the implicit assumption that the five sectors constitute some kind of labour market segments. The levels of intragenerational exchange between them are generally low, and they have throughout the study thrown up considerable variation in the mobility patterns under scrutiny. The other example of segmentation, that of the unskilled manual class, showed up less well, with greater exchange of personnel and less difference in unemployment, job turnover and income than might be predicted if it were a separate labour market. In the same way the exchange rates between skilled manual labour and its neighbouring classes were suggestive of the conclusion that substantial deskilling of male craft workers was not operating. More powerful forces on career outcomes seemed to be an early career reshuffling (between first job and job 10 years later) and the much more significant effect of sectoral shift. While the analysis again showed the utility of stressing the occupational dimension of mobility, the evidence could only support somewhat tentative conclusions.

Part of the problem with the account of labour market processes is that any general sample cannot give a full picture of career mobility, because it is still incomplete (although not so much as to prevent the conclusion that the first job analysis is a good indication of trends). Of course the trend analysis itself is for the same reason incomplete. While the present study by no means exhausts the seam that it has been working, it will be recognised that it must have limitations.

For example, if new research were being carried out, there would be strong grounds for using specific sub-samples, such as local or organizational studies, or men in key age brackets or classes (e.g. the new upper middle class). With the benefit of hindsight, complete

career histories for men would be the single major change introduced, paying particular attention to early careers. The study as reported has offered little on female employment, and even for the males has used a number of fairly crude and somewhat arbitrary categories - five industrial sectors, manual/non-manual classes, 'high' levels of qualifications etc. Again someone with greater statistical skill might be able to extract more refined statements about the comparative strengths of some of the effects discussed above.

Regional and a comparative national analysis are two areas where more work by a colleague is already in hand. The original data will soon be 10 years out of date, but in the light of current cuts in research budgets, it will be necessary to mine and re-mine the national studies for some time to come. Large-scale surveys are too demanding of time, energy and most of all money to be lightly undertaken.

If new lines of research are developed, the use of different classifications may also be necessary. Sociologists are often thrown back on pragmatic justifications for their choice of schemas, and in part the class schema outlined in Appendix I also makes that claim. On the other hand, by following an independent line, both in operationalising social class and in concentrating on the indigenous processes of occupational mobility, this study avoids being a mere replication of or adjunct to the Nuffield study. Even the accidents of real research events (rather than their anodyne reportage in research reports) can, as is shown in Appendix II, have beneficial results.

The present study does share with the work of the Nuffield team the unusual distinction in British sociology of combining extensive empirical investigation of mobility with attempts to theorise the main features of the class structure. While from the outset it has been the occupational and economic dimensions of mobility that have been stressed, rather than social or class mobility, it has equally been to class that the analysis has returned. The approach adopted has provided two kinds

of results. On the one hand, a framework of explanatory processes has been established to underpin both mobility and class. On the other, some of the specific assumptions about how the two are related have been, if not rejected, then substantially modified. Thus the study is not merely an exercise in Scottish sociography - important though that is. Its real test will be its capacity to move debate and research on occupations, mobility and social class one further step forward towards a fuller understanding.

Appendix 1: Occupational Scales and Social Class

Introduction

One of the classic schizophrenic features of British (and even American) sociology has been the treatment given to class and occupation. While the former topic has received extensive and varied treatment from stratification theorists, most researchers have in fact operationalised the concept of class and its associated poor relation, status, in terms of a set of occupational categories. This is so much of a convention that the use of research reports of the Registrar General's five (or six) social classes, or 17 socio-economic groups, or of the Hall-Jones classification, requires no justification. Indeed, in some cases the classification scheme may not even be specified (Bechhofer 1969). The result has been that criticisms of classification schemes, and of the uses made of such schemes, have been relatively few (Askam, 1969, Hope and Goldthorpe, 1972, Penn, 1981), and the link between stratification theory and empirical practice has often been weak. Sociologists with widely divergent theoretic perspectives have embraced the same technical solution, without comment.

In mobility research, the classification of occupations is an acute problem. Unlike some levels of analysis of dependent variables (such as the analysis of housing patterns by social class) in which large categories can be used to produce a broad picture which minor errors of imprecision will not distort, mobility research requires a more rigorous approach. It is necessary to know how exactly every occupation is to be categorised, because we are concerned with inter-job transitions: the universe of origins and destinations (the focus of the study) is the universe of jobs. Secondly, the occupational categories are generally treated as having an ordered structure, so that any specific moves become upward or downward mobility, or

short range or long range. Obviously the number and size of the categories defines which job transitions are treated as "mobility", (that is, transitions across category boundaries) and which are not (that is to say, transitions within boundaries).

Initially, the size and range of categories is determined by the choice of a coding frame, (See Seigel, 1971, 54; Hope and Goldthorpe, 1974, 22) but in practice these sets of categories are reduced; Hope and Goldthorpe have produced scales with 124 and 36 categories, for example, and the Glass analysis of Scotland by 5 socio-economic categories is an even more extreme case (Glass, 1954, 213-215). In other words, the actual number of categories eventually employed is either imposed by a statistical consideration, as with Glass, or by a combination of practicality and the theoretical interest of the researcher (Hope and Goldthorpe, 1972, 26).

Although designed, as it were, to meet the more exacting demands of mobility, the Hope-Goldthorpe Scale of Occupational Gradings was the only systematic sociological English categorisation of occupations currently available for general use at the relevant point in the coding of the Scottish Mobility Study data. The two alternatives were the Hall-Jones classification, which is not particularly systematic, and the OPCS classification, which is not particularly sociological (Hope and Goldthorpe, 1974, 7-8; MacDonald, 1974).⁽¹⁾ Once this

(1) Shortly after the original decision on coding the SMS data, Stewart et al outlined a further scale based on their survey of white collar workers around Cambridge. The distinctive feature of their classification is that respondents were asked to nominate 'friends', whose occupations were then compared for similarities. Using the Classification of Occupations 1966 as the base classification, a multidimensional scaling routine was applied to identify the distance between occupations. In this way, the authors' claim to use 'actual social relationships' instead of artificial ranking exercises, and to extract regularities of structured interaction patterns, without previous assumptions of structuring. Although this approach is interesting, it implies that the essence of an occupational hierarchy is expressed in the friendship choices of white collar workers, rather than friendship being a by-product (and therefore a less precise analogue) of class processes. See Stewart et al, 1973, 1980).

situation has been accepted, it follows that any British sociologists who does not wish to develop his own arbitrary categories must seriously consider use of Hope and Goldthorpe's work for the basic analysis of his data.

It is therefore unfortunate that the Hope-Goldthorpe scale has a number of limitations and unspecified features which may discourage its implementation. One purpose of this chapter is to draw attention to certain strengths of the scale which may attract otherwise reluctant users, even if Hope and Goldthorpe do not spell these out (and indeed may not wish to accept them). Despite the criticisms made below, this section is based on the belief that the Hope-Goldthorpe scale is a contribution of major importance to British empirical sociology, as well as to mobility research.⁽²⁾

Scales and Scalars

One of the more interesting features of the Hope-Goldthorpe approach is that it is presented as an interval scale, derived from popular rankings, rather than being a set of categories representing an ordered but less precise hierarchy, derived from sociological opinion. On close inspection, it is clear that both expert judgement and popular judgement have been combined, but in such a way that it is not clear what criteria have been used at which points. In the basic coding frame of the OPCS unit groups, which reduces over 20,000 occupations to 223 categories, the main principle has been similarity of work task, but with level of 'skill, working conditions, and associated 'social and economic status', being perhaps also taken into account' (Hope and Goldthorpe, 1974, 24). The way in which

(2) Much of the following discussion deals in detail with the Hope-Goldthorpe scale. The reader may find it useful to have Hope and Goldthorpe (1974) to hand while reading this chapter. Similarly, some of the technical points draw on Goldthorpe (1980).

OPCS derive 45 categories from the 223 unit groups in order to generate socio-economic groups is not clear (Hope and Goldthorpe, 1974, 27, footnote), and it is these 45 categories which Hope and Goldthorpe disaggregate into 124 final categories,

'in terms of the net extrinsic and intrinsic, material and non-material rewards and deprivations typically associated with the occupations' (Hope and Goldthorpe, 1974, 24).

and also in such a way as to include an unspecified industrial sector factor.

This imprecision makes it tempting to say that the category construction has been on grounds of status, when the more accurate position is that a range of criteria have been used, which can only usefully be called status if the term is used as a residual category for what remains after class (and power) have been defined. Certainly Hope and Goldthorpe do not accept the view that they have produced a prestige scale, not least because they reject the

'existence of some shared universe of meaning and value among the actors concerned, which is the necessary precondition of a prestige or status frame of reference' (Hope and Goldthorpe, 1972, 23-26).

In accepting this, the question remains: if the scale does not tap a status dimension, what does it tap? If there is no consensus, how can there be agreed judgements? The idea of a scale seems somewhat inappropriate - unless there is commitment to some shared underlying dimension which is not narrowly socially-patterned. Thus occupational (prestige/socio-economic status) grading scales are more widely used in the USA, where a consensual model is more generally accepted.

In the central American paradigm of social mobility, occupation is regarded both as an index of status (or more correctly socio-economic prestige) and also the carrier or embodiment of status. Individuals compete with each other to achieve the highest socio-economic prestige possible: all individuals are seeking to achieve the best occupation that they can attain. In as far as there is any idea of

market situations, it is a single open prestige market in which men find themselves.

In this context the use of ordered occupational categories -i.e. scales - based on popular ranking of occupations satisfies three conditions. Firstly, such rankings can be used to derive interval scales, and this opens the way for the use of a range of statistical procedures which facilitate the kinds of sophisticated analysis that typify American empirical investigations. Secondly, the scale provides a means of interpreting the outcome of the mobility process. Not only does it define what is, and what is not mobility, but it tells us what the public thinks is 'success' too. Thus the categorisation problem is solved by appeal to the subjective views of the members of society, and becomes simply a matter of finding the best categorical representation of a value system which supports the legitimacy of the occupational structure.

The third condition is that this notion of a consensus on status is congruent with a view of individual competitors all sharing the same ideas about the rules of the game. In other words, all individuals tend towards the same motivational or behaviour syndrome over occupations, because of their shared evaluations, and the occupational ranking scale is one representation of the mental scale which informs the individual in his career activities. Both occupational scales and the socio-economic achievement model derive their standing from the underlying conception of normative and evaluative consensus. It is true that not all scales are seen as being identically concerned with prestige. Blau and Duncan use a prestige rating to weight income and education data from the census (Blau and Duncan, 1967), whereas Reiss (and subsequent users) treats the NORC data as straightforward prestige rating (Reiss, 1961, 75-7). However the variations are not sufficient to invalidate the general description of the dominant American approach.

Within this framework, the high levels of agreement between occupational scales over many societies and several decades is usually taken as supporting evidence that an over-riding and impelling set of rules develop in all societies once industrialisation has begun (eg Trieman, 1975, 193-194). As Coxon and Jones note

'sociologists and intellectuals seem to have been mesmerised by the high values of such profile correlations, and appear to have forgotten the principle that disagreements which may be very important are necessarily accompanied by numerous basic agreements.' (Coxon and Jones, 1978, 51).⁽³⁾

The perspective of social differentiation provides a further framework for both accepting this interpretation and for carrying out mobility research on the grand scale. But what happens if the American paradigm is not the starting point for mobility research?

If it is accepted that in studying occupations one studies only occupational mobility per se, and not social mobility, socio-economic prestige is separated (at least analytically) from the occupation itself. It follows that nothing is directly known about the prestige hierarchy of a society by knowing its occupational structure and processes. When individuals compete for jobs, there is no longer any need to assume that they share the same view of a complete occupational hierarchy. There is also no need to assume that the same motivational syndrome tends to apply in all cases, and therefore the occupational ranking scale loses its second and third supporting justifications. It cannot be a representation of a mental scale of prestige to which individuals subscribe, and which they activate in career decisions, because there is no inherent assumption that such a mental scale exists. Nor does it provide us with a means of evaluating the outcome of the occupational competition as a whole, since the scale cannot be tapping a non-existent evaluative consensus.

(3) For accounts that stress the variability of perceptions of hierarchies among particular sub-cultures, see Young and Willmott, 1956, Brown and Inkeles (1960).

It follows that the categorisation of occupations could equally well be derived from sociological ideas about social strata, or from objective criteria such as income or education requirement, or from a popular ranking which is an expression of what society is like - not which occupations are highly desired, or competed over, nor which criteria are involved in the individual motivations relevant to the study of occupational mobility. In the case of a 'what-society-is-like' ranking, some idea of a shared universe of meanings is still retained, but it refers to a new dimension which is less closely related to social behaviour and may therefore be relatively imprecise. With this approach, inter-scale agreement is taken to mean that most industrial societies have similarities in the way in which, 'on average', their members perceive them. Such agreement stems partly from the way in which the scales are constructed, and partly from such a level of crude agreement (about who is rich or poor, powerful, or helpless, exploiter or exploited) as to have little sociological utility. Naturally, the cases of disagreement between scales assume a greater importance as supporting evidence that people do not even agree about how things are, let alone about which occupations they should compete to achieve.

This 'minimal' view of occupational ranking raises questions for the idea of 'upward' and 'downward' mobility. Since a scale does not provide a detailed representation of agreed evaluations, measures of short-range mobility (or transitions across the 'fine structure', by individuals or groups) are unreliable. We do not know how strongly there is support for such short-range movement being defined as mobility, let alone whether it is upward or downward mobility. Equally, there is no assumption that the individuals in question define themselves as being mobile. Only long-range mobility - or transitions across the 'crude structure' can be safely treated

as mobility, but of course whether specific individuals with this experience define themselves as mobile is still problematic, and the division between 'crude' and 'fine' is crucial. In this way, the basis for deciding what constitutes upward or downward mobility changes from being popular consensus back towards sociological opinion, as was the case in the categorisation of occupations. This opinion may implicitly or explicitly draw, among other things, upon the crude structures derived from a ranking exercise, such as the Hope-Goldthorpe scale. But this is not the same as basing an analysis on a scale which is taken to be a valid and detailed representation of the popular consensus, of occupational prestige for instance, to which all members of a society are assumed to subscribe. In particular it need have no behavioural implications.

The Hope-Goldthorpe occupational grading scale

This view of occupational scales is not shared by Hope and Goldthorpe. While they reject the notion of an integrated prestige consensus which in some way represents an underlying structure of social relations (Hope and Goldthorpe, 1972, 32-33) their alternative is to regard scales as manifesting

'the convergence of - or, one might say, the extent of the common factor in - popular assessment of occupations, according to whatever attributes individuals happen to regard as relevant to the position of occupations in over-all 'better worse' terms' (Hope and Goldthorpe, 12, original emphasis).

Their understanding of the ranking task is that the actual wording of the instructions - 'prestige', 'social status', 'desirability' - serve as a trigger mechanism. The ranker then proceeds to select his own criteria, attaching his own view of the relative importance of each of these criteria. Disagreements between rankers are due to differences in cognition, that is to say to

'differences in knowledge about particular occupations (and perhaps other sources of 'error'), and secondly

the degree of dissensus among individuals in their choice and weighting of the attributes which they treat as relevant to occupational desirability' (Hope and Goldthorpe, 1974, 13).

Since Hope and Goldthorpe believe that all likely criteria are highly correlated, it does not matter which criteria are selected or how they are weighted, although similar weightings are likely (Hope and Goldthorpe, 1974, 12). There will be individual differences but not differences which are socially-patterned.

This position involves two explicit assumptions. The first is that knowledge about most occupations is generally available for ranking purposes. Hope and Goldthorpe do not state what an adequate level of knowledge would be, or what form it would take. Would it for instance be the case that most people shared similar levels of knowledge about most occupations, or that some people had so much knowledge of some occupations to ensure a useful ranking? A more attractive idea is that put forward by Coxon and Jones

'In asking how a particular set of occupations is 'averagely perceived' by a given group of people ... one is raising questions about social stereotypes' (Coxon and Jones, 1978, 3).

These stereotypes may be derived from first hand experiences or from the media, and will have filtered through previous perceptions of the world of social relations. This is not the same thing as shared, accurate knowledge. What would this knowledge consist of? If, as some studies have suggested, income and education requirements are the commonest criteria used in ranking (Reiss, 1961; Tiryakian, 1958; Blau and Duncan, 1967) then the knowledge would largely be about these two items. But this is to assume sufficient detailed knowledge on the part of the general public of a constantly shifting and complex distribution for a reliable scale to emerge. In other words, the reliability of the scale depends on what appears to be a relatively high and accurate level of knowledge.

Are Hope and Goldthorpe justified in making this assumption, and in presenting no evidence about levels of knowledge? If one considers the debate at the time of the 1973 miners strike about how much a miner was actually earning, or the well-known cases of the welfare worker and nuclear physicist from Reiss, as indications that the cases of low knowledge do occur, it is not unreasonable to question whether the level of knowledge is lower than Hope and Goldthorpe assume. And since the level of knowledge is both crucial and problematic, some evidence would seem to be necessary.

The second problem with this position is that a scale would be inherently unstable. Since it is ultimately derived from a mixture of criteria, then the balance of these criteria can be easily upset by a relatively small change within one criterion, or by a change in the perceived importance of one criterion. Suppose that most rankers used only two criteria, income and security: in a period of inflation, then income is likely to be more in the public mind, but in a period of unemployment, security would be the more important. The balance of the criteria could in this way shift sharply in the short term (as well the long term) but there is no reason to suppose that all sectors of society would respond in the same way at the same point in time. Those who felt least under pressure (eg salaried government professionals with contracts, during a recession) would react less and more slowly. Thus while part of the society subscribed to the former consensus, part would be moving to a new one.

In the same way, an improvement in income for a particular occupation (eg mining), would mean some shift in the ranking of that job by only those people who used the income frame of reference in ranking that job. This corresponds to the real life situation in which the miners' success in 1974 persuaded thousands of men to make a career decision and enter, return to, or remain in mining. The basis of the ranking is thus not stable, but liable to change in a complex way which

is hard to predict once we return to the real situation in which far more than two criteria are involved.

These changes are only unimportant if one accepts Hope and Goldthorpe's second basic assumption that whatever criteria are used (and however they are weighted), there is a high correlation between likely criteria. Although Hope and Goldthorpe argue that specific instructions in ranking tasks do not matter (since they serve only to trigger whatever process is going to happen, regardless of the precise form of the stimuli (Hope and Goldthorpe, 1974, p. 12)) their justification for assuming high inter-correlation of criteria comes from a ranking task in which respondents were asked to rank the same occupations four times on four different criteria. They conclude that

'the four attributes or dimensions are not treated as synonymous and the distinctions made among them are to some extent shared by respondents' (Hope and Goldthorpe, 1974, 155).

Unless respondents can differentiate, then evidence on inter-correlation has little value. If they do differentiate, then the scores for the three average correlations (between 'Standard of living' and 'Power and Influence' (0.75), 'Qualifications' and 'Value to Society' (0.75), and between 'Standard of Living' and 'Value to Society' (0.50)) which are lower than the other correlations at 0.85, suggest that choice and weighting of criteria by respondents could be important. Thus for example one ranker who employed 'Value to Society' as his major criterion would not have the same level of agreement with a ranker concentrating on 'Standard of Living', as would another ranker using 'Qualifications'. The average correlations of scores produced by any two respondents on each of the criteria separately was 0.58 for Standard of Living, 0.55 on Power and Influence, 0.64 on Level of Qualification, and 0.46 on Value to Society, which again suggests that the criteria selection is not an insignificant matter (Hope and Goldthorpe, 1974, 152-157).

These correlation values are open to two interpretations. Hope and Goldthorpe regard them as showing both acceptable level of concurrence, plus an acceptable level of disagreement - acceptable because it is individual disagreement, not a socially-patterned disagreement.

A more pessimistic view would be that the level of agreement is so low that whatever is being tapped by the ranking task is too weak to form the basis of a grading scale. Unfortunately, we do not know enough about the form of the inter-individual agreement, or the inter-criteria agreement to interpret the average correlation coefficients reported. Thus while a correlation of 0.50 may be generally considered to show a relatively strong relationship, it may in fact not carry much information in a comparison of 20 or 40 occupations, and when expressed as an average of inter-pair agreements. For example, agreement may be higher in one part of a ranking than in others. Or the agreement could consist of all occupations being consistently ranked in roughly the same way, or in a combination of some occupations ranked in a closely similar way, with other occupations showing greater discrepancies. The importance of deciding exactly what agreement consists of is absolutely central; it receives fuller treatment elsewhere.

It is probable that Hope and Goldthorpe would see this pessimism as not only unjustified, but irrelevant. Two main concerns dominate their approach: firstly that a scale, averaged over many respondents, is stable and has no socially patterned dissentors, and secondly that the categories used in the construction of the scale are satisfactory in their internal homogeneity and external heterogeneity. Because they choose to concentrate on these features, particularly in the discussion of evidence from analysis of variance, the lack of agreement problem assumes only a minor role in their framework.

As an example, the discussion of the components of variance

in the main scale identifies four items: categories: heterogeneity within categories; respondent disagreement; and respondent inconsistency:

'although (respondent) disagreement and inconsistency account for almost two thirds of this variance, it must be appreciated that no scale value is derived from a single grading, and that the proportionate importance of disagreement and inconsistency declines as more and more gradings are aggregated in the estimate of the position of an occupation or a category' (Hope and Goldthorpe, 1974, 57).

The information which Hope and Goldthorpe present for the range of ranking for each category (no occupation data are presented) is in terms of standard deviations, but without some knowledge of the distribution of each category this is not very helpful. Lacking some idea of the range, evaluation of the use of the mean as the measure of central tendency cannot be made. This is important, because as there seems to be considerable respondent inconsistency - i.e. the same respondent produces different results on doing the ranking test a second time (mean correlation = 0.58, Hope and Goldthorpe 1974, 53), the stability of the scale is not due to its tapping of a stable underlying characteristic in the sense that a personality trait is treated as stable and open to re-test. Since respondents are inconsistent, the scale's stability presumably depends on its construction by averaging, not on stable personal cognitions of occupations.

This raises a fundamental question for the Hope-Goldthorpe model of the ranking process, because if criteria are highly inter-correlated, and if ranking depends on knowledge, then on both counts respondents should be highly consistent. At any two points in time any individual's level of knowledge would be most unlikely to change: for practical purposes it could be treated as a constant, or at worst a minor term. Hope and Goldthorpe also argue that the criteria used in ranking are inter-correlated, and the weightings between criteria unlikely to vary. In other words, if Hope and Goldthorpe are correct in their model, then the agreement

between two rankings by the same individual should be extremely high, since the model does not account for any source of disagreement. But in fact the level of agreement, as indicated by the mean correlation of 0.58, is only moderate despite the use of 'the more commonly occurring occupations' (Hope and Goldthorpe, 1974, 46). This piece of evidence is not consistent with the Hope-Goldthorpe model. It would appear that a new model is necessary which can accommodate the low levels of agreement reported (the only other obvious solution is a retreat to impugning the data collection stage of the research design, such as the 52.4% (or 620 out of 1363) achieved interview response rate (Hope and Goldthorpe, 1974, 52).

In earlier rejecting the consensus view of mobility, it was argued that such a view involved assumptions about how behaviour was modified by the underlying factor which was tapped by a ranking exercise. Hope and Goldthorpe reject the notion of a prestige scale which relates to acts of deference, acceptance and derogation (Hope and Goldthorpe, 1972, 23 - 24). However, it is not clear if they believe that their own scale has behavioural implications, such as in the contexts of career choice, job change, aspirations for sons, and so on. Does 'general desirability' refer to a frame of reference which is implemented in any situation except a ranking task? If the answer is yes, then the Hope-Goldthorpe model of a relatively well-informed and precise judgement, would lead one to expect that the behavioural implications would be 'strong' since the cognition is coherent and stable. At the same time because the cognition is assumed to be so coherent and stable it appears unlikely to exist in the splendid isolation of the ranking task: it seems probable that it is implemented in other situations, which is why in the absence of any clear statement from Hope and Goldthorpe one can make the assumption of behavioural implications.

This is an unfortunate implication. The evidence on occupational decisions suggests that most decisions do not involve the implementation

of a grand hierarchical view (eg. Williams, 1975; Carter, 1966) nor do workers evaluate their own success or failure against some grand design (Runciman, 1966; Cloward and Jones, 1963); instead a number of short range comparisons are made. But if general desirability does not relate to these most likely contexts, to what does it relate? A weaker model of the ranking task need not have these behavioural implications, or at least would be compatible with a view of an occupational hierarchy which was little more than a crude grouping based on a simple image of society. An image of society is usually taken as being both vague and crude; it cannot by definition take on a precise form, or enter into the process of occupational cognition as an exact referent.

This point has had considerable influence on the work of Coxon and Jones, who have argued that writers such as Lockwood, Bott, Goldthorpe and Runciman share a valid

'belief that images or models of society are not necessarily or completely open to observation.... (Bott) even says that several of her subjects were hardly aware that they were operating a model of the class structure, and that some of these experienced "pain" in the course of making their "model" explicit and realising its inconsistencies' (Coxon and Jones, 1974, 5 and 2).

Coxon and Jones are critical of the reliability of the depth-interview techniques which are necessary to excavate these images of society, suggesting that the variability of the images may be distorted by the class-image of the researcher. The need for such techniques is an indication that the images are not precise, and are therefore not available to the ranker's process of cognition as an exact referent.

In discussing Bott's work (and that of Runciman) Coxon and Jones also illustrate the difference between individuals in the criteria they choose. While respondents use occupation as the main determinant of 'class membership' (whatever form such classes may take),

'some thought of occupation as a source of power, others were thinking of its general prestige, others of the income attached to it' (Bott, 1971, 172).

Perception of industrial society may be in terms of a class, status, or power model (or a combination of these elements) and as Runciman says, the particular model leads the individual generally to perceive and emphasise those features which are most relevant to his model (Runciman, 1966, 44). In ranking occupations, these features become the criteria for judgements, even if the images from which they flow are so imprecise.

It follows that the images on which rankings are based do not just vary, but differ from one another 'because of socially-structured causal processes'. The assumption that occupations can be ranked on a single dimension of desirability 'is an oversimplification, and a dangerous one at that' (Coxon and Jones, 1978, 193). Given the range of both individual and occupational group variation which Coxon and Jones report for their study, the researcher faces a serious dilemma in attempting any research involving an occupational hierarchy derived from popular rankings. The solution adopted here is not to take the Hope-Goldthorpe scale at face value, but rather to seek to re-conceptualise it, in such a way that its results can be salvaged for a new scale which will have a more credible logical status. That is to say, we require a 'weaker' version of the original scale which assumes greater disagreement between rankers and yet still provides a useable scale.

A minimal view of occupational rankings

If the Hope-Goldthorpe model is modified so that firstly a very low level of knowledge about occupations replaces a high level of knowledge, and secondly that the criteria are assumed to be less consistent, and less consistently applied, the meaning of the ranking task takes on a new form. Occupations can be regarded as ranging along a continuum from those which are relatively well known, to those about which nothing is known. At one end of this continuum are 'public' occupations: doctors, teachers, shop assistants, postmen, dustmen, etc. Such occupations

are visible and available in almost all local social milieux, so that a ranking is not only possible, but might actually reflect evaluations that are brought to bear in a number of contexts in the respondent's daily lives. These occupations are not typical of the spectrum of all occupations, since many of them are visible because they are personal service occupations or occupations in which 'dealing with people' is part of the work task. Scale values based on mean ranking of such titles could express a relatively high level of agreement, since the role models are widely available. Any one individual's knowledge continuum of occupations will also include some occupations about which he personally knows, due to his work setting, or through his personal contacts which provide his knowledge of his kin's jobs, or those of his neighbours. Of course, he may not be asked to rank any of these directly, but his awareness of his own foreman or manager (or employees) may provide the basis for generalisation.

At the other end of the continuum are occupations which have to be ranked on the basis of a very low level of awareness (such as, from the Hope-Goldthorpe scale, mole-catcher, tool-maker, tripe-dresser, TV producer). It may be that the ranker perceives an occupation as being a professional job, or a skilled job, or an unskilled job, but has to guess where it fits within these categories. Or he may have to make a complete guess, and will probably make a central allocation (Alexander 1972, 769-770). There are many more occupations at this lower end of the occupational knowledge continuum, than at the top. ⁽⁴⁾

-
- (4) In both of these types of occupations, the 'knowledge' may be more or less 'accurate', and more or less extensive. Some socially-received simplified construction, rather than a precise representation of what an occupation is like, is what is being ranked. Women who are not in gainful employment would probably have less 'knowledge' than working men, and levels of knowledge might also be socially patterned in other ways. This is very similar to Coxon and Jones' idea of stereotyping (Coxon and Jones, 1978, 4-10).

It follows that many rankings have little precise meaning, and disagreement between rankers over these is largely to be expected, since the rankers are making estimates in an un-informed way. Some estimates are more wild than others, but taken together these estimates have an interesting effect on the outcome. In as far as there is agreement that certain occupations do belong at the top, or in the middle, or at the bottom of the hierarchy, their rankings can be regarded as being randomly allocated within the range of the scale's top, or its middle, or bottom. Then only a slight weighting (either from complete ignorance, or from informed judgement) can provide an order, because all the other ranking cancel each other out.⁽⁵⁾

- (5) As an illustration, consider five occupations ranked by 11 individuals, labelled A-K. The first 10 of the rankers have ranked these occupations in a quasi-random way, overall. Thus 'joiner' is ranked '1st' twice, '2nd' twice, '3rd' twice, etc. But ranker K uses a different ranking, so producing a mean score on the right which imposes an internal order to the occupations. The purpose of this example is only to illustrate the simple point that a scale can be derived from an activity which makes low level assumptions of agreement and knowledge.

Occupations	Ranker										Mean Ranking	
	A	B	C	D	E	F	G	H	I	J		K
Joiner	1	1	2	2	3	3	4	4	5	5	1	2.82
Plumber	5	5	1	1	2	2	3	3	4	4	2	2.91
Slater	4	4	5	5	1	1	2	2	3	3	3	3.00
Plasterer	3	3	4	4	5	5	1	1	2	2	4	3.09
Electrician	2	2	3	3	4	4	5	5	1	1	5	3.18

Although the differences in the mean ranking is small, it is perfectly possible so to weight them that the difference is emphasised: it is normal for scales to involve some kind of standardisation and weighting (eg Hope and Goldthorpe, 1974, 53-54). (Continued over)

Provided that the added assumption is made that rankers on the whole tend to locate occupations into roughly similar bands of the overall ranking, then an occupational scale has validity as an approximate structure. That structure is stable, due to the explicit assumption of the model that so many of its constituent rankings are self-cancelling because they are random within the band. A further source of stability may be the weighting due to those occupations from the higher end of the occupational knowledge continuum. But the separate occupations

-
- (5) (Contd.) In this example, the allocation of ranks is not strictly random, and the inter-pair mean correlation is -0.11 for the 10 rankers A to J. However, consider the case in which there were another 5 occupations which were all ranked between 6th and 10th by the 10 rankers, with exactly the same pattern of quasi-randomness within the range 6 to 10 as there is between 1 and 5. The inter-pair correlation for the lower half (6-10) would again be very small, but the overall mean inter-pair correlation for the rankers would be $0.6!$

What would this apparently high level of agreement consist of? Only that (a) the first five occupations are all ranked above all the second five occupations, and (b) that never more than 2 out of 10 rankers agree on any one occupation. It is hoped that this will serve as a simple way of raising the problem of what agreement among rankers means, or alternatively, how little agreement is required to produce a scale. As an average, the scale will be the best approximation: but the best need not be very good. A lengthier discussion of profile correlation, as used in the literature on international comparison, can be found in Coxon and Jones, 1980, 34-42. I am grateful to Alan Anderson and Graeme Ford for the long discussions of ranking correlations that helped to clarify these points.

which make up the categories would show short range variations and need not be so stable. The low levels of intercorrelation (0.53 mean correlation between individuals) reported by Hope and Goldthorpe would tend to suggest that the boundaries of these bands are not rigidly fixed, nor agreed to by all rankers.

Alternatively, the criteria which are used - particularly for the 'unknown occupations' - may be used more inconsistently and have a less close inter-relationship than Hope and Goldthorpe argue. This would fit the level of correlation for the four criteria in fact reported by them. Other criteria might be used - such as 'clean/dirty', or 'security/insecurity', or even arbitrary personal selections, and each of the occupations in a set may be ranked using a sliding combination of different criteria. The absence of socially-patterned rankings (no age, class, or regional effect) is due to the high level of individual disagreement, and the very crude level of concurrence. But of what does this concurrence consist?

If a wide range of criteria are being 'rolled' in this way (ie included but used spasmodically in ranking a set of occupations) what does the minimal model assume to be the major dimension of the scale? The simple answer is that, like Hope and Goldthorpe, the task instructions are seen as a trigger and it is not possible to know which criteria have been rolled. The formal construction of the unit groups and the 124 Hope-Goldthorpe categories was, as noted above, based on work task, modified by skill level, working conditions and associated social and economic status, and then packaged by similarities in net extrinsic and intrinsic material and non-material rewards and deprivations, and further modified by an industrial sector grouping, details of which are not recoverable from the published material. In other words, the categories were arrived at by an almost equally unknowable synthesis of criteria (it should be again stressed that the term status is not to be employed as a catchall to cover the

imprecision of the various components).

This is not a minor caveat about the category construction: it was possible for Hope and Goldthorpe to obtain direct rankings for only 860 occupational titles out of over 20,000. 27 unit groups (12.2% of 223) were not represented at all in the 860 titles. Out of the 1058 legitimate combinations of unit group and specific employment status (employee; foreman; manager; etc) 502 (47.4%) were not ranked directly on at least a single title. The occupations contained in these 502 combinations owe their Hope-Goldthorpe scale score to the experts whose categorisation set the ranked titles as equivalent to the unranked titles (for details of the construction see Hope and Goldthorpe, 1974, 22-46).

Thus it seems reasonable to say that in both the categorisation and ranking stages, the criteria for decisions, and therefore the major dimension - or principle of central tendency, or underlying common factor - is not open to isolation or identification. At best it is a shadowy mixture of many components, most of which are (optimistically) connected with, if not defined as, 'general desirability'. This is possibly the same thing that American sociologists have called 'socio-economic prestige', but the latter term is inappropriate because it falsely assumes a consensus and has other theoretical implications. In other words, the idea of socio-economic prestige imposes an unwarranted concreteness on a confused mass of judgements, and mistakes them for a single dimension, largely because it draws on status, which is itself an unsatisfactory category.

It follows that when an individual moves from one occupational category of the Hope-Goldthorpe scale to another, it is not possible to say with great confidence exactly in what way he has been mobile. He has changed his occupation, but he has not moved across a hierarchy of work tasks alone. With the job-change go the constellation of associated attributes that are job-related, so, to make a shift of

emphasis, the scale of occupations is not as Hope and Goldthorpe tend to stress, a scale of occupations per se (Hope and Goldthorpe, 1974, 132-133). It is a scale of social identity or even mobility of some kind, in which occupation (or occupational category) provides the point stimulus for identification. This does not mean that other aspects of social behaviour do not require separate empirical enquiry in the way that Hope and Goldthorpe suggest. In theory, a strictly occupational scale would be tapping intrinsic features (although this seems to be a practical impossibility), whereas Hope and Goldthorpe would seem to have equally well tapped extrinsic features. If one is concerned with careers and intra-generational mobility, intrinsic features are more important (qualification requirements, job-performance, nature of work task, etc). However, if one is more concerned with inter-generational mobility, the extrinsic features predominate (status, life style, etc). Do fathers want their sons to follow in their footsteps? Proprietors apart, the answer is probably not, as far as literal self-recruitment is concerned. Fathers' aspirations are probably for any job that provides the same or better extrinsic rewards as his own, compatible with acceptable levels of intrinsic deprivation. For example, an academic may hope that his son will be a professional, but not necessarily another academic. What he is hoping for is the level of extrinsic attributes associated with a range of upper middle class jobs, which in turn have a set of intrinsic rewards and deprivations. For want of a better term, it is the extrinsic 'life-style' that is important, not the work task in the narrow sense.

This is consistent with the simpler model outlined above. Parents know little about the content of specific jobs or careers, but do have a general awareness of occupational and social spheres (although obviously the nature of the awareness is varied). Just as they can set up a very crude hierarchy of occupations in a ranking task, so they can attempt generally to influence the occupational

and social destinies of their children, in the same approximate fashion. The Hope-Goldthorpe scale seems well suited to the analysis of inter-generational mobility, but may be slightly less suitable for the analysis of intra-generational mobility.

'Employment status' as a ranking principle

In the preceding discussion, the simpler model of the ranking process was shown to be compatible with aspects of the Hope-Goldthorpe scale's construction, also with some external evidence (such as it is) from other sociological work, and with that part of the internal Hope-Goldthorpe evidence which deals directly with agreements. The next step is to re-consider the scale in search of further evidence to support this model. In particular, there should be some indication that the scale can be treated as consisting of bands of occupational categories (although as has been already noted, the idea of bands has been used to illuminate the process of construction, rather than being a statement about the occupational structure defined by the scale).

The model of what people do in their ranking task is intended to be generally applicable. However, the nature of the Hope-Goldthorpe task modified the basic pattern by the way in which the occupational stimuli were phrased. Following from their criticisms the Hall-Jones scale as a technique which could not be consistently applied (Hope and Goldthorpe, 1974, 7-8 (see also Coxon and Jones, 1973, 4)) they argue

'that little would be lost, and that much might be gained, by systematically introducing employment status into our classification procedures ... We recognised that to introduce employment status into the construction of our scale at the basic level would be to abrogate the common supposition that an occupation is a work role and set of work tasks which may be identified independently of the economic relations in which its incumbents are involved. However, it would seem that in a modern industrial society this abstraction is increasingly difficult to sustain - as is

most evident, perhaps, in the description and analysis of managerial and supervisory occupations (cf OPCS, 1970, vii). We also noted that most current occupational 'prestige' scales do in fact take employment status into account, if only in an ad hoc fashion, by qualifying certain occupation titles with terms such as 'self employed', 'own business', 'freelance', 'foreman', etc.' (Hope and Goldthorpe 1974, 23).

Hope and Goldthorpe are a little inconsistent in their allocation of the employment status labels to fit different sectors. Thus the same level of employment status ('large proprietors') is described variously as 'with more than 25 employees', or 'own firm', ('Works', 'Agency') with 'more than 25 employees', or 'partner in firm with more than 25 employees', while managers of firms with large numbers of employees work in a 'large firm' or a 'large branch office'. The basic range of statuses is: large proprietor, small proprietor, self employed worker, large manager, small manager, foreman/supervisor, and employee (which includes apprentices, family employees, and what OPCS refers to 'other employees'). Unlabelled titles in the ranking task were meant to refer to employees, but the respondents were not told this, and there was no guarantee that an individuals' list of 40 names would automatically alert him to the set of employment statuses involved.

If these employment statuses had been ranked in isolation from occupation titles, it seems plausible to suggest that almost all people would agree to the ranking of the 'large' above the 'small', and to 'manager' above 'foreman'. 'Employee' would probably cause more problems, because like the self-employed category, a wider range is involved (from professional to labourer). On balance, 'employee' is more likely to come lowest of all, with 'self-employed' above it, although there might be a lower level of general agreement about this. It is possible that there are small proprietors and self-employed workers in service industries, so that their visibility could affect their ranking, and this would of course be more true if occupation titles were involved. In other words, there

might be some slight industrial sector effect mixed with the employment status.

The biggest area of disagreement over ranking the statuses would probably be over the relative position of the proprietors and managers, and the foremen and the self-employed. Without the further detail provided by occupation title, such comparisons would be more difficult to make. It is tentatively proposed that on balance large proprietors would outrank large managers, and small proprietors probably outrank small managers, for the same occupations. Small scale experiments with groups of sociology students suggests that this is the case.

If the employment status effect works in this way, when combined with occupation title, to produce a hierarchy, the Hope-Goldthorpe rankings should consistently place 'large' above 'small' for the same occupation title. Hope and Goldthorpe report several anomalies in their scale which do not fit this hypothesis. Large and small proprietor draughtsmen are in reverse order, as are categories 1204 and 0404 (mainly gardeners, warehousemen and security workers). In both cases the lower-ranked categories contain some occupations which are ranked much lower than the other occupations in their category, so depressing the category score. The same inversion applies to several self-employed semi-professionals who would receive a lower score (suffer downward mobility) if they took on employees! There are also a few cases of foreman/employee inversions (Hope and Goldthorpe, 1974, 65-67). However, compared with the large total of possible 'reversals' in the scale, the shortness of the anomalies list, and the allied short range nature of these inversions, strongly suggests that the employment statuses do provide a structure to the ranking.

It therefore appears that what was earlier described as a general tendency to rank within broad bands has been modified by the employment statuses, so that in the case of the Hope-Goldthorpe

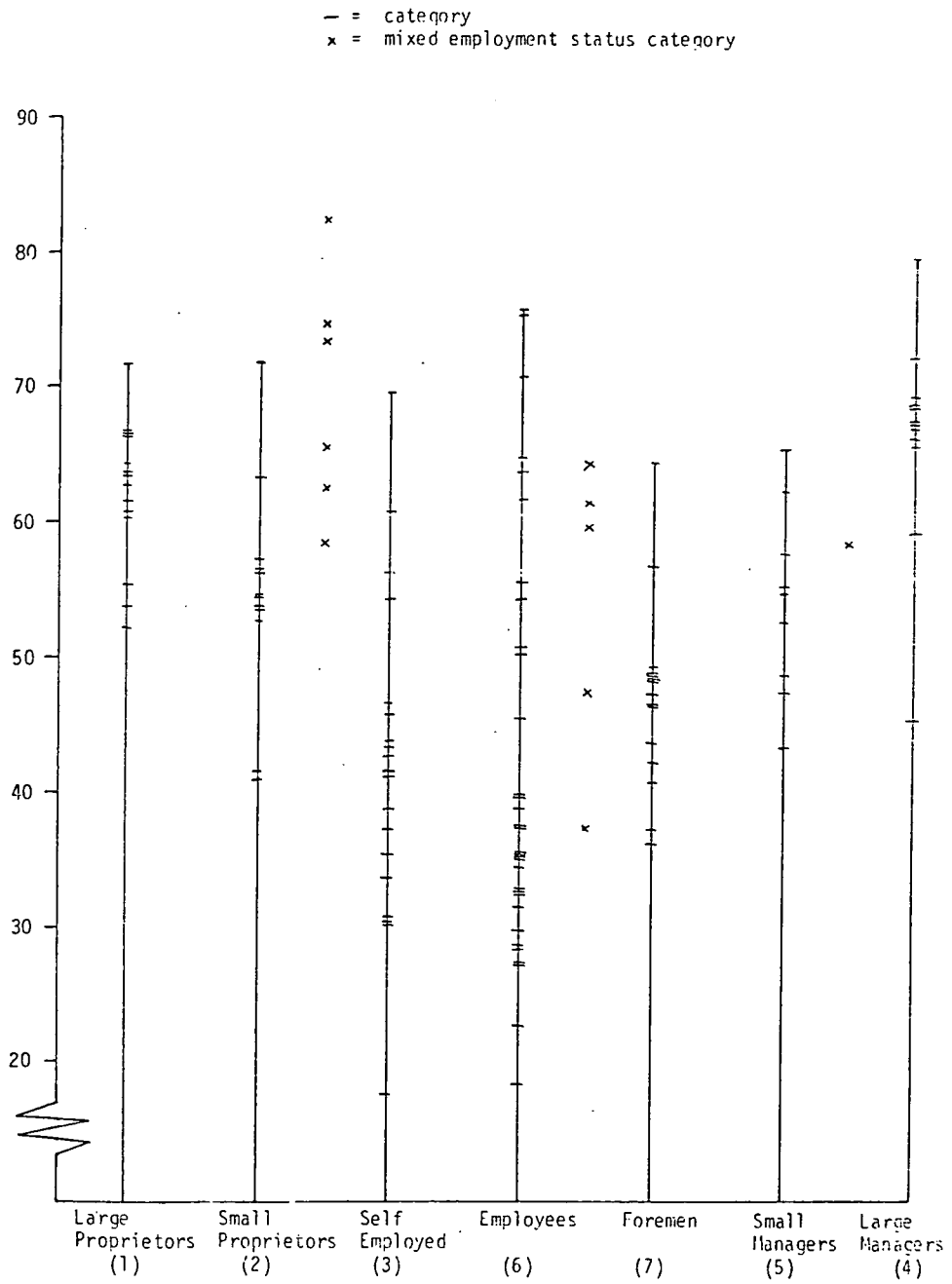
scale, the basic general perception of bands has been associated with a set of employment status bands. The 'top band' is stimulated by the terms large owner and large manager as well as by professional occupational titles. The middle of the scale includes occupations with the stimulus of foreman, and also those manual occupations linked to the self-employed status. The lower range contains "employees".

It is possible to disaggregate the scale to see how each employment status has been ranked. This is shown in Fig. 1. (see over) Instead of a single vertical plot of 124 points, the scale has been plotted as if it consisted seven separate employment status scales. Those categories which contain more than one employment status are marked as close to their several employment statuses as possible.

It will be apparent that some sort of V-shape pattern is contained in this figure. Large proprietors cluster neatly above small proprietors, with an overlap of 2 or 3 cases. The third column of self-employed scores mainly lower than the small proprietors, but with a greater range.

The employees scores are far more varied, ranging from 76 to 23 points. Since they run from salaried professionals, through technicians and clerical workers to manual workers, such a range is not surprising. Naturally some discrimination is made due to the occupational title: this need be at only a crude level to produce such results. In the case of the owners and managers, there is within each employment status some evidence of a similar secondary discrimination: occupations which are "clean" and require educational qualification tend to come above dirty and less highly qualified ones. The pattern repeats for both the large and small sets. Again, a crude level of discrimination, even by a small proportion of rankers, could produce this affect.

Fig. 1. Scale Values by Employment Status

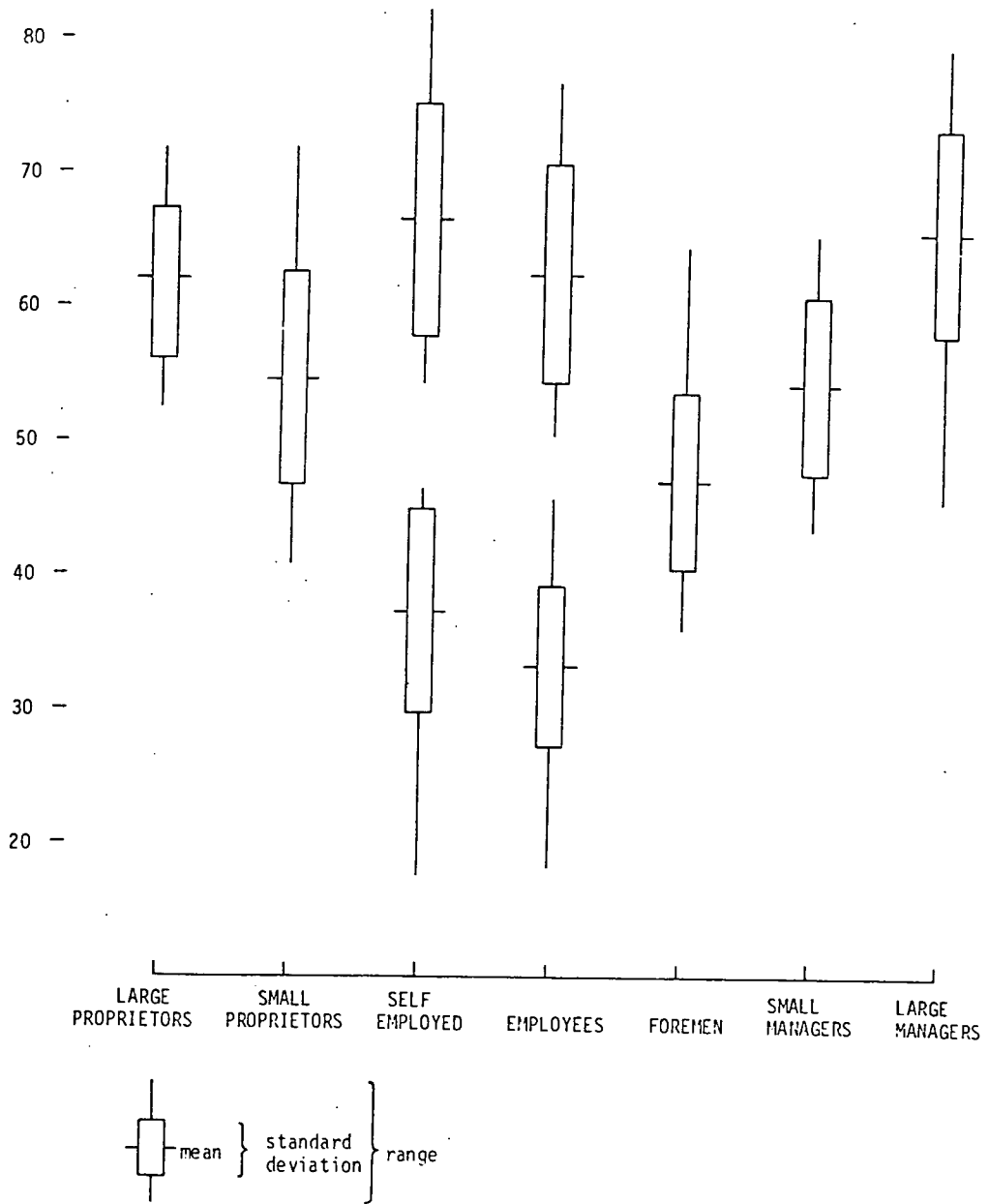


A simpler and perhaps more informative representation of the seven main statuses is given in Fig. 2. The twelve categories with more than one employment status have been arbitrarily amalgamated with the employment status set that the author believes the category as a whole most resembles. The two largest sets of employee and self-employed have each been split at the scale's mid-point of 50, which reflects the secondary 'clean/dirty' or 'high'/low qualifications' dimension. The mid-point cut-off falls within a relatively wide gap of about five points in both employment status sets. In the case of the employees, this places all technicians and semi-professionals etc in the upper half, and routine clerical, service and manual employees in the lower half. In the case of the self employed with no employees, it places all those with some capital plant - boat owners, lodging house owners, etc., plus the self employed technicians, semi professionals etc., in the upper half, and self-employed artisans, service workers and labourers in the lower half (with the one exception of publicans and garage owners operating on such a small scale as to have no employees, who fall into the lower half).

Fig. 2 shows the mean, standard deviation, and range of each employment status, allowing for these modifications (see next page).

This display helps to make clear the extent of overlap, as well as the degree of differentiation between the sets. The adjacent overlaps tend to contain those occupations in an upper set which score low on the clean/dirty or high/low qualifications dimensions, and those occupations in a lower set which score high on this second factor. Fig. 2 gives no indication of the proportions of each employment status in the work force: the lower employee set is by far the largest group, while large proprietors are only 0.03% of the male work-force. Thus an apparent overlap may be conceptually important but numerically so small as to be ignored in setting up broad socio-economic categories. The large proprietor, large manager, and the upper sets of the self employed and employees, all show great similarity as an upper grouping.

Fig. 2. EMPLOYMENT STATUS



To some extent, small managers and proprietors, and foremen, fill the gap between them and the lower self-employed and employees. A three-tier model would go a long way to represent this average view.

An alternative way to summarise the data is by a two dimensional frame:

<u>Employer</u>		<u>Employee</u>	
<u>Professional</u>	<u>Non-professional</u>	<u>Professional</u>	<u>Non-professional</u>
Self employed		Employee	
	Large proprietor		Manager
	Small proprietor		Foreman
	Self-employed		Employee

It should of course be remembered that 'manager' covers a range of OPCS-defined professional and administrative occupations.

This ranking may seem obvious to the reader: it should indeed do, if the argument is accepted that it is a manifestation of a general if crude consensus. While at one level then, this structure is not remarkable, two aspects are salient to the Hope - Goldthorpe scale. Firstly, the scale values and the commonsense view about employment status are in agreement. Secondly, the structuring of the scale into sectors within which approximate allocations were concentrated may also reflect this consensus: only detailed examination of the original data would show this. So that while a detailed, generally-shared evaluation of occupational title may not exist, a simpler consensus may exist, which the Hope Goldthorpe scale could claim to tap with success. There is some level of agreement on the crude structure, but disagreement over the fine structure.

In comparisons between scales derived in other societies or times, this crude structure provides an explanation of high levels of congruence. Specific single occupations can be a long way out

without interfering with the underlying similarity. Within industrialised capitalist societies, this crude structure consensus is probably well established, and even in widely different societies large parts of such a structure remain: in socialist societies, most of the proprietorial dimension is absorbed by the managerial, but the rest of the structure survives. Work in Poland suggests that the gap between skilled manual workers and professional workers does not exist - or rather that the gap exists at a lower level - but the broad structuring of occupations is retained. Exactly how the crude structure and the secondary dimension are collapsed into one dimension in the ranking task is of course not open to inspection: obviously the unusual situation of the experiment presents the ranker with a new problem which is different from his conventional cognitive activities.

The outline above may have reminded the reader of Parkin's view of the core reward structure of industrial society. It differs from Parkin in two important respects (Parkin, 1971, 19). Firstly, Hope and Goldthorpe's basic categories emphasise the employee/self-employed/employer dimension - or the ownership/managerial dimension - which Parkin virtually ignores in that section of his work. It has already been noted that in view of the fact that the large proprietors are numerically a minute stratum, their apparent importance in the scale is inflated. But since Parkin attaches great importance to the market position of occupations, the 'non-employees' who together make up nearly 10% of the male labour force require separate mention, both in terms of the managerialism/ownership debate and also in terms of the separate circumstances of their market positions (in that they sell their skills direct to the public, rather than to an intermediate employer).

The second point of divergence concerns the routine white-collar worker, who, in Fig. 2, is classed with the manual workers rather than the technical and professional workers. Parkin, drawing

heavily on the work of Wedderburn and Craig, argues that the white collar/blue collar line is still the major boundary in industrial society, because despite direct pay-levels, the former have sick pay schemes, pensions, longer paid holidays, more generous time-keeping and time-off rules, greater security and promotion prospects, annual increments, better working conditions, and less supervision than the blue-collar workers. (Parkin, 1971, 25-26). The boundaries between skilled and unskilled labour, and routine clerical and professional are regarded as not so crucial.

These manifest differences between the white and blue collar worker must arise from the superior market position of the former, according to Parkin's model, although he does not explicitly say so. This interpretation is based upon the way in which he discounts the long-term effects of 'traditional ideas', 'conventional forces' or 'societal values', leaving only the market forces as the explanation for the way that

'the relationship of between marketable skills and levels of rewards stand out quite unambiguously' (Parkin, 22-23).

when broad occupational categories are considered.

In rejecting this justification of the routine clerical workers' position several factors overlooked by Parkin can be presented. The sharp discontinuity between professionals and non-professionals, or senior management and junior functionaries, is every bit as abrupt as the manual/non-manual cut-off. (The same is also almost as true for skilled and unskilled manual labour). In the Hope-Goldthorpe categories, the routine clerical workers really are routine workers; supervisory and responsible posts are treated separately, leaving only the lower level clerking positions, who benefit much less from fringe benefits, flexible time-keeping rules, have smaller annual increments, greater supervision, and poorer promotion prospects. What is more, the technological revolution in office practice, combined with the strengthening of the manual workers' economic

position through the activities of organised labour (eg new pensions legislation) is working to reduce the advantages, of all white collar workers except low grade civil servants whose political influence via their own superiors has been turned to economic consolidation. What advantages the white collar workers do have, were won at an earlier period and in a different market situation (Mills, 1951; Lockwood, 1958).

In terms of the popular ranking that clerical workers receive in grading tasks, such as in the NORC and Hope-Goldthorpe scales, the skilled manual categories were ranked above and level with the clerical category. For example, in the latter scale, 'non-manual employees' come below printers, compositors, instrument makers, fitters, millwrights, tool makers and self-employed metal workers, electricians, hairdressers, watch repairers, butchers, shoemakers, tailors, upholsterers, plumbers, carpenters, jobbing builders, painters and decorators, building workers, fishermen, sportsmen, publicans, etc., quite apart from small working-proprietors, supervisors of manual workers, and technicians such as electrical fitters, post office technicians and car mechanics.

It may be that clerical workers do retain sufficient advantages in the marketing of their skills to retain their position above manual workers in the occupational hierarchy. If they do so, it is largely because of the historical and conventional forces which Parkin devalues.⁽⁶⁾ One example of these forces is the sociological habit, based on ideas of security, cleanliness, and pension-rights which dates from the 1930's and the Civil Service, of categorising white collar workers in the superior position. In a further 10 years, if present trends continue, the skilled worker with his 5 post-school years of apprenticeship as a marketable qualification may be more fully accepted by sociologists as out-ranking the clerk. The question of the clerk's position is taken up again below.

(6) As most 'routine' white collar workers are women, not least of these forces are sexist attitudes.

Collapsing the Scale

The Hope-Goldthorpe scale comes originally in two sizes: 124 categories and 36 categories. Since the former is an interval scale, it might be expected that the 'collapsed scale' of 36 categories would consist of blocks of adjacent categories, defined by natural breaks in the scores, apart possibly from some adjustment to remove the anomalies mentioned above. However, the collapse was carried out with qualitative differences of occupational sector (professional/non professional), major employment status, and in some unspecified cases 'by inspection of the patterns of inter-generational mobility between categories' (Hope and Goldthorpe, 1974, 132), as well as adjacency. Thus there are no amalgamations across 'major employment status divisions - ie, those of employer/manager /employee' (Hope and Goldthorpe, 131, original emphasis), nor across broad occupational divisions such as professionals, technicians, non-manual and manual workers. As a result, the order in which categories reappear in the 36-scale usually deviates from the original 124-scale. For example, 0601 (diplomats, ministers, senior civil servants) comes second on the 124-scale but 'tied 11th' in the third category of the 36-scale because they are treated as managerial employees. 2001 (masseurs, physiotherapists, dancing instructors) is ranked 24th on the 124-scale, but ties in first place in the 36-scale because they are treated as self-employed professionals: in the 36-scale, self-employment generally takes precedence over being an employee. If the 124 categories are also thought of as ranked in order within each of the 36 successive collapsed categories, the 36-scale produces short range deviations of order of 2 or less places in 65 cases, and has longer range deviations for the remaining cases, including 12 of 10 places or more, of which 3 are in excess of 20 places. Despite this, the 36 categories retain an ordering derived from the 'median of scale values of constituent

categories'.⁽⁷⁾ The point of these deviations is to so combine the 124 categories that the new categories both make sociological sense, and represent the original 124 scores.

Because the collapsed scale does not make many amalgamations across the major employment statuses, it retains much of the underlying employment status structure of the 124-scale, and those amalgamations that are made have an effect on only a small proportion of individuals in the labour force. Excluding for the moment the problem of those basic categories which were inherited from OPCS with mixed employment statuses, the collapsed categories in question are numbers 1, 5, 13, 14, 17, 19 and 20, which cover 15.19% of cases (Hope and Goldthorpe, 1974, 134-143). Of course, if the components were dis-aggregated, the proportion of cases which would be moved is very small indeed because the majority would remain in their original (but now 'purified') category. But since the order of the collapsed scale depends on median values, not on the number of cases, the order of the scale could be changed. For example, if category 17 was split by employment status into large managers, small managers, and foremen, the median value would appear to rise from 47.98 to 48.34, which is higher than category 16 (this assumes that one uses the median of the constituent 124 categories as calculated, not those given by Hope and Goldthorpe). In addition, the 36-scale would become a 48 category scale.

This picture is complicated by the cases of OPCS units with

(7) However the figures quoted do not appear to be this median value, (see for instance category 2, which consist of 1906 (scale value 76.71), 1801 (76.29), and 1802 (70.92): the 'median of scale value of constituent categories' is 76.29, but Hope and Goldthorpe give 71.00).

'Deviations' in this context means changes in absolute order, not in total relative position (see below p.

mixed employment status. These are combined with 'other categories' with a single employment status, except for 3901 (farmers, farm and forestry managers). Most of the cases consist of professionals who are in business on their own account, or occupations which involve supervision or responsibility without the formal recognition of foreman or manager status. Obviously these are marginal cases, and they raise the question of other points where employment status ceases to be a useful discriminant. The difference between being a self-employed professional (eg a GP) and being a small employer (eg a GP with a receptionist) is very slight. Similarly, lower levels of management such as in retailing are not clearly different from higher levels or foremen like those found in the steel industry, where the Scottish tradition has been to call junior production managers 'foremen'.

It follows that while it is desirable to be systematic in collapsing the scale, there is a level at which employment status discrimination can be sacrificed. In the case of the 36-scale, the number of cases requiring re-allocation is very small, but a scale specifically constructed from the sub-scales of the seven employment statuses would look very different. This is because if the process of collapsing is operated over seven sub-scales, rather than three or four, the combinations that become apparent are somewhat different, in that natural breaks and juxtapositions take on a new pattern. In this context, even a small number of cross-structural amalgamations can have a very considerable 'tuning effect' on the fine structure of a collapsed scale.

Similarly, if one treats industrial sector in a different way from Hope and Goldthorpe, the structure of the 36 scale becomes problematic. They have attempted to retain elements of situs differentiation which at first sight seem desirable. Thus farmers, farm foremen, and farm workers receive 3 categories separate from non-agricultural

occupations, while skilled manual workers are split into manufacturing; construction; transport; communications and services, and extractive industries; and service workers.

But if this differentiation is desirable, it should be carried through more consistently. 'Salaried Professionals' (category 2) contains engineers - presumably from manufacturing: accountants from commerce: town planners from local government: airline pilots from transport: and colliery surveyors from extractive industries. Admittedly, these would be minute categories if they could be separated (within the limits of the OPCS system). But more important, the semi-skilled manual workers are not separated on the same basis as the skilled: the former are only sub-divided into manufacturing, construction and extractive industries: and transport, communications and services. No justification for this partial application of the principle is given.

Service workers in particular receive special treatment. They are not specifically included as sub-divisions of skilled or semi skilled, although they are credited with managerial or foremen labels at the higher level. Instead, they stand alone as special cases, categories 25, 28, 34 (and possibly 29). The place of service workers is discussed below: at this stage the question is whether or not service workers require such a sophisticated treatment.

A solution to the situs problem which is both simpler and more efficient is available. Hope and Goldthorpe recommend that in collecting data

'with the intention of using the Hope Goldthorpe scale, it should be specifically provided for that each occupational description is accompanied by information on the industry of the establishment in which the individual in question is employed' (Hope and Goldthorpe, 1974, 72).

The researcher who wishes to analyse industrial situs effects can therefore use his industry codes direct to disaggregate any category at any level. This is a both systematic and consistent method, and it escapes the dilemma of a scale which has occupational categories that

are exclusively reserved for a specific industry. It also is more precise, in that the fit between occupation and industry is not so clearcut as the 36-scale requires. Any alternative scale would have to achieve at least similar levels of congruence with the 124-scale, while at the same time improving on the 36-scale's structural and industrial solutions.

An Alternative Collapsed Scale

In fact, constructing such an alternative scale presents considerable difficulties. Although certain collapsed categories are logically necessary, the numbers of individuals, who, for most purposes, would be found in them, is very small. The large proprietors category contains only 0.03% of male workers aged 20-64 in England and Wales, or 1 in 5,000. There are sociological considerations which might make it worthwhile to retain this minute category (which is in the 36-scale) but for almost all purposes such a category is redundant, despite its centrality to theories of capitalism. The reader who feels that omission does violence to his notions of stratification should be reassured: even with the category retained, it would, for general purposes, never be possible to say anything significant about it, except to note that it contained so few cases. Any specific study of large proprietors would obviously treat them as a separate category, but could do so without greatly affecting the residual category. In other cases such as an intermediate category of the same size, 'lower' professional small employers' (eg designers and draughtsmen), it is easier to justify amalgamation. Here it would be with 'self-employed professionals' (osteopaths, language teachers, entertainers) because its sociological justification for separate treatment is weaker, and the combination disguises a mobility step again for only 1 in 5000 men. In practice, this kind of amalgamation has been found to be desirable in eight cases. This

would leave only two small categories containing less than 1.0% of the workforce 0.71% and 0.79% (36 and 40 in 5000 respectively) whereas the 36-scale has five even smaller categories of less than 0.5%: 0.2%: 0.23%; 0.26%; 0.33%; and 0.41% (1, 12, 13, 17 and 21 in 5000 respectively). It is worth noting that the 124-scale contains 39 categories which each deal with less than 5 in 5000 cases and in all 86 categories which each deal with less than 25 in 5000 cases. If these were all simply combined into two categories (one high and one low); the resulting collapsed scale would have 40 categories, would accurately handle almost 85% of cases, and not seriously distort the remaining 15%. It may be felt that a scale which allocates 70% of its categories to 15% of cases has perhaps a misplaced emphasis, despite the need to cover the entire range of occupations.

If the very small categories are amalgamated in the production of a new scale, the amalgamations in the list at the end of the Appendix become necessary (this table should be read in conjunction with Hope and Goldthorpe's book). As noted earlier, ten of the original 124 categories contain more than one employment status:

1701)	'large or	2001	'large or	1904)
)			small employer'	1901)
))
1702)	small employer,			) 'foreman
)				) or
1703)	or self employed	3901	'large or small	2501) employee'
)			employer, or)
1704)	with no employees'		large or small	2801)
			manager'	

Luckily, each of these categories is generally dominated by one type of employment status in the labour force, so that on combination with other categories, the dominant employment status is reinforced. Thus, parochial clergy (1704) is combined with other self-employed professionals with no employees, since it is the most common situation that the parochial clergy do not themselves have employees, and even if they do, they are seldom in business like other

small employers.⁽⁸⁾ About 5% of individuals are dealt with in this way in the 10 categories.

The collapsed scale which evolves as a solution to these various constraints is given at the end of the Appendix as List 2.

Although all three scales are valid alternative solutions to the original rankings the two collapsed scales can be seen as setting up new rankings which deviate from the 'correct' 124-ranking. Alan Anderson, from the Statistics Department at Aberdeen University, has pointed out that these deviations can be seen as either 'absolute' or 'relative': in the collapsed scale, absolute ranking takes the correct position of a category to be n-th if it was n-th in the original scale regardless of which other categories are ranked as k, l, m, or p in the collapsed scale. Relative ranking only accepts the first category as being correct at n provided it is still being ranked lower than k, l and m, and higher than p. A deviation in absolute terms is the number of places in the ranking that a category is moved. A deviation in relative terms is the total number of relationships which have been inverted.

The computation of Spearman's rho is based on the former assumption, while that of Kendall's tau is based on relative deviations.

(8) Of course in Scotland where ministers are not self-employed, they would still be coded as 1704 in order to reflect their generally higher position, rather than 1803. (Because of the anomalous inclusion of Bishops in 1803 which is Salaried Clerics, mainly such as missionaries and chaplains, the application of the Hope Goldthorpe scale in Scotland is a properly Presbyterian one!).

A Comparison of the two collapsed Scales

In constructing the '20-scale', four main procedures were followed.

- a) With the exceptions already noted, no amalgamations whatsoever were made across employment status.
- b) Categories were combined firstly by inspection only from an unlabelled set of points as a graph. In practice this meant that a gap of about 2 scale-points was considered to be a natural break. The manual working class could not be conveniently collapsed by this method. The inspection was carried out independently by the three members of the SMS Research Team; agreements were then reached over differences of perception, to produce a single solution.
- c) The new categories thus derived were then inspected with a sociological framework in mind. Each cut-off point was re-considered in order that further amalgamations could be made if two separate categories contained occupations believed to be similar in terms of income, qualifications and work task. At the same time, other categories were sub-divided using the same principles. This yielded 30 categories.
- d) As explained above, very small categories were re-combined, in such a way as also to remove remaining anomalies. This yielded 20 categories.

This summary of operations, like those in The Social Grading of Occupations is recognised to be imprecise. Ideally, space permitting, one would need to record for each category the justification for its boundaries. However, this is redundant unless there is disagreement over the categorisation, and such possibilities are better dealt with on an individual basis.

The 20-scale has several advantages over the 36-scale. Its principles of construction are more consistently applied, and deviations from the clearly indicated and quantified. It is therefore both a simpler and more precise analytical tool. At the same time, its 'fit' with the 124-scale remain very similar to that of the 36-scale: the new version results in 72 short range 'deviations' of 2 places or less, compared with 65. It has 12 deviations of over 10 places, as against 12 of over 10 places and 3 of 22 places or over in the latter.

A more systematic comparison can be made by use of correlation coefficients.

Although Pearson's product-moment correlation deals with scores, rather than ranks, it is concerned with differences between pairs of scores in a fixed order so that it also draws an absolute ranking. In comparing the two collapsed scales with the 124-scale, it is not the magnitude of the coefficients which is important, but the relative similarity of the scores for the two collapsed scales.

Correlations were computed in two different ways, firstly with the 124 categories given their new order from 1 to 124 and disregarding the effect of collapsed categories, and secondly treating the new ranking as 20 (and 36) tied ranks. On each of the assumptions the similarities between the two collapsed scales correlation is very close.

Table 1: Correlations between Collapsed Scales and the 124-scale*

1. Assuming occupational categories still all ranked 1 to 124			
	36 scale and 124 scale	20 scale and 124 scale	36 scale and 20 scale
Spearman	0.9848	0.9888	0.9746
Kendall	0.9202	0.9347	0.8937
Pearson	0.9833	0.9897	0.9771
2. Assuming occupational categories to be 'tied' by collapsing**			
	36 scale and 124 scale	20 scale and 124 scale	26 scale and 20 scale
Kendall	0.8992	0.8969	0.8769
Pearson	0.9506	0.9546	0.9669

*All values significant at 0.001 level

** Spearman's r not calculated for tied data as unsuitable.

The performance of the 20-scale on the assumption of tied categories is better than expected, since a large number of categories (eg. 36) permits a more accurate representation of the original, than does a smaller number of categories. However the apparent magnitude of the correlations is something of an illusion, as noted elsewhere.

The differences in definition of mobility on the two scales

is somewhat greater than might be thought from Table 1. If, say, two of the original 124 occupation categories are separated in one collapsed scale but placed in the same new category in the other, a transition between the pair is mobility in the first case, but not in the second. By extension, upward mobility in one version can appear as downward mobility in the other. In theory, the absolute maximum number of such differences is very large indeed, but in this case, most differences are short range, their effect being mainly confined to a range of one or two categories. In all, about 750 possible transitions between pairs of the original 124 occupation categories are treated differently as mobility by the two collapsed scales. From this it will be concluded that the alternative collapsed scale, although representing the original rankings as 'accurately' as the 36-scale, does in fact produce it in a different form, and one which has several other advantages.

One of these is that both the range (of score values) and the size (ie the proportion of the workforce) of the categories have been brought into better balance. The 36-scale category range extends from 0 to 16.8 scale points. Although its 13 smallest units are all single 124-categories (whereas the 20-scale necessarily has more combinations) the 10 largest units all exceed 5 points, as Table 2 shows: the mean range of the 36-scale categories is 3.60 points while the mean size is 2.78%.

Despite the 20-scale's slightly higher average range, it goes some way to limiting the extremes (0 to 12.73, with a mean of 5.61). The same small improvement applies to size of category. The 36-scale range categories from 0.02% to 10.4% of the total work force, whereas the 20-scale runs from 0.71% to 8.81%, and has units of a more consistent size. The 36-scale has 5 units of less than 0.5% (less than 25 cases in 5000): 11 of the 36 categories each contain less than 1%

Table 2: Range and Size of Scale Categories (ranked large to small)

	Range		Size (%)	
	36-scale	20-scale	36-scale	20-scale
1.	16.80	12.73	10.40	8.81
2.	14.50	12.61	7.68	8.13
3.	12.36	12.07	6.33	7.68
4.	11.37	10.72	6.11	7.53
5.	10.18	10.33	5.89	7.40
6.	7.66	8.61	4.97	7.00
7.	6.58	7.67	4.78	6.72
8.	6.43	5.86	4.04	6.67
9.	5.79	5.43	3.69	5.89
10.	5.23	5.19	3.69	5.06
Largest	16.8	12.73	10.40	8.81
Mean	3.60	5.61	2.78	5.00
Smallest	0.00	0.00	0.02	0.71

of cases, in total 5.82% of the labour force. The 20-scale has no categories of less than 0.5%, and only two less than 1% of cases. Its smallest 11 categories cover 33.22% of the labour force.

The rankings in both collapsed scales have been made on simple unweighted averages. That is to say, when two categories as in the 124-scale are combined, their joint score has been taken as the mean of the two category scores, regardless of the fact that one category could be much larger than the other. In view of the different proportions of the workforce in the 124-categories it might be thought desirable to obtain an alternative ranking for collapsed categories by weighting the scores of constituent 124-category occupations by their relative sizes, rather than using the simple mean or the median. It seems probable that the two rankings obtained in this way would in fact be fairly similar to the simple rankings. The cases most affected

are likely to be supervisors, the core of the self-employed (the small man in a one-man business), and the top and bottom of the skilled manual categories. These are chiefly in the scale value range of 50-30, which contains about 50 categories. The inversions within each scale arises out of the very small differences in scale values: they stem directly from the results of the ranking exercise, in which white collar employees are ranked below several skilled manual groups - in a sector of the scale where most supervisors are located. It is in this part of the scale where rules such as 'no manual worker can come above non-manual workers', or 'self-employed takes precedence over employed', expressing sets of sociological assumptions about the world, are critical in the construction of both collapsed scales. A weighted average ranking would make less sociological sense, which is why the simple average has been used.

A Socio-economic classification

Clearly, the foregoing discussion shows that the 20-scale has a number of small advantages in addition to its main purposes, which are to retain the basic structure, and to be more consistent in its principles of construction. The 20-scale has two further advantages for most purposes. Its main attraction is that it typically sub-divides commonly used groupings into two or three sections. Thus 'skilled manual workers' have three categories and 'supervisors' have two. If a researcher wishes to go beyond the level of socio-economic class - ie. five or seven categories - the 20-scale provides a simple way of taking the next step of sub-dividing these basic categories. (The 36-scale is more varied in its sub-divisions, and creates too many cells for the purpose of most studies).

This is no small matter. When Goldthorpe wishes to move from small categories to socio-economic classes as units of analysis, he

encounters considerable problems of inversion (Goldthorpe, 1980, 39-42). But the 20-scale, with one exception, does not involve inversions. Thus transitions between levels are simple, and even a class/scale hybrid is easy to set up, if one sector of the socio-economic class hierarchy is of particular interest. Any number of categories can be used from 2 to 20 to suit the data, without worrying about misclassification, or introducing modifying statements to cover the cases of inversion. Table 3 gives the two class systems and the two scales: the classes are not the same in both scales, and even where they are similar, the categories contained within them are different.

Table 3: Two class hierarchies and their scale compositions.*

36-scale			20-scale			
cats.	Composition	size	class	cats.	Composition	size
1-4; 7	Professionals, large proprietors and managers	9.86	I	1-4	Professionals, large managers and proprietors, senior supervisory staff	13.45
5-6; 8; 10; 12; 14; 16	Semi-professionals, technicians, small managers, white collar supervisors	13.16	II	5-8	Semi-professionals, technicians, small managers, small proprietors	13.37
21; 25; 28; 34	Routine non-manual and service workers	11.28	III	9-10; 12-13	Lower technicians, self-employed artisans, supervisors of manual workers	13.40
13-19; 29; 36	Small proprietors, self-employed artisans	8.06	IV	14	Routine non-manual workers	7.68
15; 17; 20	Lower technicians, supervisors or manual workers	8.46	V	11; 15; 16	Skilled manual employees	20.69
18; 22; 23; 27; 30	Skilled manual employees	21.35	VI	17-18	Semi-skilled manual employees	16.34
26; 32; 33; 35	Semi-skilled and unskilled manual employees	24.22	VII	19-20	Unskilled manual employees	14.12
11; 24; 31	Agricultural categories not included	2.73	-	-	-	-

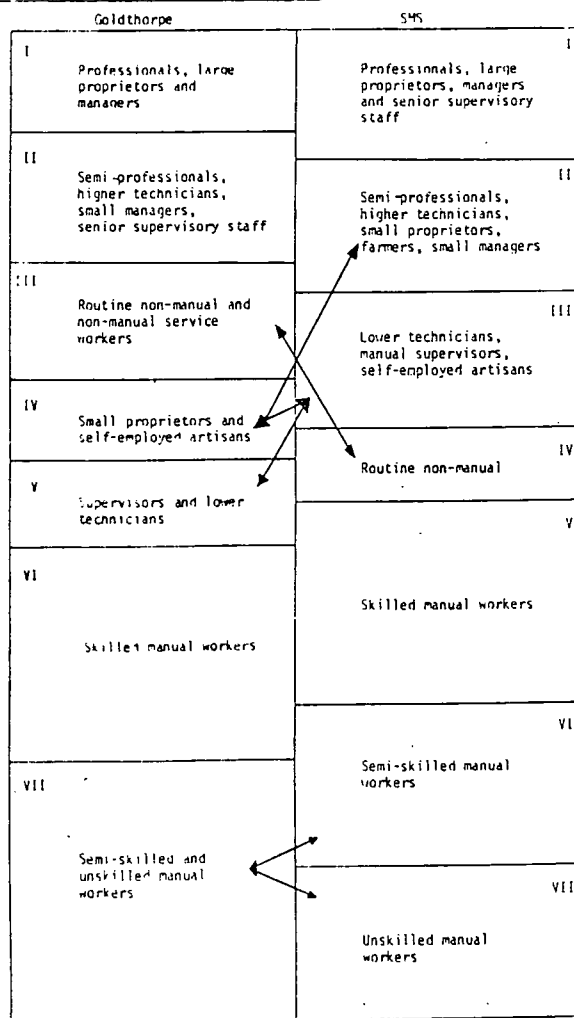
* This account of the class structure is drawn from Goldthorpe.

Two items in this tabulation should not be overlooked. Firstly, the 36-scale has to be very much re-arranged to construct the classes,

so that any analysis of mobility which compares patterns at the class level with patterns at the category level is based on two completely different hierarchical structures. Any similarity would be therefore an unexpected result requiring explanation. In the 20-scale, the reverse is true. Secondly, the classes formed from the 36-scale vary greatly in the proportion of workforce they contain: 24.2% to 8.06% with 5 between 8 and 13%. The 20-scale's classes range from 20.69% to 7.68, with 5 between 13.37 and 16.34. These more even-sized classes make breakdown and comparison more easy.

A simple representation of the class structure is given in Figure 3.

Fig. 3. Two Socio-economic class structures



The consideration of class and categories can be treated at two levels as before, the crude and the fine structure. Goldthorpe perceives three classes between manual workers and the top two classes of professionals, semi-professionals and proprietors: this study advocates only two intervening classes. The consequences are that, on the latter arrangement, small proprietors are allocated to Class II, and all the remaining categories are treated as one class, with only routine white collar workers separated. Goldthorpe however, makes the further distinction within this area, with self-employed artisans in one class and the employed members of the same sector in two other classes. In doing this he is forced to promote several implausible categories above foremen and skilled workers (Class V and VI) into Class III. These promotions include doormen, billstickers, shop assistants, street vendors, traffic wardens, hairdressers, butlers, barmen, waiters, counter-hands, fairground showmen, bookmakers, window cleaners, sweeps, odd job men, hedgers and ditchers, hawkers and street corner newspaper sellers.

These occupations are all either self-employed or service work, both of which attributes Goldthorpe regards as being a sound basis for a socio-economic classification. However, if the dimension of self-employment is retained only to represent some idea of proprietorship, rather than including incidental national insurance conveniences and casual labour; and if service workers are treated by skill-level (leaving their industrial identity to the industrial coding as advocated above), the Goldthorpe's classification can be seen as having an over-emphasis on ownership and situs effects. While there is a justification for a separate treatment of small owners this is less so in the case of the non-building trades' equivalent of the 'Lump'.

The second area of disagreement is over the treatment of semi-skilled and unskilled workers. Goldthorpe does not differentiate the

two in his class scheme. Many researchers will wish to investigate differences between these two groups (even if they are found to be very similar). The class categorisation advocated here allows this investigation, but the Hope-Goldthorpe choice of representative titles makes this somewhat unsatisfactory.

Indeed, it is not unreasonable to ask why Goldthorpe used the 36-scale as the basis for his 7 classes at all? He writes that

'the aggregation of categories of the (36) Hope-Goldthorpe scale in order to form the classes was carried out without reference to the position of the categories in the ordering of the scale... when we describe classes III, IV and V as 'intermediate', we refer, as we earlier noted, to their structural location, and not to their position according to the Hope-Goldthorpe Scale.' (Goldthorpe, 1980, 42, emphasis added).

The only 'advantage' of his approach is that there existed 36 units to use as building blocks, and we have already seen that these are not necessarily the best collapsed version of the 124-scale. Goldthorpe regards his classes as being defined by their 'structural location', and not by any 'general desirability' score. By structural location, he seems to mean that in the members of each class

'will typically share in broadly similar market and work situation, which following Lockwood's well-known discussion, we take as the two major components of class position. That is to say, we combined occupational categories whose members would appear, in the light of available evidence to be typically comparable on the one hand, in terms of their sources and levels of income, their degree of economic security and chances of economic advancement; and, on the other, in their location within the systems of authority and control governing the process of production in which they are engaged and hence in their degree of autonomy in performing their work tasks and rules.' (Goldthorpe, 1980, 39, original emphasis).

Goldthorpe explains that these principles of class construction (with which we have no argument) are possible because the Hope-Goldthorpe categories combined occupation and employment status (ibid, 39). However, as we have seen, the collapsing of the scale into 36 categories pays only limited attention to preserving these separate employment statuses, and certainly less than the 20-scale. Furthermore, we have

argued above that the 'general desirability' scores can be plausibly explained as the outcome of ranking the employment statuses, so that an improved method of collapsing the Hope-Goldthorpe scale gives us a class model which satisfied both sociological demands and popular consciousness. In other words, the 20-scale and its 7-fold class scheme have a stated relationship which does make them directly interchangeable.

Nonetheless the SMS scale is also open to some of the criticisms of Goldthorpe's class schema raised by Penn (1981). Although the latter's critique to some extent misunderstands the construction of Goldthorpe's (see Goldthorpe, 1981) seven classes, it does show that

'The Nuffield class categories do cut across significant social relationships that Goldthorpe et al should regard as class relationships: (i.e. associated with market and work situations' (Penn 1981, 269).

HG Class I confounds the bureaucratic power of managers and professions with the ownership power of proprietors; HG Class II mixes the clergy, entertainers, lab. technicians and draughtsmen; while HG Class III is more concerned with service industry than class per se.

The SMS 7 class schema also does not differentiate the capitalist class from the lieutenant class, in that any member of the former in the national sample was coded to the latter (class I). However, as the analysis in chapters 7 and 9 shows, the existence of a very small capitalist class or elite outside of the main occupational classes is explicitly included. 'Class 0' would, given self-weighting in the sample, have yielded 3 or 4 cases.

The treatment of petty property in the SMS scale was also influenced by the idea of scale. Small proprietors, perhaps the most interesting group, are amalgamated into Class II as category no. 7,

together with farmers and farm managers: they represent just over 3% of the sample, or a fifth of Class II. While in the main analysis they have not been separated out, at points in the text they have been identified. The limitation of the class scale can thus be remedied by reference to the more specific categories, as indicated above. In contrast to the HG classes, the petty bourgeoisie are located near the top of the hierarchy, rather than below routine white-collar workers.

It must be admitted, however, that the SMS class schema is insensitive to property and ownership at its main level of 7 classes. It is in this respect that it reflects its ranking pedigree most clearly, and tends to fall away from the model of work and market situation that underpins the basic conceptual approach. Of course, much of the analysis in the present work has used a broad framework of groups of classes: in presenting the general picture important but small sub-groups can receive but passing reference. On balance, the author prefers this limitation to the problem of the Nuffield class schema in which the petty bourgeoisie are committed to the lower (?) part of the never-never-land between the Service and Manual classes, in close company with the self-employer builder's labourer and his like.

This may still seem something of a purist argument for devising yet another class schema, but its implications are very important for what kinds of analysis can be carried out. Goldthorpe finds himself in the positions that his class scheme can

'not then be regarded as having - nor should it be expected to have - a consistently hierarchical form ... We must always take care to consider whether or not it is appropriate to describe (mobility) as being 'upward' and 'downward'. In general, we shall speak of upward mobility only in the case of movement into Classes I. and II.' (*ibid*, 42)

In contrast, by establishing a reasonable connection between desirability and class position, the alternative schema used in the present

study does make a much stronger assumption about hierarchy, and therefore one not only knows which way is up or down, but knows it for each of seven classes. We are not restricted to only one crude measure of mobility, ie between Classes I and II, and rest - or more accurately, given the actual uses to which Goldthorpe puts his data elsewhere in the book, to mobility calculated across 3 broad classes, namely the 'service class', the manual working class, and a residual class of everybody else in between.

Conclusions

In both collapsed scales, the popular ranking has been used as a moderately good source of evidence about popular opinions in an attempt to construct a classification which combines expert (sociological) judgement with hard data on 'what the real world thinks'. But the 124-scale contains 'errors' - such as the inversions of large and small stockbrokers. It also contains equivocal results, in that scale values only marginally differentiate some cases. For these reasons, the main utility of the 124-scale for most researchers is to provide information for the construction of crude structures, while its finest structure is relatively unimportant. It was for this reason that so much attention was given to the rules of construction and the underlying structure of employment status in the scale. Similarly, the 20-scale and class scheme represent an attempt to confront this exercise in hybridisation in an explicit and systematic way, which as a spin-off has produced what the present author feels are two more generally useful sets of categories.

The 20-scale allows a more straightforward means of relating the results of a popular occupational ranking to the different model of a small number of socio-economic categories. Although this transposition can be made more smoothly than with the 36-scale and Goldthorpe's classes, and although both the 20-scale and the

proposed socio-economic classification have been constructed by the application of certain sociologically-informed rules, it must be recognised that the congruence of the scheme is only a pragmatic one. Two different conceptual schemes have been adopted which are technically compatible, but there is no absolute reason why this should be necessary, despite its utility. The theoretical underpinning of each concept should not be confused.

A class scheme involves none of the scale's assumptions about popular consciousness, nor necessarily anything about similarity of life styles, or the general desirability of a given class, despite both class and ranking being based on occupation. For example, Parkin's view of the core reward structure of industrial society is a long-way from Hope and Goldthorpe's conception of the 124 point scale, even though both classifications draw on occupation and related income as their major components (and even though, as has been argued above, the two may be more similar than at first appears). In constructing seven classes, the present author has simply drawn on conventional sociological practice to identify a small number of broad groupings. It is true that the relegation of routine clerical workers, and promotion of supervisors and small proprietors might nevertheless require the kind of justification give above. But the selection of these classes was made independent of the order of the scale categories. It was at least theoretically possible that the popular ranking of clerical workers could have been with semi-professionals or with semi-skilled categories, so that the 20-scale and the seven classes would not have been congruent. And of course this is exactly what did happen with category 15, (the most highly-rated skilled manual workers) whose popular ranking is discounted in the construction of the seven classes.

The advantage for mobility research of the close fit between the 20-scale and the classes is not only that one can be seen as a way

of sub-dividing the other. The added advantage is that the same structure has been derived from a set of sociological assumptions and from an 'independent' ranking. It has of course been argued that the ranking has been conditioned by the quasi-sociology of the OPCS employment statuses, together with the setting up of categories by 'experts', and even then to be based on a very low level of agreement. But the evidence in the form of the 124-scores is compatible with the sociological concerns in the collapsing process and the net product is one which contains no great anomalies (if one overlooks the occasional strange combination (labour exchange manager with senior civil servant, cabinet minister and diplomat, or press photographer and recording engineer with male model, billsticker, liftman and cloakroom attendant) due to the OPCS system.

The 20-scale and the class schema are both treated as composite 'synthetic' categorisations. The dimensions that they represent are imprecisely specified, and although there may be some underlying differences, the two classifications are assumed to be interchangeable because their similar synthetic natures produce almost exactly the same hierarchy of occupational categories.

The 36-scale is less satisfactory in this respect. If the earlier argument is accepted that it is in fact a synthetic scale, then it should be more congruent with the class model, as in the 20-scale. On the other hand, if the 36-scale does reflect some non-class dimension - such as knowledge about the general desirability of occupations - it can be treated as representing a different dimension and no congruence need be expected. It follows that mobility between classes, and mobility between desirable categories are completely different transitions and unless Goldthorpe explains how a popular view of general desirability is related to class structure, it is not possible to see how his 36-scale directly informs the conventional stratification debate. At the very least,

his seven classes and his 36-scale cannot be used interchangeably, as if the 36-scale was simply a more detailed version of his seven classes (see for example Goldthorpe, 1975, 10-12): although Goldthorpe recognises the important difference between his two schemes, particularly in his more recent writing it may not always be clear to the reader.

It may be felt that the congruence of the 20-scale and the class structure obscures the basic issue of why a popular ranking, with all its attendant problems of disagreements, is thought at all suitable for mobility research. A popular ranking is a sociological artefact, which can only marginally be regarded as grounded in the subjective experiences of the population at large. It is also necessarily a synthetic measure. The alternatives, such as use of objective indices like income or education, involve severe technical difficulties, so that once again we are faced with 'making do with what we've got'. This appendix has attempted to draw out some of the implications of the grading scale approach so that it can be used in a slightly more satisfactory and consistent way, but it is a sobering thought that in the end, the general consciousness of social mobility will be defined by the construction of scale categories on such varied bases as those discussed here.

LIST 1. Amalgamation across the 124-scales's employment status structure

1. 0601 (Managers: Administrators and Officials) has been included with salaried employees (1906, 1801, 1802). However, 0601 contains only one ranked managerial title out of five, so that the 0.28% reallocation is essentially combining highly specialised "professionals".
2. 0103 (large employers) has been included in a category which mainly contains small employers (1701, 1702, 1703 and 0903). But since the 124-scale inverts 0103 and 0903, this serves to correct an anomaly. Size of amalgamation : 0.01%.
3. 10 categories of large proprietors, (0102, 0303, 0101, 0301, 0104, 0304, 0402, 0201, 0201, 0302) which together only contain 0.02% of males 20-64 have been included with managers of large organisations (0602, 0603, etc.)
4. A large combination of categories has been made, consisting of self-employed professionals (2102, 1904, 2101; 0.23%), small employers (2001, 2002; 0.02%), managers in small organisations (1402, 1404, 1401, 0608; 2.59%) and senior supervisory staff (2201, 2202; 0.53%). This is effectively a mis-classification of 0.38%, 0.02% and 0.53% cases in order to produce one category of an adequate size.
5. 3 categories of large proprietors (0401, 0404, and 0501) with lower 124 scores have been included with Proprietors of small organisations (1202, 0902 etc.). This is a transfer too small to appear in the 1% sample figures. 3502, 3401 (Self-employed, no employees, 0.17%) have also been included with 1202, 0902, etc. (Small employers), with similar levels of skill and capital requirement. But this also serves to correct an anomaly whereby the self-employed would have come above the employers.
6. 1601, 1501, 1405 (small managers, 0.36%) and 0801 (Large managers of services 0.11%) have been included in the main supervisors (of manual workers) category, again for reasons of category size. The scale of management involved is similar to that of most supervisors.
7. 1203, 1301 (Small employers, 0.08%) have been included with 3402, 3601, 3701, etc. (Self-employed, no employees).
8. Categories 3501, 3801, and 4002 (self-employed unskilled workers, 0.55%) have been included with 3204, 3301 and 2401 (employed unskilled workers). In the same way, 3703 (Unskilled self-employed, 0.23%) has been included with 2(01 and 3302 (Unskilled employees). 3703, at scale-value 17.52 is almost 10 points from any category other than 2901 and 3302, and 12.5 points from the next self-employed category.

Number affected by amalgamations: 2.74%

LIST 2: An Alternative Collapsed Scale1.** Professional Employees, Managers and Officials

0601	4	79.53	Diplomats, ministers, MPs, senior civil servants, managers of labour exchanges
1906)		76.71	Airline pilots and air crew
1801)	7	76.29	Accountants, university staff, doctors
1802)		70.92	Engineers, town planners, scientists
		75.86	5.06%

2. Professionals as small employers (Except 0103, Large Employers,
(0.03%)

1701)	1,2	82.05	Doctors, lawyers, accountants
1702)	or 3	79.94	Dentists, Architects
1703)		73.06	Engineers, pharmacists, surveyors
0903	2	71.74	Stockbrokers and finance agents
0103	1	71.72	Stockbrokers and finance agents
		74.70	0.71%

** The 4-digit number is the reference number for the Hope Goldthorpe 124 categories, and it is followed by a one digit employment status code, ie

1. employer of more than 25 employees
2. employer of less than 25 employees
3. Self-employed, no employees
4. manager in organisation employing more than 25 employees
5. " " " " less than 25 employees
6. foreman/supervisor
7. employees

The next four digit number is the scale value of the category in the 124-scale. The occupations which follow are a selection of typical examples: they are not a comprehensive list of all those which were actually ranked. Each category is preceded by its summary title, and its collapsed rank number (1-20), and followed by its mean of constituent category scores (75.86 to 19.61) and its % of the male labour force of England and Wales, aged 20-64, (this includes minor approximations for armed forces drawn from the Nuffield fieldwork results). If the reader encounters any allocations which seem implausible, he is advised to check the constituent ranked occupations (the individual scores of which are unfortunately not given in the original) and the proportions of each 124-category in the labour force (Hope and Goldthorpe, 1974, 28-46. and 96-108), and to consult the OPCS unit group 'reverse listing'.

3. Managers and Proprietors in Large Organisations - 1

0602)	72.19	Managers in the media, producers, directors
0603)	69.14	Local Authority Senior Officers
0607)	4 68.98	Managers in commerce and public utilities, office managers
0605)	68.66	Sales and general managers
0609)	67.62	Senior professionals in Local Authority Dept.
0701)	67.24	Senior Security officers and managers
4301)	67.17	Officers in Armed Forces
0102)	66.86	PRO, commercial artists, film producers
0303)	1 66.45	Mine and quarry owners
0101)	66.24	Proprietors of large hotels, owner-operator of boats & planes
0606)	66.11	Managers in manufacturing and heavy industry
0604)	4 65.85	Managers in transport and communications
0301)	64.04	Haulage and coach contractors, radio, TV, motor engineers shop owners
0104)	63.75	Food wholesalers and retailers, coal merchants, export agents
0304)	63.29	Manufacturers, bakers, printers
0403)	1 62.83	Building site contractors and construction specialists
0402)	61.68	Gravel, slate extractors, well borers
0201)	60.57	Estate, travel agents, restaurant, betting shop owners
0302)	60.12	Other building contractors, finishing trades
	65.73	4.16%

4. Senior Supervisory, Technical, and Managerial (In Small Organisations)
Staff (+ 0608, large organisations, 0.10%)

2102	3	69.56	Osteopaths, chiropodists, language teachers
2001	1,2	65.25	Masseurs, physiotherapists, dancing and riding instructors
1402	5	65.18	Headmasters, welfare managers
2201	6	64.30	Police officers, superintendents of phone exchanges
1002	2	63.07	Designers, draughtsmen, mapmakers, technical illustrators
1704	1,2	62.33	Parochial clergy
	3		
1404	5	62.19	Managers in public utilities, commerce, manufacturing
2101	3	60.89	Artists, journalists, entertainers
0608	4	59.23	Managers of theatres, hotels, football clubs, childrens homes
1401	5	57.81	Managers of theatres, ballrooms and publishing
2202	6	56.95	Supervisors of clerical sections
	62.43	3.52%	

5. Technical/Semi-Professional Employees

2301)	7	64.84	Traffic controllers, police constables, radio operators
1903)	6or7	64.05	Laboratory and other technicians
1803)		63.88	Salaried and non-parochial clergy
2302)	7	61.85	Draughtsmen and technical illustrators
1904)	6or7	61.14	Teachers, welfare workers, tax collectors, X-ray operators
1901)		59.38	Journalists, actors, musicians, art-workers
1902)		55.43	TV and political officials
3102)	7	54,12	Electrical, radar and radio engineers
	60.54	7.00%	

6. Farmers and Agricultural Managers

3901 1,2,4,5 58.15 Farmers, farm managers, forestry managers

58.15 0.79%

7. Proprietors of Firms Employing Less than 25 Employees (+ 3502 & 3401),
no employees, 0.17%; and + 0401, 0404, 0501, More Employees, 0.00%

1202)	2	57.24	Warehousemen, gardeners, inquiry agents, bottlers
0902)		56.50	Coach, garage, hotel proprietors, landlords, ironmongers
3502	2	56.06	Designers, rent collectors, commercial travellers
1001	2	56.02	PRO, estate agents, cafe, club owners, debt collectors
0401	1	55.53	Bodyshop owners, glue-screw-dress-makers, scrap merchants
1102	2	54.59	Metal workers, shoe repairers, printers, organ builders
1103	2	54.59	Radio TV engineers, electricians, hairdressers, taxi owne
3401	3	54.28	Owner-operators of boats and planes
0404	1	53.93	Warehousemen, dry-cleaners, packers, gardeners
0901	2	53.87	PRO, commercial artists, scriptwriters, pop musicians
1101	2	53.85	Building and finishing trades
1201	2	52.89	Specialist manufacturers, boatowners, glaziers
0501	1	52.35	Cleaners, dockers (with gang)

54.75 2.75%

8. Managers in Small (Service) Organisations - II

1403)		55.20	Hotel, hostel managers, TV officials
1407)	5	54.99	Managers of shops and small manufacturing firms
1406)		52.80	Office managers

54.33 2.83%

9. Technical/Skilled Employees

3104	7	50.90	P.O. Engineers, electronic fitters, mechanics, electrical maintenance men
3105	7	50.35	Professional sportsmen, instructors and coaches

50.63 3.31%

10. Supervisors, and Managers of Small Service Organisations - I
(+ 0801, Large Organisations, 0.21%)

4401)		49.26	N.C.O's Armed Forces
3002)	6	48.91	Foremen for tool rooms, and maintenance in production and transport
3001)		48.55	Foremen in furniture making, printing, watch repair
1601	5	48.51	Fishing skippers, fish shop managers, packers, scrapdealer
3007)		48.34	Foremen in mining, mates on fishing vessels
2203)	6	48.15	Head porters, chief warders, store supervisors, baths superintendents
1501	5	47.61	Mobile shop, stall, security work supervisors
3003	6	47.49	Foremen in public utilities, docks, P.O.B.R. etc.
2501	6or7	47.32	Housefathers, hostel supervisors, hotel inspectors
3008)		46.80	Foremen in Building and Civil Engineering
3004)	6	46.51	Foremen in shipyards, heavy industry, pumping stations
0801	4	45.58	Warehouse, dispatch and laundry managers, chief storekeepe
1405	5	43.40	Bar, baths, laundrette, ballroom managers, wardens

47.42 3.69%

11. Skilled Employees - I

3106 7 45.57 Fitters, welders, tool makers, mechanics
 45.57 5.89%

12. Self Employed Without Employees (+ 1203 and 1301; with employees 0.08%

3402) 46.62 Landlords, taxi owners, filling station owners
 3601) 45.94 Professional sportsmen and coaches
 3701) 3 43.98 Inshore fishermen, stone setters and dressers
 3603) 43.25 Painters and decorators, floor layers, garden furniture maker
 3602) 42.70 Mechanics - radio, TV, electrical, motor, machines, barbers
 3702) 41.43 Cheese and toffee makers, fabric restorers, charcoal burners

 1203 2 41.25 Stall-holders, rag and bone men, mobile shop, dry cleaners
 3604 3 41.18 Tailors, bookbinders, basket makers, piano tuners, pottery
 decorators
 1301 2 40.93 Car washers, dockers, cleaners, tarmac layers
 3403) 38.96 Pig dealers, confectioners, off-licensees, 2nd hand cardealer
 4001) 37.18 Beekeepers, nurserymen, small holders, pig and dog breeders
 3605) 3 35.24 Taxi owner-drivers, carriers, driving instructors, sandwich
 sellers
 3606) 33.89 Grinders, key cutter, fellmongers, hand weavers

 40.96 4.76%

13. Supervisory Employees - II

3005) 43.72 Foremen in paint factory, brewery, tannery, woolen mill,
 dairy, waterworks
 3006) 42.08 Gardening, warehouse, laundry foremen head postmen head porte
 4101) 6 40.92 Farm & poultry foremen head keepers foresters forestry warden
 1905) 37.14 Bus, platform inspectors coal merchants goods (BR) foremen
 2601) 36.05 Head waiters, club stewards, butlers, canteen supervisors

 39.98 1.64%

14. White Collar Employees

2303 7 39.85 Clerical specialists, library assistants, sales reps.
 39.85 7.68%

15. Skilled Employees - II

3101) 40.93 Compositors, furniture, watch or camera repairers
 4501) 38.68 Other ranks, armed forces
 3103) 7 37.63 Gas fitters, finishing trades, furniture polishers
 3107) 37.60 Boilermakers, glass blowers, rivetters, lathe setters
 2801 6or7 37.44 Chefs, pastry cooks, grill hands, hairdressers

 38.46 8.13%

16. Skilled Employees - III

3108) 35.67 Telephone linesmen, BT drivers, shunters, signalmen
 3109) 7 35.53 Miners (surface workers) tunnellers, maintenance men
 3111) 32.61 Kiln workers, blastfurnacemen, leather workers, ovenmen,
 vatmen

 34.60 6.67%

17. Semi-Skilled Employees - I

3201)	35.55	Machine and process workers in manufacturing
3110)	35.03	Bulldozer, excavator drivers, steel erectors, windingmen
2304) 7	34.64	Shop assistants, computer workers
3203)	32.67	Deckhands, surface mineworkers, brickfield workers
	34.47	8.81%

18. Semi-Skilled Employees - II

2402)	32.42	Doormen, billstickers, press photographers, cloakroom attendants
4201) 7	31.49	Gardeners, shepherds, cowmen, worker in horticulture & forest
3202)	30.00	Water fitters, specialist labourers in construction and maintenance
3112)	27.23	Road transport drivers and guards
	30.29	7.53%

19. Unskilled Workers - I (Employees and Self-Employed)

3501)	30.78	Pools agents, bookmakers, fish-and-chip-shop owners, showmen
3801) 3	30.05	Window cleaners, sweeps, parcel carriers, odd-job-men
4002)	30.01	Turf and peat cutters, hedgers & ditchers, mole catchers
3204)	28.35	Groundsmen, P.O. sorters, roundsmen, warehousemen, laundry workers
3301) 7	28.33	Dock workers
2401)	27.10	Guards, street vendors, phone operators, security men, traffic wardens
	29.10	7.40%

20. Unskilled Employees - II

2901 7	22.95	Waiters, barmen, counterhands
3302 7	18.36	Labourers, porters, cleaners
3703 3	17.52	Jobbing gardeners, barrow boys, paper sellers, hawkers
	19.61	6.72%

Appendix 2: Methodology

This study, like most mobility research, sits firmly in the survey research tradition of empirical sociology. That is not to deny the fact that it is possible to study social mobility using a wide variety of techniques. Indeed, recent examples include Fiddler's (1981) use of depth interviews; analysis of historical accounts and original documentary sources as in the Benwell CDP's "The Making of a Ruling Class" (1978); diary recording (Goldthorpe, 1980); secondary analysis and a local study of London, as in the case of Richardson (1978); and life histories as advocated by Lee (1981). Logically (as against logistically) there is no reason not to use a longitudinal study, and arguably the educational studies such as Douglas et al (1968, 1973) or the National Children's Bureau survey (Steedman 1980) are doing just that, even if their prime focus is education rather than occupation. Again, one could go some way with an observational or ethnographic method, in particular if one were interested in the process and actor-meanings involved in a key decision or at some part of a career. Learning to Labour (Willis, 1977) could be considered a case in point.

Nevertheless, most mobility research has used the social survey and the interviewer-administered questionnaire to collect data, with statistical, and usually computer-based, techniques for the analysis of those data. The other methods have chiefly been employed where the focus of the project has not been mobility itself, or where some particular sub-group of the population was of special interest.

Why has this been so?

Survey Methodology and Social Mobility

We can explain the dominance of survey methodology in any or all of three ways. First, there is a kind of natural inertia in research, in that the basic approach adopted by early researchers sets the terms of reference for those who follow. The 1949 study used a survey methodology, other national studies followed the same line of enquiry, and we find the Nuffield Study setting itself up as a replication of Glass's work a generation later (SSRC 1970, Hope(1975)). We would hesitate to describe this 'inertia' as 'working within a dominant paradigm' in a Kuhnian sense: rather, if a sociological argument is advanced based on certain kinds of evidence, then the most direct empirical response is to seek further evidence of a similar kind. Evidence having a different ontological status, such as collected for a more restricted sub-set of the population or by different techniques, would only complicate the process of scholarly debate. Supposed inconsistencies in evidence could be attributed to methodological procedures, rather than genuine variation in the phenomena under investigation.

The second explanation is an extension of this sociology of knowledge approach. Social mobility has been a popular area of research for the more numerate sociologist, as evinced for example by the generation of numerous indices of mobility (Bibby, 1976), and by the way path-analysis and log-linear modeling have been introduced to, and popularised in, the profession by virtue of their application to mobility problems (e.g. Silvey, 1975, 114: Goldthorpe, 1980, 79). Once an area is active and has developed its own style of discourse, it tends to attract new recruits who can operate within that style. (1)

(1) Although the present researcher can hardly be said to constitute evidence in support of this contention. However, a visiting lecturer at one of the country's more numerate departments has complained to the author that he could not teach his intended course in social mobility because the undergraduates lacked the necessary statistical skills.

In the case of mobility research, it has been a heavily statistical style, which in turn requires quantities of numerical data best collected by social surveys. Therefore, even if this methodology were not the most appropriate, there would still be reasons for its usage.

The third, and most satisfying, reason for social mobility's dominant methodology is that it is the best for the task in hand. We have observed that one national study breeds another, because continuity of evidence is desirable, and that the application of statistical techniques requires quantities of numerical data. We can go further and argue that, given a theoretical interest in class relations or occupational structures, the nation-state is a useful, if not fool-proof, unit of analysis. We therefore require an extensive rather than intensive method. If we wish to say something about social mobility in Scotland then a study of Edinburgh or Orkney is of value, but only in a limited sense: clearly a national study is more use for this level of analysis, as it allows one to analyse the country as a whole and to sub-divide the data later on a situational basis in the most convenient and flexible ways. The only other obvious method of collecting this kind of data is a self-completion and/or mailed questionnaire. However, as experience with pilots and pre-pilots proved, even when using experienced and carefully briefed interviewers, the required amount of detail on occupations and the technicalities of the Scottish education system could at times defeat even the most intelligent and articulate respondents.

This brief comment on alternative methods implies that a great deal of careful consideration went into the choice of method, but this would be slightly misleading. In practice, few empirical sociologists go back to such first principles, and even fewer ask:

fundamental questions about notions of positivist social science, whatever undergraduate textbooks may imply. (2) In the case of the Scottish Mobility Study, the methodological style of research had been 'sanctified' by David Glass and his illustrious colleagues at LSE (see Chapter 6); their results had been taken as valid by later but equally well-known sociologists (see Chapter 7); the method closely followed that employed by Goldthorpe, Halsey, Floud et al in 1972 and by many other national studies; and finally the project had the ultimate blessing of the Social Science Research Council's Sociology and Social Administration - and Statistics - Committees.

An extensive theoretical discussion of the merits and demerits of survey analysis at this point would therefore be pedantic because, given this well-established research tradition, the present study's use of survey research is not as problematic as the more typical higher degree project involving an innovatory method or a much narrower empirical base.

However, this is not to argue that all parts of the methodology are equally unproblematic, nor to invite the reader to take the author's technical competence as given. It is still necessary to account for the detailed implementation of the methods, such as the sample design and the construction of the questionnaire. Indeed, the occupational categories used in the study are considered so important that they have received separate treatment (see Appendix 1 above).

Influences of Other Studies

In order to understand some of the details of the methodology, it seems sensible to start with the origins of the project. In the late

(2) It is recognised that this account has already embraced methodological pluralism, quite apart from confronting any issues involved in the debate about the 'epistemological crisis' in British Sociology (Bell and Newby, 1977, 1979). A discussion of the author's position in these debates can be found in Payne et al (1981), particularly in Chapters 3 and 4.

1960's, a number of sociologists in Oxford began to think about a national mobility study to re-examine the work of David Glass 'twenty years on' by adding another generation to the cohorts which had made up Glass's sample. The preliminary work which culminated in the Hope-Goldthorpe occupational grading scale (1974) was an attempt to improve on the methods used by Glass, while the other early products (1972, 1974) were largely statistical developments which would enable a more powerful analysis to take place. Until well after the start of the Scottish project, the main thrust of the Nuffield work was very much in the mainstream tradition; it differed from that tradition mainly in recognising the need for new research after the twenty years which had elapsed since the LSE study, and in its determination to take advantage of technical improvements in sociological methodology. In particular, the Nuffield team had been influenced by the work of Duncan, and they were attempting to expand the analytical horizon of British mobility research to incorporate work done in America, largely inspired by The American Occupational Structure (1967).

Initially, the Nuffield team proposed a survey of Scotland, England and Wales, if only because Glass had done the same. It was apparently felt by the SSRC that, while blanket coverage was desirable (ultimately 3 national studies were financed, including Ireland), the Scottish part of the study could not be easily run from Oxford and that a Scottish institution with a sensitivity to local conditions should be involved. This would also retain the possibility for comparative analysis, and ensure that there was more than just one team working such an important topic. The Nuffield sociologists contacted a number of departments in a search for partners, and eventually found Aberdeen agreeable.

It will be apparent that there was something of a structural tension in this arrangement. On the one hand, the Scottish study was intended to respond to 'local' issues: for example, early documents speak of Scotland's distinctive industrial mix, its high proportion of council housing, its local labour markets, and patterns of migration (SSRC 1972). On the other hand, there is an emphasis on replication and extension of the Nuffield Study. While both tendencies in the research could best be incorporated in a survey method, it was the second of them which had the more direct impact on the methodology adopted. However, the structural tension resulted in a rapid severing of the early connections between the two studies.

During the first six months of the Scottish Study, the present author made several visits to Oxford to discuss aspects of data collection and computing problems. This had been part of the original plan of work, and the grant application had proposed the use of similar research implements, not least the Hope-Goldthorpe occupational grading scale, to achieve a replication of the Nuffield work in the social setting of Scotland. However, an unfortunate misunderstanding arose during this period, which would be comic had it not been so serious at the time. In discussions with Oxford, there was complete agreement that the SMS offered unique opportunity for replication, and one which both research teams wished to take. Joint analyses of the Nuffield questionnaire design and field work problems were made, with the express intention of avoiding pit-falls, particularly through care in briefing interviewers and coders. Throughout this exercise, which include visits, phone calls and an extensive correspondence, it did not occur to either team the term "replication" might mean different things to different people.

Because of the pressure of the timetable - the plan was to launch the SMS fieldwork within 6 months of the start of the project - the design, pre-test and piloting of the questionnaire (see below) were completed without any detailed feedback to Nuffield. Indeed, it was only within a week of the printer's deadline, with more than 90% of the questionnaire composed, that the Nuffield team discovered to their dismay that the SMS questionnaire was not identical to their own. Only at this point did it emerge that the Nuffield team had taken replication to mean an exact literal repeat of their questionnaire, with any questions of Scottish interest added at the end of the interview. The present author had taken replication to mean an independent re-examination of the same variables, using the same questionnaire where possible, but with improved question-wording etc. where problems had been encountered by Nuffield, and with changed categories to account for Scottish conditions - such as in the education questions.

The Nuffield team had attached tremendous importance to achieving their version of a 'replication' in Scotland, as witnessed by their efforts to promote the survey in the first place. Having succeeded, as they thought, it must have been a cruel blow to learn at the last minute that they had been mistaken. The lateness of the discovery only made it worse. In Aberdeen, this was not at the time understood. The reaction there was one of surprise and indignation: there had never been any intention to act as a Scottish research assistant for Nuffield, and least of all to implement a questionnaire that was not only in places completely inappropriate to Scottish conditions, but also was admitted to be unsatisfactory by its English authors.

The coolness between the two studies that developed at this point had the unforeseen benefit of encouraging separate and independent

lines of analysis to be followed in the Scottish research. It was not until the end of 1975 that an exchange of ideas and working papers began again, by which time the orientation of the SMS had been established. Despite this, it is the closeness of the two projects in terms of data collection which would strike the outside observer, not the differences.

The Questionnaire

In particular, the questions on occupation and further education in the two studies are almost identical. The same four job points have been collected, the same kinds of data on parents and a randomly selected brother, the same income data and similar geographical locations. The Scottish questionnaire included more on migration, on kinship and friendship interactions, on attitudes to work and methods of obtaining a job. (3) It included none of the political questions that Oxford used. The data on occupations and further education are coded in a format which is reducible to that of the English data, and basic problems such as the treatment of pre-apprenticeship temporary jobs, or the definition of 'father's job' (i.e., when the respondent was 14 years old) have been solved in the same way in the two studies.

The questionnaire design followed, where appropriate, the Nuffield College version. To that extent, a majority of the questions had been pre-tested and piloted very extensively by the 1972 survey of England and Wales. Wording modifications, changes of contents, ordering, and final layout were pre-tested in several different areas of Glasgow in January 1974, with two experienced interviewers accompanied by the author. Piloting followed revisions, using more typical interviewers in four areas chosen to reflect the varied character of Scotland. The pilot was also used to test briefing procedures, administration, sampling

(3) See below, at end of this Appendix.

methods and coding. After final modifications, the questionnaire was printed in March 1974. For completeness, a copy of the questionnaire is included at the end of this appendix, although obviously many of the questions are not relevant to the empirical analysis presented above in Chapters 7-10. In the original, the questionnaire was printed on foolscap size paper, but to save space this has been reduced to A5, and two pages are here reproduced on one side of A4. This means that the cover page containing name, address and interview arrangements is reproduced alongside what was page 1 (inside the front cover) in the original. Thereafter what appears as a pair on each of the pages below were 'front and backs' in the original.

In this form, the questionnaire looks rather cramped. In the original however there was considerable space, a result of some care devoted to lay-out and modifications following the pilot stage. This can possibly be judged from the one page of the questionnaire which is reproduced at as close to full scale as possible with A4 format, and is located before the reduced-size pages.

The Sample

Until 1974, the Census was the only example of a truly national social survey in Scotland. A number of samples had covered the country south and east of the Caledonian Canal (for example the 1947 Mental Health Survey), while the market research practice had typically been to sample in Edinburgh, Glasgow, a rural area in the Borders, and either Dundee or Aberdeen. There was therefore neither a model, nor an experienced fieldforce, on which to draw for the Scottish Mobility Study. Luckily, Professor Graham Kalton, then at Southampton University, volunteered his services as consultant, and it was under his tutelage that the author replaced the original sample design of the SSRC Grant Application with a more effective one.

The sample design can be thought of as having three constraining elements. In the first place, the grant provided for about 5,000 interviews at an average total cost (i.e. including administration,

training, travelling expenses, etc) of £5 per head. This implied not just a ceiling on sample size, but also limited how much of rural Scotland could be included, and in what way. It was decided that the expense of interviewing in the Outer Hebrides, the Orkneys and the Shetlands did not justify the likely return in improved accuracy: severe clustering would have been necessary to avoid drawing one respondent per island! The sampling was therefore restricted to the inner islands and the mainland. In the event, the sampling did not throw up any respondents on offshore islands, but of course they were technically part of the population represented by the sample. The exclusions totalled 1.3% of the Scottish population as recorded on the electoral register, i.e. 47,560 or about 16,675 eligible males. (See completion rate details below.)

The financial constraint also explains the restriction of the study to male respondents. As discussed above, the occupational position of women is so different from that of men that it requires separate analysis, so that instead of having about 5,000 cases, the effective size would have been two 2,500 case data-sets, or one a little larger and the other even smaller. With the prospect of producing a conventional mobility table based on seven occupational categories, and four cohorts, cell size for 2,500 cases would have dropped to an average of less than 13 ($2,500 \div (7 \times 7 \times 4) = 12.8$), which in practice would have meant numerous blank cells. By the same token, a sample of 2,500 covering the whole of Scotland would have been less attractive than one of 5,000.

This leads us to the second element of constraint in planning the sample. The only available suitable sampling frame was the Electoral Register, which lists both men and women, aged from 18 and older. ⁽⁴⁾ The target population, however, was men aged 20-64

(4) To be exact, it contains 17 year olds who will become 18 during the life of the Register, and excludes certain categories of person such as criminals, lunatics, or travelling people (see

It was therefore necessary to estimate the proportions of women, and men the 'wrong' age, so that the initial draw would contain sufficient names to allow for the discard of these 'ineligible' persons. Women were discarded at the stage of copying names from the Register, unless there was some ambiguity about their names, in which case they were contacted by the interviewer. Men who were the wrong age were part of the work lists issued to interviewers whose initial task was to check the respondent's age: obviously interviews were not carried out on men who were not aged 20-64.

The result of this second constraint is that to yield about 5,000 interviews, the basic sample had to be the surprisingly large size of about 17,000. The rationale is as follows:-

- a) 5,000 interviews should represent an 80% response rate, so that the final male 20-64 year old sample size is 6,250
- b) Census data on age distributions in 1971 show that men aged 20 to 64 made up nearly 81% of the male population aged 18 and older. In order to be left with 6,250, it is necessary to draw approximately 7,775 male names.
- c) Men make up about 48% of the adult population, (1971 Census) although the experience of the Nuffield Survey and the Aberdeen pilots suggested that the figure of 46% was a more accurate estimate of the proportion of men as registered on the Electoral Roll. If 7,775 is around 46%, then the initial sample size, in order to allow for all discards, becomes 16,900, or in fact 16,902 when calculated without the rounding used here in the text.

These calculations were based on estimates derived from the 1971 Census and the 1973 Electoral Register. When the sample design was applied to the 1974 Electoral Register, it eventually yielded 17,022 names. Against the estimate of 46% males, the actual percentage was

46.6: however, the age discard turned out to be slightly higher, at 19.8%, which gave a figure of 6,360. However, this figure includes a number of cases who were not contacted, and therefore contains some males the wrong age, and a few gender-ambiguous names.

The third constraint on the sample design was the more familiar one of adjusting size and money to the requirements of good statistical practice.

The first step was to stratify the sample by the (pre-Local Government reorganisation) planning sub-regions, although in practice this is relevant for only the one-third of the sample who lived in rural areas. Scotland is an unusually highly urbanised country, with concentrations of population in the Lowlands and major cities, and very low densities in the rural areas. All of the urban areas - cities and burghs with electorates of over 6,000, plus nine densely-populated landward areas ⁽⁵⁾ - were included in the sample, and a systematic sample drawn from them, using a random starting point and treating them as if they were a single area with one continuous electoral register. In other words, there was no clustering, and the sampling interval was counted on from one area into the next when it exceeded the final entry of the former list. As all of these 68 urban areas were included, the regional stratification is unimportant, and the sample from urban Scotland can be regarded as a simple systematic random sample yielding 68.6% of the total sample, the appropriate population proportion. The 'urban'

(5) In Scotland, the cities and burghs are basically the same as the old city and urban district council administrative areas, and 'landward areas' are the same as the old rural districts. Local government re-organisation took place a year later in Scotland than in England and Wales, and so the sample was designed and drawn on the old boundaries.

sample represents one in every 583 members of the electorate, drawn at a sampling interval of 215.3962. (6)

In the remaining rural areas, which cover a much larger proportion of the land-mass, the other one-third of the population had to be sampled using clustering. The intention behind the clustering was to produce lists of respondents containing about 25 names, at addresses in a reasonable driving time of each other. There was no strict formula for this pattern: it was based on 'rule of thumb' advice from experienced fieldwork supervisors who wanted realistic work loads for their interviewers. As a prior step, each region was further stratified by county, or combination of counties where the electorate was very small (e.g. Caithness and Sutherland). Then each landward district was listed by its electoral divisions, and again, where these were very small (with less than 300 electors) combinations were made with contiguous electoral divisions, provided that the geographical area so created was still viable for one interviewer to cover. To obtain a sample with a probability proportionate to size (p.p.s) the electoral divisions were listed as a cumulative total of electors, and areas were then selected as containing an elector chosen by use of random numbers. Within each stratum the number of areas to be selected was calculated by dividing the county's sample share (county electorate ÷ Scottish electorate, x 6250) into suitable workloads, i.e. as close to 25 as possible. Within each area, the sampling interval depended on size (area electorate ÷ 25). 73 areas were drawn in this way, yielding 31.4% of the sample.

In talking about these areas as rural, it would be wrong to visualize the respondents as farmers. Because the areas are self weighting,

(6) The selection was made by rounding to the nearest full number, but with each residual retained for the subsequent calculation, using the SAM programme available from the Computer Centre, Aberdeen University.

those with larger populations quite correctly feature more prominently in the selections. Thus for example, the small mill and market towns of the Borders, like Hawick and Jedburgh, contribute many of those sampled in a 'rural' region. On the other hand, the sample spread from a lighthouse-keeper at the Point of Stoer in the far North-West to a harbour worker at Stranrear in the South-West, and from an atomic scientist at Dounreay in Sutherland, to fishermen down the East coast from Peterhead to Eyemouth. If much of the time was spent organising interviews on Clydeside, there were odd moments of light relief like the account of an interview and afternoon tea with a laird on Upper Deeside, or the request for authorization of boat-hire to cross a loch, in order to interview a crofter on a croft with no road!

Completion Rates

The overall rate of completion was 81.9%. Following Goldthorpe (1980, 284) the details are:

Original Draw		17,022
Less Females	9,090	
Less Males Too Old	1,257	
Males Too Young	315	
	<hr/>	
	10,662	
Less Dead at 1st April 1974	123	
Less Moved before 1st April 1974 (no replacement available)	215	
	<hr/>	
	338	
Less Allowance for above against non-contacts (24.1% of 217)	52	
	<hr/>	
Total Discards etc	11,052	
<u>Total possible interviews</u>		5,970
<u>Not Interviewed</u>		
Moved, failed to locate	264 (4.4%)	
Non-Contacts (assumed to be right age etc)	165 (2.8%)	
Interviewed but appropriated by market research agency	75 (1.3%)	
Too Ill	48 (0.8%)	
Refusals	513 (8.6%)	
Other incomplete	18 (0.3%)	
	<hr/>	
	1,083	
<u>Interviewed</u>		4,887
		= 81.9%

In each constituency (the sample was in fact organised by parliamentary constituency because of its origins in the electoral registers) the response rate exceeded 70%. However in the dozen or so smaller central Glasgow constituencies where re-development and an aging population made interviewing more difficult, the response rates were collectively a little lower than elsewhere in the country. Had another 40 or 50 interviews been obtained in Glasgow, this small imbalance would have to be corrected: it is to be assumed that the survey data therefore slightly underestimate the parameters of central city dwellers (manual working class, older, etc).

The procedure for respondents who had moved depended on date of moving. Those who moved before the start of fieldwork were replaced by a respondent - if any - now living at that original address. The selection was done by listing all eligible males in the household, numbering them, and then selecting one by number, using a 'Kish Box' on the interviewer's contact sheet. The Kish technique was also used to select which of the respondent's brothers and sons were to be the subject of further questions, so ensuring random selection (for details of the Kish Box, see Kish, 1965, 398). Where a mover had left his address since the start of fieldwork, the new address was obtained where possible and another interviewer assigned to obtain the interview in the new area.

The Fieldwork

The fieldwork was carried out over an unusually long period due to problems with the fieldforce. A market research firm was contracted to complete the interviewing between Easter and Autumn in 1974. By mid October, only just over a third of respondents had been contacted and there was no sign of likely completion. It was therefore decided to discharge the firm, and to use the money saved (by virtue of the mutually-agreed penalty clauses) to finish the job using a directly-hired fieldforce.

The fieldwork was mainly completed by the late Spring of the following year, although some 'mopping-up' continued into the Summer.

Throughout the survey (i.e. in its market research and its university-directed phases) all interviewers received at least one, and normally two days' training by the author and other members of the SMS team. 3 'dummy' interviews were then done as practice in each case, and checked in Aberdeen before names from the sample were released to a new interviewer. All completed questionnaires were returned to the SMS where they were edited on major questions by two clerical workers with market research experience, with a further 10% full editing by the SMS team. Any difficulties were solved by recalls as instructed by letters of advice sent direct to the interviewers. A further 10% of respondents were sent a brief letter to check that the interview had taken place as claimed, and any doubtful cases were also contacted, and a small number visited. The role of the market research firm was therefore limited to general administrative advice, recruiting interviewers, and their personnel management and payment. Quality control remained SMS responsibility. No cases of cheating by interviewers were discovered by any of the checks, except for certain initial non-contacts which subsequently turned out to be more accessible than one had been led to believe.

The chief difficulty with the conduct of the fieldwork was that it spanned such a long period. About one-third of the interviews were completed between April and September, 1974, and the remainder were collected thereafter, for the most part in the first half of 1975. It is very difficult to estimate what effect this delay had on the data. Those respondents interviewed in the later stages had marginally longer in which to develop their careers, during which time the occupational structure may have undergone further occupational transition. To the extent that this occurred, the present study will have a slight if unquantifiable over-estimate of mobility rates. This is not regarded as serious, as the very young respondents, who

stood to gain most from this artefactual result have been excluded from most analyses, while it is generally argued that the occupational transition effect was less pronounced by the 1970's (see Chapter 5). The most important product of the fieldwork delay probably lies on the data on incomes: the time span 1974-1975 saw very rapid inflation, and any discussion of incomes requires qualification to accommodate for the wage awards that resulted.

Data Processing

Coding was done by a team of about twenty students, working in four specialist groups, dealing with occupations; education; post-secondary education, and 'migration' (in fact this meant anything not coded by the other three). Every questionnaire was coded twice independently, and then differences reconciled, with the help of the present author or one of the team. A member of the team was always present to supervise operations and about one in ten of the questionnaires were recoded a third time as a further check by the person whose turn it was to be 'on duty'. Again training and practice sessions were held in advance of any work on the actual cases; instruction sheets and reference books were available; and any new coding decisions were logged and also marked on a large notice board in the coding room.

The data were systematically computerised and 'cleaned' over a period of seven months, using range checks (i.e. maxima and minima), internal consistency (i.e. logical interconnections), and listings of selected variables. With some secondary variables completed (e.g. Hope-Goldthorpe scale categories generated from the original occupational codings) the final data-set consisted of 4887 cases, each containing a potential entry on 1,000 variables stored on 31 cards per respondents. The data-set is lodged at Aberdeen, Plymouth Polytechnic and the SSRC Survey Data Archive, Essex.

All calculations reported in this volume which deal with the SMS sample data have been based on SPSS, versions 7, 8 or 9. Version 7 was available both in Aberdeen (on ICL and later Honeywell machines) and in Plymouth (on ICL and later Prime machines), version 8 and 9 in Plymouth on Prime. Any necessary tape modifications were checked against the earlier version using FORTRAN programmes provided by the Computer Centre staffs at the two installations who gave valuable assistance during the transition periods.

The assistance of the computer staff (and most notably of Judy Payne who helped with later runs done in Plymouth) raises the question of how much of the research reported in this thesis has been done by the author. Unlike most Ph.D. dissertations, which must be of more limited scope, this research entailed setting up and carrying out a major national survey, and analysing and theorizing about the results. Inevitably, other people were involved in this work, and it may help to indicate the nature of this involvement. It will be necessary to note how limited some of these contributions were, but this is not to be read as implying any criticism whatsoever of former colleagues.

Independence and Team Work

The direction of the project between September 1973 and May 1977 was entirely in the hands of the present author. For most of that period, the study was based in a building some distance from the Aberdeen Sociology Department, and apart from a brief weekly progress report and occasional moral support, the full time staff named as grantholders in the original SSRC application did not have any involvement in the project. This, together with the re-design of the questionnaire and sample, and the emphasis in the present account on occupational structure (which was not mentioned in the original grant application), indicate that the research reported here was not simply produced by the author at the behest of the grant holders. Similarly, this appendix demonstrates that the research is not just secondary analysis.

However, the study would not have been possible without the manpower of two research assistants, a secretary, a team of coders and field-force. Of these, the contribution of the research assistants is the most important. The first, Catherine Petrie (later Catherine Robertson) was a recent graduate in computer science who had studied no sociology, had no wish to involve herself in the conceptual side of the project, and effectively defined her role as an administrator and a member of the Computer Centre. The second research assistant, Graeme Ford, made it clear at his interview that although he was a sociologist he claimed no methodological expertise and knew very little about social mobility. His main attribute was a ferociously negative turn of mind, making him an excellent 'sounding board', quick to see flaws in arguments and without preconceptions about mobility or class. Both Catherine and Graeme were exceptionally hard working and good-natured, and carried out their roles extremely well.

The collection of the data and their preparation for analysis was a team effort. In the period when the data-set was actually being analysed, many hours were spent in speculating, arguing, and just gossiping. In such a case it can never be that the participants remember every detail of their conversations. I have attempted to the best of my ability to recall how ideas were originally introduced, and to be scrupulous about what I have incorporated. Nothing originated or written by my colleagues has been included here without explicit attribution.

In conclusion, on the one hand the ideas in the present research are dependent neither on super-ordinate nor subordinate staff connected with the project to any significantly greater extent than a typical post-graduate depends on his departmental colleagues. On the other hand, many people helped to collect and process the data for computer analysis, and although the author shared this work, the total effort of a national survey goes far beyond what one person could achieve. Any deficiencies are of course my responsibility.

List A.3 : The Questionnaire

We would like to find out about your background and your father's occupation so that we can understand the changes that have taken place in the last generation.

1. Firstly, can you tell me when you were born ?

DAY	MONTH	YEAR

ESTIMATE OF AGE (TO BE USED ONLY IF BIRTH DATE REFUSED)

IF RELUCTANT, GET YEAR. IF REFUSES, MAKE ESTIMATE.

IF THE RESPONDENT IS UNDER 20 (BORN AFTER 1ST MAY, 1954)
OR OVER 64 (BORN ON OR BEFORE 1ST MAY, 1909) YOU SHOULD
NOT INTERVIEW HIM. TERMINATE THE INTERVIEW.

2. When you were born, where were your parents living ?

	TOWN/VILLAGE/PARISH	COUNTY	OR	COUNTRY
MOTHER				
FATHER				

In most cases the parents will both have been in the same place and you can merely write "SAME" for father. In this and all other questions that ask for a place name you give Town/Village/Parish and County if in Scotland, England, Wales or Northern Ireland. In the case of cities, get the name of the borough or district (not postal codes). If not Scotland, England, Wales or Northern Ireland, the country is sufficient. If the father was in the Forces, and therefore away from the family, write FORCES - do not give the place.

3. At the time you were born, did your family rent or own their own home ?

- G
- | | |
|-------------------------------------|---|
| Rent Council House/Flat | 1 |
| Tied Housing | 2 |
| Rent House/Flat (not Council) | 3 |
| Own/Buying | 4 |
| Other (specify) | 5 |

we would like to find out about your background and your father's occupation so that we can understand the changes that have taken place in the last generation.

1. Firstly, can you tell me when you were born ?

DAY	MONTH	YEAR

ESTIMATE OF AGE (TO BE USED ONLY IF BIRTH DATE REFUSED)

IF RELUCTANT, GET YEAR. IF REFUSES, MAKE ESTIMATE.

IF THE RESPONDENT IS UNDER 20 (BORN AFTER 1ST MAY, 1954)
 OR OVER 64 (BORN ON OR BEFORE 1ST MAY, 1909) YOU SHOULD
 NOT INTERVIEW HIM. TERMINATE THE INTERVIEW.

2. When you were born, where were your parents living ?

MOTHER	COUNTY	OR	COUNTRY
FATHER			

In most cases the parents will both have been in the same place and you can merely write "SAME" for father. In this and all other questions that ask for a place name you give Town/Village/Parish and County if in Scotland, England, Wales or Northern Ireland. In the case of cities, get the name of the borough or district (not postal codes). If not Scotland, England, Wales or Northern Ireland, the country is sufficient. If the father was in the Forces, and therefore away from the family, write FORCES - do not give the place.

3. At the time you were born, did your family rent or own their own home ?

- 6
- Rent Council House/Flat 1
 - Tied Housing 2
 - Rent House/Flat (not Council) 3
 - Own/Buying 4
 - Other (specify) 5

Surname _____

First Names _____

Full Address _____

Sampling Point No. _____

Serial No. _____

Sequence No. _____

Interviewer Name _____

Interviewer No. _____

Elector _____

Non-Elector _____

Date _____

Time Started _____

Time Ended _____

FOR OFFICIAL USE ONLY

Selection Table

b2

No. of Electors	_____
No. of Non-Electors	_____
Field Check	_____
Postal Check	_____
Edit	_____
Coder Nos.	_____

Did you pass any exams before leaving school? D.K.

NONE

SCOTLAND ONLY

Qualifying Exam/Eleven Plus 01

1, 2 or 3 Year Courses

Day School Certificate (Lower) 02

Day School Certificate (Higher) 03

Clerical and Commercial Qualifications, such as typing, shorthand, RSA Commercial Certificate (specify if possible) 04

Other (specify) 05

No. of passes (where appropriate)

4, 5 or 6 Year Courses

Leaving Certificate/Senior Leaving Certificate/"Higher" Leaving Certificate/Scottish Leaving Certificate/Scottish Certificate of Education -

0 Grade/Lower Grade 06

Higher Grade 07

Honours Grade/Certificate of 6th Year Studies 08

General Certificate of Education (GCE) -

0 Level 09

A Level 10

University Preliminary Exams - 0 Grade/Lower Higher Grade 11

..... 12

Other (specify) 13

ENGLISH OR IRISH

General Certificate of Education (GCE) - 0 Levels 14

A Levels 15

Certificate of Secondary Education (CSE) 16

School Certificate 17

Matriculation 18

Higher School Certificate 19

Ireland (specify) 20

Clerical and Commercial Qualifications, such as typing, shorthand, RSA Commercial Certificate (specify if possible) 21

Other (specify) 22

4.1. Age when left school OR DATE MONTH YEAR

TICK HERE IF DON'T KNOW EXACT AGE BUT KNOW IT WAS SCHOOL LEAVING AGE

Get name and location. Probe "Any other Primary Schools?" Probe Denomination: Record N-D (non-denominational); RC (Catholic); 0 (Other - specify) Probe "Any Private Primary education?": Record P or N (none) and relate.

4b. At what age did you leave the Primary School or Primary Department of the Elementary School?

4c. What kind of school did you go to then? (SHOW CARD A)

Get name(s), location(s) and dates. Probe "Any others?" Probe Denomination: Record N-D (non-denominational); RC (Catholic); 0 (Other - specify)

- None (stayed at Primary School/Primary Department of Elementary School) 00 - GO TO Q.4(1)
- CIRCLE ALL WHICH APPLY
- Elementary with Advanced Division or Department/Central School 01
 - Intermediate/Higher Grade (3 year only) 02
 - Junior Secondary 03
 - "Short Comprehensive" 04
 - Senior Secondary/ Higher Grade (5 year) 05
 - Grant Aided School 06
 - Private School 07
 - Special School (e.g. Open Air, Blind, Deaf, Maladjusted) 08
 - English (specify) 09
 - Irish (specify) 10
 - Foreign (specify) 11
 - Other (specify) 12
 - D.K. 13

NOW ASK FOR EACH SCHOOL AND RELATE

4d. Did the school(s) have a Primary Department? _____

4e(1) There are some schools which take all the local children, but only the more academic children from further away. Was it one of these? _____ (IF YES - SKIP TO Q.4f)

4e(11) Did all children whatever their ability go to the school(s) in their first year? _____ (IF YES - SKIP TO Q.4f)

4e(111) Did you have to pass an exam to go to that school? _____

4f. Did the pupils who wanted to take Highers/A-Levels have to change schools? NO At end of 1st Year At end of 2nd Year At end of 3rd Year At end of 4th Year

4g. And what was the highest qualification anybody could normally take at the school(s)? (How many years?)

4h. How the course you started - how many years did it normally last?

4i. How many foreign languages did you take?

4j. Were you a boarder or a day-pupil?

CARD C1 CARD C2

Did you at any time do any training or further education, either full-time or part-time? (What was that?) (How about training in a job, or later on in life?)

GIVE FULL DETAILS: Always give full details on field, length and nature of training, and kind of institution (for example, University, Polytechnic, Teacher Training, HEA, Adult Education, Residential College, College of Further Education, etc.) RELATE the codes circled to these details as explained in the instructions

CIRCLE ALL WHICH APPLY

- No further education 00
- Apprenticeship of any kind 01
- Articled to a Profession (e.g. accounting, surveying, law) 02
- In-firm training 03
- Day-release or Block Release 04
- Sandwich Course 05
- Part-time Vocational training (But not in-firm, day-release or block release) 06
- Other part-time (leisure interests) 07
- Correspondence Course (vocational) 08
- Correspondence Course (leisure interests) 09
- Full-time 10

ASK Q.5b ONLY IF RESPONDENT HAD FULL-TIME FURTHER EDUCATION. IN ALL OTHER CASES - SKIP TO Q.5c

5b. TERMINATION OF FULL-TIME EDUCATION

When did you finish your full-time education ?

AGE OR YEAR

Did you sit any of these exams after leaving school? (Probe: Any failed, or not completed).

Passed, Failed or Still working or age last exam taken
No. of Passes completed on

Scottish Certificate of Education

- 0 Grade 01
- Higher Grade 02
- Honours Grade (incl) Certificate of 6th Year Studies 03

University Preliminary Examinations

- 0 Grade/Lower 04
- Higher Grade 05

Certificate of Secondary Education (CSE)

- 06

General Certificate of Education (GCE)

- 0 Level 07
- A Level 08

School Certificate

- 09

Matriculation

- 10

Higher School Certificate

- 11

Republic of Ireland School Exams (specify)

- 12

None 13

Record "commercial and clerical qualifications" on next page, Q.5d.

5e. Did any of the following ever pay fees for your education: Immediate family; other relatives; local authorities; trust or bursaries; or some other organisation or firm? (Probe Further/Higher Education)

- GET AGES/PERIODS
- Family 1
 - Relatives 2
 - Local Authorities 3
 - Trusts/Bursaries 4
 - Firms/Businesses 5
 - Other (specify) 6
 - None 7 - GO TO Q.E

5f. What part of your education did that apply to? (Relate to 5e.)

- Primary 1
- Secondary 2
- FE/Higher Education 3

6. Now when you were 14. Where were you living then?

TOWN/VILLAGE/PARISH _____ COUNTY _____ OR COUNTRY _____

If he moved during the year find out where he spent the larger part of the year. If he was in boarding school, we want to know where the family he normally lived with was staying, AND where his boarding school was. Remember that we want the town/village/parish and county if in Scotland, England, Wales or N. Ireland. In the case of cities always try to get the name of the borough or district (not postal codes). You should always probe for the name of the borough or, if that is not known, the name of the area.

7. When you were 14, did your family rent or own their own home?

- G
- Rent Council House/Flat 1
 - Tied Housing 2
 - Rent House/Flat (not Council) ... 3
 - Own/buying 4
 - Other (specify) 5

haven't mentioned?) (Did you ever start any?) (Any not on this card?)

DETAILS OF QUALIFICATIONS: E.g. Kind of Degree (and the "University" from which obtained), type of teaching or nursing qualification, name of professional body, name and grade of certificate, field, etc.

For armed forces training get details if not just military.

For apprentices - give field. RELATE each qualification to the form of further education by which it was obtained as explained in the instructions.

DATES/AGES STARTED, COMPLETED, FAILED, NEVER WORKING ON IT, STILL WORKING- (Give starting and finishing dates/ages) HIGHER ON IT

Ordinary trade apprenticeship 01 01 01

INDENTURED Don't know

OTHER

Qualifications gained in Armed Forces 02 02 02

Specialised trade, vocational or occupational qualifications (e.g. catering, salesmanship, building, management, etc.) 03 03 03

Clerical and commercial qualifications such as typing, shorthand, book-keeping, RSA/SCAPE and similar commercial certificate, RSA language certificate 04 04 04

City and Guilds 05 05 05

CERTIFICATE/INTERMEDIATE

FINAL Don't know

FULL TECHNOLOGICAL

Ordinary National Certificate - OMC 06 06 06

Ordinary National Diploma - OND 07 07 07

Higher National Certificate - HNC 08 08 08

Higher National Diploma - HND 09 09 09

PROBE: ENDORSEMENTS/GRADUATESHIP OF INSTITUTION

Yes (GIVE DETAILS)

No

Don't know

Professional qualifications, including membership of a professional body (such as A.P.T.E./A.M.I.E./A.C.C. and fully qualified solicitors) 10 10 10

"University"/CMAA First Degrees (incl. B.Ed./Dip.Tech./Medical/dental/veterinary qualifications) Ordinary 11 11 11

Honours 12 12 12

Dip. Tech. 13 13 13

University Degree Higher (Such as M.Sc., Ph.D., D.Sc., etc.) 14 14 14

University Diploma (excluding teaching diploma and excluding Dip. Tech.) 15 15 15

Qualifications or Certificates - Art, Music, Drama, Elocution, etc. 16 16 16

Nursing qualifications (SRN/SEN/RQI/etc.) 17 17 17

School Teaching qualifications such as Teacher's Certificate/Certificate of Education 18 18 18

Others (specify) 19 19 19

12.a. And what was your person named in Q.11's job at that time?
G
I mean what exactly did he (she) do?

If the father was in the Forces (or in National Service) but not a regular, you should tick the appropriate box and get his job before entering. Wartime "Volunteers" are not regulars. If he was a regular, do not tick the box, but enter his rank under 'occupation' and his Service under 'industry'.

TICK HERE IF NOT WORKING:
AND GET LAST FULL-TIME JOB AND DATE ENDED,
AND REASON FOR NOT WORKING

TICK HERE IF IN FORCES (BUT NOT A REGULAR)
AND GET JOB BEFORE ENTERING FORCES WITH
DATE ENDED

Occupation _____

Industry _____

Self-employed with 25 or more employees 1
Self-employed with less than 25 employees 2
Self-employed without employees 3
A Manager in an establishment with 25 or more employees 4
A Manager in an establishment with less than 25 employees .. 5
Foreman/Supervisor 6
Apprentices and Trainees 7
Family employee 8
Other employee 9

CIRCLE IF YES

Car 1
Telephone 2
Television 3
Refrigerator 4
Unshared use of a kitchen 5
Unshared use of a bathroom ... 6
An inside lavatory 7
A fixed bath or shower 8
Piped hot water to a sink 9
None 0

We mean unshared use of a telephone, a refrigerator, etc., that is used only by the family and not shared with anybody outside of the household.

9. Up to the time you were 14, how many times did your family move house?
G
None 0 - SKIP TO Q.11
Once 1
Twice 2
Three times 3
Four times 4
Five times 5
Six or more times 6

10. And what was the longest distance that your family moved house?
G

11. Was your father head of your household when you were 14?
G

Father 1 }
Mother 2 } GO TO Q.12
Another man (specify) 3 }
Another woman (specify) 4 }
Not living in a household:
living in an institution 5 SKIP TO Q.17

PROBE TO BE CERTAIN IT WAS NOT THE FATHER

If the father was living with the family, he was the head of family. If he was in the Forces or working away from home, he was still the head of family. If the Respondent names someone other than the father, please PROBE to be certain the father was not in the Forces or living in the respondent's household. "Institution" does not include boarding school.

However, if it was not the father, we want the respondent to decide who in his eyes headed the family. If the respondent is uncertain, you may explain that the head of the family is that person who makes most decisions for the family. We also want details of who was in the household.

YOU THEN ASK THE NEXT QUESTIONS ABOUT THE PERSON NAMED IN THIS QUESTION AS HEAD OF THE FAMILY (IT WILL USUALLY BE THE FATHER)

13a. SECONDARY SCHOOLING

G Now I'd like you to think about his (her) schooling. About what age did he (she) leave Primary School? (Probe "Any Private Primary Education?" : Record P or N (None)).

13b. What kind of Secondary School did he (she) go to ?

Probe firmly: Encourage Respondent to think back. Try to get name(s), location(s), and dates. Probe "Any others?" Probe Denomination: Record N-D (non-denominational); RC (Catholic); 0 (Other - specify). Do not give show card at first.

NON SHOW CARD A
None (stayed at Primary School/Primary Department of Elementary School) 01

CIRCLE ALL WHICH APPLY

- Elementary School, Advanced Dept. or Division/Central School 02
- Intermediate/Higher Grade (3 year) 03
- Junior Secondary 04
- "Short Comprehensive" 05
- Senior Secondary/Higher Grade (5 year) 06
- Grant Aided School 07
- Private School 08
- Special School (e.g. Open Air, Blind, Deaf, Maladjusted) 09
- English (specify) 10
- Irish (specify) 11
- Foreign Schools (Non UK or Ireland) 12
- Other (specify) 13
- D.K. 14

ASK: Was that a Comprehensive School for children of all abilities ?
YES NO

13c. Age when left school

TICK HERE IF DON'T KNOW EXACT AGE BUT KNOW IT WAS SCHOOL LEAVING AGE

IF ATTENDED ONLY FOREIGN SCHOOLS - SKIP TO Q.13e.

(Person named in Q.11)

(What was his (her) last job ?)

TICK HERE IF EXACT SAME JOB AS WHEN RESPONDENT WAS 14, AND GO TO Q.12c.

TICK HERE IF NOT WORKING AND GET LAST FULL-TIME JOB AND DATE ENDED, AND REASON FOR NOT WORKING

Occupation _____

Industry _____

- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with 25 or more employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- Other employee 9

12c. When was your _____ born ?
(Person named in Q.11)

G MONTH _____ YEAR _____

OR Age now _____ OR Date of death _____
and age at death _____

12d. Where was he (she) born ?

TOWN/VILLAGE/PARISH _____ COUNTY _____ OR COUNTRY _____

Remember that we want the town/village/parish and county if in Scotland, England, Wales or N. Ireland. In the case of cities always try to get the name of the borough or district. Postal codes are not helpful and you should always probe for the name of the borough or, if that is not known, the name of the area.

13e. FURTHER EDUCATION (Hand Card C to Respondent)

CARD C1 CARD C2

Did he (she) at any time do any training or further education, either full-time or part-time? (What was that?) (How about training in a job, or later on in life?)

GIVE FULL DETAILS: Always give full details on field, length and nature of training, and kind of institution (for example, University, Polytechnic, Teacher Training, MEA, Adult Education, Residential College, College of Further Education, etc.) RELATE the codes circled to these details as explained in the instructions.

CIRCLE ALL WHICH APPLY

- No further education 00
- Apprenticeship of any kind 01
- Articled to a Profession (e.g. accounting, surveying, law) 02
- In-firm training 03
- Day-release or Block Release 04
- Sandwich Course 05
- Part-time Vocational Training (But not in-firm, day-release or block release) 06
- Other part-time (leisure interests) 07
- Correspondence Course (vocational) 08
- Correspondence Course (leisure interests) 09
- Full-time 10

6. Did he (she) pass any of these exams? (Hand Card B to Respondent)

NONE DON'T KNOW

Number of Passes (Where appropriate)

- Qualifying Exam/Eleven Plus 01
- 1, 2 or 3 year Courses
- Merit Certificate/Day School Certificate (lower) 02
- Intermediate Certificate 03
- Day School Certificate (higher) 04
- Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificate (specify if possible) 05
- Other (specify) 06

4, 5 or 6 year Courses

- Leaving Certificate/Senior Leaving Certificate/Higher Leaving Certificate/Scottish Leaving Certificate/Scottish Certificate of Education
- 0 Grade /Lower 07
- Higher Grade 08
- Honours Grade/Certificate of 6th Year Studies 09
- General Certificate of Education (GCE)
- 0 Level 10
- A Level 11
- University Preliminary Examinations
- 0 Grade/Lower Grade 12
- Higher Grade 13
- Other (specify) 14

ENGLISH OR IPISH

- General Certificate of Education (GCE)
- 0 Level 15
- A Level 16
- Certificate of Secondary Education: (CSE) 17
- School Certificate 18
- Matriculation 19
- Higher School Certificate 20
- Ireland (specify) 21
- Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificate (specify if possible) 22
- Other (specify) 23

DETAILS OF QUALIFICATIONS: E.g. Kind of Degree (and the "University" from which obtained), type of teaching or nursing qualification, name of professional body, name and grade of certificate, field, etc. For armed forces training, get details if not just military. For apprentices - give field. RELATE each qualification to the form of further education by which it was obtained as explained in the instructions.

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
	STARTED, STILL WORKING ON IT	COMPLETED	FAILED, NEVER COMPLETED																	
Ordinary trade apprenticeship	01	01	01																	
INDENTURED <input type="checkbox"/>																				
TICK ONE: OTHER <input type="checkbox"/> Don't know <input type="checkbox"/>																				
Qualifications gained in Armed Forces	02	02	02																	
Specialised trade, vocational or occupational qualifications (e.g. catering, salesmanship, building management, etc.)	03	03	03																	
Clerical and commercial qualifications such as typing, shorthand, book-keeping, RSA/SCAPE and similar commercial certificates, RSA language certificate	04	04	04																	
City and Guilds	05	05	05																	
TICK ONE: <input type="checkbox"/> CERTIFICATE/INTERMEDIATE <input type="checkbox"/> FINAL <input type="checkbox"/> Don't know <input type="checkbox"/>																				
<input type="checkbox"/> FULL TECHNOLOGICAL																				
Ordinary National Certificate - ONC	06	06	06																	
Ordinary National Diploma - OND	07	07	07																	
Higher National Certificate - HNC	08	08	08																	
Higher National Diploma - HND	09	09	09																	
TICK ONE: <input type="checkbox"/> Yes (GIVE DETAILS) <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>																				
PROBE: EMPLOYMENTS/GRADUATESHIP OF INSTITUTION																				
Professional qualifications, including membership of a professional body (such as A.M.I.E.E./A.M.I.M.E./A.C.C. and fully qualified solicitors)	10	10	10																	
"University"/CMAA First Degrees (incl. B.Ed./Dip.Tech./Medical/dental/veterinary qualifications)																				
Ordinary	11	11	11																	
Honours	12	12	12																	
Dip.Tech.	13	13	13																	
University Degree - Higher (such as M.Sc., Ph.D., D.Sc., etc.)	14	14	14																	
University Diploma (excluding teaching diploma and excluding Dip. Tech.)	15	15	15																	
Qualifications or Certificate - Art, Music, Drama, Elocution, etc.	16	16	16																	
Nursing qualifications (SRN/SEN/RGN/etc.)	17	17	17																	
School Teaching qualification such as Teacher's Certificate/Certificate of Education	18	18	18																	
Others (specify)	19	19	19																	
NONE	20	20	20																	

13g. Did any of the following ever pay fees for his/her education: immediate family; other relatives; local authorities; trust or bursaries; or some other organisation or firm? (Probe Further/Higher Education)

- GET AGES/PERIODS
- Family 1
 - Relatives 2
 - Local Authorities 3
 - Trust/Bursaries 4
 - Firms/Businesses 5
 - Other (specify) 6
 - None 7 - GO TO Q.14a.

13h. What part of his/her education did that apply to? (Relate to 13g.)

- Primary 1
- Secondary 2
- FE/Higher Education 3

14a. MOTHER'S EDUCATION

TICK HERE IF ALREADY ASKED ABOUT MOTHER/FEMALE HEAD OF HOUSEHOLD AND SKIP TO 0.17.

When you were 14, were you living in the same household as your mother?

YES — SKIP TO 0.15a. NO

14b. At that time was there anyone else in your household who took the place of your mother?

YES (specify) _____ NO - SKIP TO 0.17

— (ASK Q. 15 - 16h. ABOUT MOTHER/SUBSTITUTE)

15a. When was she born?

MONTH _____ YEAR _____

15b. Where was she born?

TOWN/VILLAGE/PARISH _____ COUNTY _____ OR COUNTRY _____

Remember that we want the town/village/parish and county if in Scotland, England, Wales or N. Ireland. In the case of cities always try to get the name of the borough or district. Postal codes are not helpful and you should always probe for the name of the borough, or if that is not known, the name of the area.

Now I'd like you to think about her schooling. About what age did she leave Primary School? (Probe "Any Private Primary Education?"; Record P or N (none)).

16b. What kind of Secondary School did she go to?

Probe firmly: Encourage Respondent to think back. Try to get name(s), location(s) and dates. Probe "Any others?" Probe denomination: Record N-D (non-denominational); RC (Catholic); 0 (Other - specify). Do not give show card at first.

(SHOW CARD A)

None (stayed at Primary School/Primary Department of Elementary School) 01

CIRCLE ALL WHICH APPLY

Elementary School, Advanced Dept. or Division/Central School 02

Intermediate/Higher Grade (3 year) 03

Junior Secondary 04

"Short Comprehensive" 05

Senior Secondary/Higher Grade (5 year) 06

Grant aided School 07

Private School 08

Special School (e.g. Open Air, Blind, Deaf, Maladjusted) 09

English (specify) 10

Irish (specify) 11

Foreign Schools (Non UK or Ireland) 12

Other (specify) 13

D.K. 14

Age when left school

TICK HERE IF DON'T KNOW EXACT AGE BUT KNOW IT WAS SCHOOL LEAVING AGE

IF ATTENDED ONLY FOREIGN SCHOOLS - SKIP TO Q.16e.

16d. SCHOOL EXAMS (Hand Card B to Respondent)

6 Did she pass any of these exams?

NONE DON'T KNOW

SCOTLAND ONLY

Qualifying Exam/Eleven Plus 01
 1, 2 or 3 year Courses
 Merit Certificate/Day School Certificate (lower) 02
 Intermediate Certificate 03
 Day School Certificate (higher) 04
 Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificate (specify if possible) 05
 Other (specify) 06

4, 5 or 6 year Courses

Leaving Certificate/Senior Leaving Certificate/
 Higher Leaving Certificate/Scottish Leaving Certificate/
 Scottish Certificate of Education
 O Grade/Lower 07
 Higher Grade 08
 Honours Grade/Certificate of 6th Year Studies 09
 General Certificate of Education (GCE)
 O Level 10
 A Level 11
 University Preliminary Examinations
 O Grade/Lower Grade 12
 Higher Grade 13
 Other (specify) 14

ENGLISH OR IRISH

General Certificate of Education (GCE)
 O Level 15
 A Level 16
 Certificate of Secondary Education (CSE) 17
 School Certificate 18
 Matriculation 19
 Higher School Certificate 20
 Ireland (specify) 21
 Clerical and commercial qualifications, such as typing, shorthand, PSA commercial certificate (specify if possible) 22
 Other (specify) 23

CARD C1 CARD C2
 Did she at any time do any training or further education, either full-time or part-time? (What was that?) (How about training in a job, or later on in life?)

GIVE FULL DETAILS: Always give full details on field, length and nature of training, and kind of institution (for example, University, Polytechnic, Teacher Training, WEA, Adult Education, Residential College, College of Further Education, etc.) RELATE the codes circled to these details as explained in the instructions.

16f. FURTHER EDUCATION (Hand Card C to Respondent)
 Has/had she any of these qualifications? PROBE (Are there any others she perhaps doesn't/didn't use or you haven't mentioned?) (Did she ever start any?) (May not on this card)

DETAILS OF QUALIFICATIONS: E.g. Kind of Degree (and the "University" from which obtained), type of teaching or nursing qualification, name of professional body, name and grade of certificate, field, etc. For armed forces training, get details if not just military. For apprentices - give field. RELATE each qualification to the form of further education by which it was obtained as explained in the instructions.

Ordinary trade apprenticeship 01 01 01 01
 INDENTURED Don't know
 OTHER

Qualifications gained in Armed Forces 02 02 02 02
 Specialised trade, vocational or occupational qualifications (e.g. catering, salesmanship, building, management, etc) 03 03 03 03
 Clerical and commercial qualifications such as typing, shorthand, book-keeping, RSA/SCAPE and similar commercial certificates, RSA language certificate 04 04 04 04
 City and Guilds 05 05 05 05
 CERTIFICATE/INTERMEDIATE
 FINAL Don't know
 FULL TECHNOLOGICAL

Ordinary National Certificate - OHC 06 06 06 06
 Ordinary National Diploma - OHD 07 07 07 07
 Higher National Certificate - HNC 08 08 08 08
 Higher National Diploma - HND 09 09 09 09
 PROBE: ENDORSEMENTS/GRADUATESHIP Yes (GIVE DETAILS)
 OF INSTITUTION No Don't know

Professional qualifications, including membership of a professional body (such as A.M.T.E.E./A.H.I.M.E./A.C.C. and fully qualified solicitors) 10 10 10 10
 "University"/CIMA First Degrees (Incl. B.Ed./Dip.Tech./Medical/dental/veterinary qualifications)
 Ordinary 11 11 11 11
 Honours 12 12 12 12
 Dip.Tech. 13 13 13 13
 University Degree - Higher (such as M.Sc., Ph.D., D.Sc., etc.) 14 14 14 14
 University Diploma (excluding teaching diploma and excluding Dip. Tech.) 15 15 15 15
 Qualifications or Certificate - Art, Music, Drama, Elocution, etc. 16 16 16 16
 Nursing qualifications (SRN/SEN/RGN/etc.) 17 17 17 17
 School Teaching qualifications such as Teacher's Certificate/Certificate of Education 18 18 18 18
 Others (specify) 19 19 19 19

No further education 00
 Apprenticeship of any kind 01
 Articled to a Profession (e.g. accounting, surveying, law) 02
 In-firm training 03
 Day-release or Block Release 04
 Sandwich Course 05
 Part-time Vocational training, (But not in-firm, day-release or block release) 06
 Other part-time (leisure interests) 07
 Correspondence Course (vocational) 08
 Correspondence Course (leisure interests) 09
 Full-time 10

CIRCLE ALL WHICH APPLY

18. SECONDARY SCHOOLING

G Now I'd like you to think about his schooling. About what age did he leave Primary School? (Probe "Any Private Primary education?" ; Record P or N (None)).

18a. What kind of Secondary School did he go to ?

Probe firmly: Encourage Respondent to think back. Try to get name(s) location(s), and dates. Probe "Any others?" Probe denomination: Record N-D (non-denominational); RC (Catholic); O(Other - specify). Do not give show card at first.

(SHOW CARD A)

None (stayed at Primary School/Primary Department of Elementary School) 01

CIRCLE ALL WHICH APPLY

- Elementary School, Advanced Dept. or Division/ Central School 02
- Intermediate/Higher Grade (3 year) 03
- Junior Secondary 04
- "Short Comprehensive" 05
- Senior Secondary/Higher Grade (5 year) 06
- Grant Aided School 07
- Private School 08
- Special School (e.g. Open Air, Blind, Deaf, Maladjusted) 09
- English (specify) 10
- Irish (specify) 11
- Foreign Schools (Non UK or Ireland) 12
- Other (specify) 13
- D.K. 14

ASK: Was that a Comprehensive School for children of all abilities? YES NO

18b. Age when left school

- TICK HERE IF DON'T KNOW EXACT AGE BUT KNOW IT WAS SCHOOL LEAVING AGE
- TICK HERE IF STILL AT SCHOOL - SKIP TO Q.25.

16g. Did any of the following ever pay fees for her education: immediate family; other relatives; local authorities; trust or bursaries; or some other organisation or firm? (Probe Further/Higher Education).

GET AGES/PERIODS

- Family 1
- Relatives 2
- Local Authorities 3
- Trusts/Bursaries 4
- Firms/Businesses 5
- Others (specify) 6
- None 7 - GO TO Q.17.

16h. What part of her education did that apply to? (Relate to 16g.)

- Primary 1
- Secondary 2
- FE/Higher Education 3

17. Now I would like to ask you about all your brothers and sisters.

Collect year of birth - and death if any - of all brothers and sisters born alive: List eldest to youngest. Include adopted, step and half-brothers and sisters - Note this in the appropriate column.

If you cannot get this information, you MUST show the order of birth of brothers and sisters older than him, and the order of those younger than him. In the last column, number all BROTHERS from eldest to youngest, OMITTING ANY NOT YET 16 OR WHO DIED BEFORE THEIR 16TH BIRTHDAY.

Next, use the table below to choose which brother you must ask about in Questions 18 to 24. CIRCLE THE NUMBER OF THIS BROTHER.

SEX YEAR OF BIRTH OR AGE NOW OR AT DEATH DATE OF DEATH STEP/HALF ADOPTED NUMBER

TICK HERE IF NO BROTHERS OR SISTERS

TICK HERE IF NO BROTHER 16 YEARS OR OLDER

SKIP TO Q.25.

IF THE NUMBER OF BROTHERS AGED 16 OR OVER IS	CIRCLE NUMBER THAT APPLIES AND ASK ABOUT THAT BROTHER
1	1
2	1
3	1
4	2
5	2

18c. SCHOOL EXAMS

6 Did he pass any of these exams ? NONE DON'T KNOW (Hand Card B to Respondent)

Number of passes (where appropriate)

- Qualifying Exam/Eleven Plus 01
- 1, 2 or 3 year Courses
- Merit Certificate/Day School Certificate (lower) 02
- Intermediate Certificate 03
- Day School Certificate (higher) 04
- Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificates (specify if possible) 05
- Other (specify) 06

- 4, 5 or 6 year Courses
- Leaving Certificate/Senior Leaving Certificate/Higher Leaving Certificate/Scottish Leaving Certificate/Scottish Certificate of Education
 - 0 Grade/Lower 07
 - Higher Grade 08
 - Honours Grade/Certificate of 6th Year Studies 09
 - General Certificate of Education (GCE)
 - 0 Level 10
 - A Level 11
 - University Preliminary Examinations
 - 0 Grade/Lower Grade 12
 - Higher Grade 13
 - Other (specify) 14

- ENGLISH OR IRISH
- General Certificate of Education (GCE)
 - 0 Level 15
 - A Level 16
 - Certificate of Secondary Education (CSE) 17
 - School Certificate 18
 - Matriculation 19
 - Higher School Certificate 20
 - Ireland (specify) 21
 - Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificates (specify if possible) 22
 - Other (specify) 23

18d. FURTHER EDUCATION (Hand Card C to Respondent)

CARD C1 CARD C2

6 Did he at any time do any training or further education, either full-time or part-time? (What was that?) (How about training in a job, or later on in life?)

GIVE FULL DETAILS: Always give full details on field, length and nature of training, and kind of institution (for example, University, Polytechnic, Teacher Training, WEA, Adult Education, Residential College, College of Further Education, etc.) RELATE the codes circled to these details as explained in the instructions.

- CIRCLE ALL WHICH APPLY
- No further education 00
 - Apprenticeship of any kind 01
 - Articled to a Profession (e.g. accounting, surveying, law) 02
 - In-firm training 03
 - Day-release or Block Release 04
 - Sandwich Course 05
 - Part-time Vocational training (But not in-firm, day release or block release) 06
 - Other part-time (leisure interests) 07
 - Correspondence Course (vocational) 08
 - Correspondence Course (leisure interests) 09
 - Full-time 10

18f. Did any of the following ever pay fees for his education: immediate family; other relatives; local authorities; trust or bursaries; or some other organisation or firm? (Probe Further/Higher Education)

- GET AGES/PERIODS
- Family 1
 - Relatives 2
 - Local Authorities 3
 - Trusts/Bursaries 4
 - Firms/Businesses 5
 - Others (specify) 6
 - None 7 - GO TO Q.19.

18g. What part of his education did that apply to? (Relate to 18f.)

- G
- Primary 1
 - Secondary 2
 - FE/Higher Education 3

19. What was his very first full-time job after he finished his full-time education? (Full-time education means no gaps of more than two years, except for National Service).

TICK HERE IF NO JOB YET AND SKIP TO 0.25.

Occupation _____

Industry _____

- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with 25 or more employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- Other employee 9

20. How old was he when he started that job?

G CHECK THIS MAKES SENSE: PROBE jobs with minimum entry age e.g. nurses, policemen, apprentices, etc. Record any period of unemployment before starting work.

21. Where was he living then?

TOWN/VILLAGE/PARISH _____

COUNTY _____

OR COUNTRY _____

TICK HERE IF THEN LIVING WITH PARENTS

Has/had he any of these qualifications? PROBE (Are there any others he perhaps doesn't/didn't use or you haven't mentioned?) (Did he ever start any?) (Any not on this card?)

DETAILS OF QUALIFICATIONS: E.g. Kind of Degree (and the "University" from which obtained), type of teaching or nursing qualification, name of professional body, name and grade of certificate, field, etc. For armed forces training, get details if not just military. RELATE each qualification to the form of further education by which it was obtained - give field. RELATE each qualification to the form of further education by which it was obtained as explained in the instructions.

	DATES/AGES WORKING ON IT (Give starting and finishing dates/ages)	STARTED, STILL WORKING ON IT	COMPLETED	FAILED, NEVER COMPLETED
Ordinary trade apprenticeship	_____	01	01	01
INDENTURED	<input type="checkbox"/>			
OTHER	<input type="checkbox"/> Don't know			
Qualifications gained in Armed Forces	_____	02	02	02
Specialised trade, vocational or occupational qualifications, (e.g. catering, salesmanship, building, management, etc.)	_____	03	03	03
Clerical and commercial qualifications such as Typing, shorthand, book-keeping, RSA/SCAPE and similar commercial certificates, RSA language certificate	_____	04	04	04
City and Guilds	_____	05	05	05
TICK ONE: <input type="checkbox"/> CERTIFICATE/INTERMEDIATE				
<input type="checkbox"/> FINAL				
<input type="checkbox"/> FULL TECHNOLOGICAL				
Ordinary National Certificate - OMC	_____	06	06	06
Ordinary National Diploma - OND	_____	07	07	07
Higher National Certificate - HNC	_____	08	08	08
Higher National Diploma - HND	_____	09	09	09
PROBE: ENDORSEMENTS/GRADUATESHIP OF INSTITUTION				
<input type="checkbox"/> Yes (GIVE DETAILS)				
<input type="checkbox"/> No				
<input type="checkbox"/> Don't know				
Professional qualifications, including membership of a professional body (such as R.N.I., E.C., A.M.I.E., A.C.C. and fully qualified solicitors)	_____	10	10	10
"University"/CIAA First Degrees (incl. B.Ed./Dip.Tech./Medical/dental/veterinary qualifications)	_____			
Ordinary	_____	11	11	11
Honours	_____	12	12	12
Dip. Tech.	_____	13	13	13
University Degree - Higher (such as M.Sc., Ph.D., D.Sc., etc.)	_____	14	14	14
University Diploma (excluding teaching diploma and excluding Dip. Tech.)	_____	15	15	15
Qualifications or Certificate - Art, Music, Drama, Elocution, etc.	_____	16	16	16
Nursing qualifications (SRN/SEN/RGN/etc.)	_____	17	17	17
School Teaching qualifications such as Teacher's Certificate/Certificate of Education	_____	18	18	18
Others (specify)	_____	19	19	19
NONE	_____	20	20	20

18f. Did any of the following ever pay fees for his education: immediate family; other relatives; local authorities; trust or bursaries; or some other organisation or firm? (Probe Further/Higher Education)

- Family 1
- Relatives 2
- Local Authorities 3
- Trusts/Bursaries 4
- Firms/Businesses 5
- Others (specify) 6
- None 7 - GO TO Q.19.

GET AGES/PERIODS

18g. What part of his education did that apply to? (Relate to 18f.)

- Primary 1
- Secondary 2
- FE/Higher Education 3

19. What was his very first full-time job after he finished his full-time education? (Full-time education means no gaps of more than two years, except for National Service).

TICK HERE IF NO JOB YET AND SKIP TO Q.25.

Occupation _____

Industry _____

- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with 25 or more employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- Other employee 9

20. How old was he when he started that job?

CHECK THIS MAKES SENSE: PROBE jobs with minimum entry age e.g. nurses, policemen, apprentices, etc. Record any period of unemployment before starting work.

21. Where was he living then?

TOWN/VILLAGE/PARISH _____ COUNTY OR COUNTRY _____

TICK HERE IF THEN LIVING WITH PARENTS

22. What is your brother's job now? (What was his last job?)

TICK HERE IF EXACT SAME JOB AS BEFORE AND GO TO Q.23. TICK HERE IF NOT WORKING AND GET LAST FULL-TIME JOB AND DATE ENDED, AND REASON NOT WORKING.

- Occupation _____
- _____
- Industry _____
- _____
- Self-employed with 25 or more employees 1
 - Self-employed with less than 25 employees 2
 - Self-employed without employees 3
 - A Manager in an establishment with 25 or more employees 4
 - A Manager in an establishment with less than 25 employees 5
 - Foreman/Supervisor 6
 - Apprentices and Trainees 7
 - Family employee 8
 - Other employee 9

23. Where is he living now?

24. Does (did) he rent or own his own house?

TOWN/VILLAGE/PARISH _____ COUNTY OR COUNTRY _____

- Rent Council House/Flat 1
- Tied house 2
- Rent House/Flat (not council) 3
- Own/Buying 4
- Other (specify) 5

27b. GIVE CARD E TO RESPONDENT

How did you find out about that job? just tell me the letter. (PROBE "Any others? (Not on the card?)")

- A C E G I
- B D F H J - (Other - specify)

27c. Did anybody recommend you or help you get accepted for that job - such as

- Your father? 1
- Someone else in the family? .. 2
- Another relative? 3
- A friend? 4
- Someone else? 5 (specify)
- No-one 6

27d. GIVE CARD F TO RESPONDENT

Here are some reasons people give for where they work: When you took that job, which ones applied to you? (PROBE "Any others? (Not on the card?)": Get priorities)

- A C E G NONE
- B D F Other (specify) _____

27e. GIVE CARD G TO RESPONDENT

When you took that job, which of these did you take into account? (PROBE "Any others? (Not on the card?)": Get Priorities)

- A C E G I K NONE
- B D F H J L Other (specify) _____

27f. Where were you living then?

TOWN/VILLAGE/PARISH _____ COUNTY OR COUNTRY _____

27g. And did you rent or own your own home then?

- Rent Council House/Flat 1
- Tied House 2
- Rent House/Flat (not Council) 3
- Own/Buying 4
- Other (specify) 5

When you took that job, which of these did you take into account? (PROBE "Any others? (Not on the card?)": (Get priorities)

- A C E G I K NONE
- B D F H J L (Other - specify)

26f. Where were you living then?

TOWN/VILLAGE/PARISH _____ COUNTY OR COUNTRY _____

26g. Was that with your parents? YES NO

26h. Did you/they rent or own your/their own home?

- G Rent Council House/Flat 1
- Tied house 2
- Rent House/Flat (not Council) 3
- Own/Buying 4
- Other (specify) 5

IF 1963 OR LATER - SKIP TO Q.28a
IF BEFORE 1963 - GO TO Q.27a.

27a. Ten years later (that would be 19___/that would be when you were ___) what kind of work were you doing then?

- TICK HERE IF EXACT SAME JOB AS FIRST JOB AND GO TO Q.27f.
- TICK HERE IF NOT WORKING OR IN FORCES (BUT NOT A REGULAR) GET LAST FULL-TIME JOB, DATE WHEN LEFT JOB (OR PERIOD NOT WORKING) AND REASON NOT WORKING.
- Occupation (GET DATES/AGES, STARTED/FINISHED) _____
- _____
- _____
- Industry _____
- _____
- _____
- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with 25 or more employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- 9
- 0

TICK HERE IF EXACT SAME JOB AS 10 YEARS AFTER BEGINNING WORK, GO TO Q.28f.

TICK HERE IF NOT WORKING. GET LAST FULL-TIME JOB DATE WHEN LEFT JOB (OR PERIOD NOT WORKING) AND REASON NOT WORKING

Occupation (GET DATE/AGE STARTED) _____

Industry _____

- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with more than 25 employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- Other employee 9

28b. GIVE CARD E TO RESPONDENT

How did you find out about this job? - just tell me the letter. (PROBE "Any others? (Not on the card?)")

- A: C E G I
 - B: D F H J - (Other - specify) _____
- 28c. Did anybody recommend you or help you get accepted for this job - such as
- Your father? 1
 - Someone else in the family? 2
 - Another relative? 3
 - A friend? 4
 - Someone else? 5 (specify) _____
 - No-one 6

28d. GIVE CARD F TO RESPONDENT

Here are some reasons people give for where they work: When you took this job, which ones applied to you? (PROBE "Any others? (Not on the card?)": Get priorities)

- A C E G NONE
- B D F Other (specify) _____

28e. GIVE CARD G TO RESPONDENT

When you took this job, which of these did you take into account? (PROBE "Any others? (Not on the card?)": Get priorities)

- A C E F I K NONE
- B D G H J L (Other - specify) _____

do you rent or own this house?

Rent Council house/Flat 1

Tied House 2

Rent House/flat (not Council) 3

Own/Buying 4

Other (specify) 5

29a. Three years ago - that would be 1971 - Did you have the same job then?/ What kind of work were you doing then?

- TICK HERE IF EXACT SAME JOB AS NOW AND GO TO Q. 29f
- TICK HERE IF FIRST JOB WAS IN 1961 AND JOB TEN YEARS LATER (1971) HAS ALREADY GIVEN THIS INFORMATION AND SKIP TO Q. 29f.
- TICK HERE IF NOT WORKING. GET LAST FULL-TIME JOB AND REASON NOT WORKING.

Occupation (GET DATES/AGES, STARTED/FINISHED) _____

Industry _____

Industry _____

2

- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with 25 or more employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- Other employee 9

29b. GIVE CARD E TO RESPONDENT

How did you find out about that job? - just tell me the letter. (PROBE "Any others? (Not on the card?)")

- A C E G I
- B D F H J - (Other - specify) _____

29c. Did anybody recommend you or help you get accepted for that job - such as

Your father ? 1

Someone else in the family ? 2

Another relative ? 3

A friend ? 4

Someone else ? 5 (specify)

No-one 6

29d. GIVE CARD F TO RESPONDENT

Here are some reasons people give for where they work :

When you took that job, which ones applied to you? (PROBE "Any others?" (Not on the card?); Get priorities)

A C E G NONE

B D F Other (specify) _____

29e. GIVE CARD G TO RESPONDENT

When you took that job, which of these did you take into account ? (PROBE "Any others?" (Not on the card?); Get priorities)

A C E G I K NONE

B D F H J L Other (specify) _____

29f. And where were you living then ?

TOWN/VILLAGE/PARISH _____ COUNTY OR COUNTRY _____

29g. Did you rent or own your home ?

Rent Council house/Flat 1

Tied House 2

Rent House/Flat (not Council) 3

Own/Buying 4

Other (specify) 5

29h. So how long have you been living here in _____ Town/Village/District of City, etc.

_____ Years

30. Now if your employer decided to move your work to another town which would you prefer (a) to get a new job here, or (b) move house to another town and keep same job ?

(a) stay (b) move N/A

31 (a) Have you ever worked outside of Scotland ? (Where?) (How long?)

CIRCLE ALL WHICH APPLY Period/Dates

England/Males 1

N. Ireland 2

U.S.A. 3

Canada 4

Australia 5

Other (specify) 6

No 7

31 (b) Do you expect to work away from Scotland in the future ? (Where?)

Definitely Yes Possibly Yes Probably No Definitely No D.K.

31 (c) Would you take a job in England if a good one was available ?

Definitely Yes Possibly Yes Probably No Definitely No D.K.

32 (a) Have you ever been off work for 2 or more months at one time because of an accident or sickness ? (How often?) (What was wrong?) (RELATE TO Q.32b.)

IF NO GO TO Q. _____ (When?) _____

32 (b) When you went back to work after your accident/sickness did you go back to exactly the same job ?

YES _____ GO TO 33(a)

NO (How was it different?) (Was it a better job, or not such a good job? (Why?)) _____

32 (c) Did this accident/sickness affect the kind of job you have now: a lot, a little, not much, or not at all ?

A lot A little Not much Not at all Don't know

33 (a) Now thinking back over the whole of your working life; How many full-time jobs have you had altogether ? _____

Job means any clear change of task, responsibilities, or employers.

33 (b) And which of the jobs you've had do you think was the best job ? (Why?) (PROBE when, and whether one of the jobs already discussed).

_____ (Why?) _____

Ask these questions about the woman with whom he is living. If he is living alone (his wife being dead, divorced or separated) ask about her.

- 34a. Are you married ?
- Married 1
 Cohabiting 2 — GO TO Q.35
 Widower 3
 Divorced/Separated 4
 Single (i.e. never married) 5 — SKIP TO Q.47
- 34b. When were you married ? _____ YEAR/AGE
35. When was your wife/wife substitute born ? _____ YEAR/AGE
36. Where was she born ? _____

TOWN/VILLAGE/PARISH _____ COUNTY OR COUNTRY _____

- 37a. SECONDARY SCHOOLING
- G Now I'd like you to think about her schooling. About what age did she leave Primary School ? (Probe "Any Private Primary education?": Record P OR N (none)). _____
- 37b. What kind of Secondary School did she go to ? _____
- G Probe firmly: Encourage Respondent to think back. Try to get name(s), location(s), and dates. Probe "Any others?" Probe Denomination: Record N-D (non-denominational); RC (Catholic); 0 (Other - specify). Do not give show card at first.

- (SHOW CARD A)
- None (stayed at Primary School/Primary Department of Elementary School) 01
- CIRCLE ALL WHICH APPLY
- Elementary School, Advanced Dept. or Division/Central School 02
- Intermediate/Higher Grade (3 year) 03
- Junior Secondary 04
- "Short Comprehensive" 05
- Senior Secondary/Higher Grade (5 year) 06
- Grant Aided School 07
- Private School 08
- Special School (e.g. Open Air, Blind, Deaf, Maladjusted) 09
- English (specify) 10
- Irish (specify) 11
- Foreign Schools (Non UK or Ireland) 12
- Other (specify) 13
- ASK: Was that a Comprehensive School for children of all abilities ? YES NO

- 37c. Age when left school _____
- TICK HERE IF DON'T KNOW EXACT AGE BUT KNOW IT WAS SCHOOL LEAVING AGE
- IF ATTENDED ONLY FOREIGN SCHOOLS - SKIP TO Q.37e
- 37d. SCHOOL EXAMS (Hand Card B to Respondent)
- G Did she pass any of these exams ?
- NONE DON'T KNOW
- SCOTLAND ONLY
- Qualifying Exam/Eleven Plus 01
- 1, 2 or 3 year Courses
- Merit Certificate/Day School Certificate (lower) 02
- Intermediate Certificate 03
- Day School Certificate (higher) 04
- Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificate (specify if possible) 05
- Other (specify) 06
- 4, 5 or 6 year Courses
- Leaving Certificate/Senior Leaving Certificate/Higher Leaving Certificate/Scottish Leaving Certificate/Scottish Certificate of Education
- 0 Grade/Lower 07
- Higher Grade 08
- Honours Grade/Certificate of 6th Year Studies 09
- General Certificate of Education (GCE)
- 0 Level 10
- A Level 11
- University Preliminary Examinations
- 0 Grade/Lower Grade 12
- Higher Grade 13
- Other (specify) 14
- ENGLISH OR IRISH
- General Certificate of Education (GCE)
- 0 Level 15
- A Level 16
- Certificate of Secondary Education (CSE) 17
- School Certificate 18
- Matriculation 19
- Higher School Certificate 20
- Ireland (specify) 21
- Clerical and Commercial qualifications, such as typing shorthand, RSA commercial certificate (specify if possible) 22
- Other (specify) 23

37e. FURTHER EDUCATION

(Hand Card C to Respondent)

CARD C1 CARD C2

Did she at any time do any training or further education, either full-time or part-time? (What was that?) (How about training in a job, or later on in life?)

GIVE FULL DETAILS: Always give full details on field, length and nature of training, and kind of institution (for example, University, Polytechnic, Teacher Training, HEA, Adult Education, Residential College, College of Further Education, etc.) RELATE the codes circled to these details as explained in the instructions.

CIRCLE ALL WHICH APPLY

- No further education 00
- Apprenticeship of any kind 01
- Articled to a Profession (e.g. accounting, surveying, law) 02
- In-firm training 03
- Day-release or Block Release 04
- Sandwich Course 05
- Part-time Vocational training, (But not in-firm, day-release or block release) 06
- Other part-time (leisure interests) 07
- Correspondence Course (vocational) 08
- Correspondence Course (leisure interests) 09
- Full-time 10

6 Has/had she any of these qualifications? PROBE (Are there any others she perhaps doesn't/didn't use or you haven't mentioned?) (Did she ever start any?) (Any not on the card?)

DETAILS OF QUALIFICATIONS: E.g. Kind of Degree and the "University" from which obtained). Type of teaching or nursing qualification, name of professional body, name and grade of certificate, field, etc. For armed forces training, get details if not just military. RELATE each qualification to the form of further education by which it was obtained as explained in the instructions.

	DATES/AGES WORKING ON IT (Give starting and finishing dates/ages)	STARTED, STILL WORKING ON IT	COMPLICIT NEVER COMPLETED
Ordinary trade apprenticeship	.....	01	01 01
INDENTURED	<input type="checkbox"/>		
TICK ONE:	Don't know <input type="checkbox"/>		
OTHER	<input type="checkbox"/>		
Qualifications gained in Armed Forces	.....	02	02 02
Specialised trade, vocational or occupational qualifications (e.g. engineering, salesmanship, building, management, etc.)	.....	03	03 03
Clerical and commercial qualifications such as typing, shorthand, book-keeping, RSA/SCAPE and similar commercial certificates, RSA language certificate	.....	04	04 04
City and Guilds	.....	05	05 05
TICK ONE:	<input type="checkbox"/> CERTIFICATE/INTERMEDIATE <input type="checkbox"/> Don't know <input type="checkbox"/>		
	<input type="checkbox"/> FINAL <input type="checkbox"/>		
	<input type="checkbox"/> FULL TECHNOLOGICAL <input type="checkbox"/>		
Ordinary National Certificate - ONC	.....	06	06 06
Ordinary National Diploma - OND	.....	07	07 07
Higher National Certificate - HNC	.....	08	08 08
Higher National Diploma - HND	.....	09	09 09
PROBE: EMPLOYERS/GRADUATESHIP OF INSTITUTION			
	<input type="checkbox"/> Yes (GIVE DETAILS) <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>		
Professional qualifications, including membership of a professional body (such as A.M.I.E.E./A.M.I.E./A.C.C. and fully qualified solicitors)	.....	10	10 10
"University"/CMAA First Degrees (incl. B.Ed./Dip.Tech./Medical/dental/veterinary qualifications)	.....	
Ordinary	.....	11	11 11
Honours	.....	12	12 12
Dip. Tech.	.....	13	13 13
University Degree - Higher (such as H.Sc., Ph.D., D.Sc., etc.)	.....	14	14 14
University Diploma (excluding teaching diploma and excluding Dip. Tech.)	.....	15	15 15
Qualifications or Certificates - Art, Music, Drama, Elocution, etc.	.....	16	16 16
Nursing qualifications (SRN/SRN/RSN/etc.)	.....	17	17 17
School Teaching qualifications such as Teacher's Certificate/certificate of Education	.....	18	18 18
Others (specify) .....	.....	19	19 19

37g. Did any of the following ever pay fees for her education: immediate family; other relatives; local authorities; trusts or bursaries; or some other organisation or firm? (Probe Further/Higher Education).

- GET AGES/PERIODS
- Family
- Relatives
- Local Authorities
- Trusts/Bursaries
- Firms/Businesses
- Others (specify)
- None

37h. What part of her education did that apply to? (Relate to 33g.)

- Primary
- Secondary
- Further/Higher Education

38. And what was her very first job after she finished full-time education? (By full-time education, I mean a period of continuous education not interrupted for more than 2 years).

TICK HERE IF NOT HAD JOB YET AND SKIP TO 0. 43

Occupation (GET DATES/AGES, STARTED/FINISHED) _____

Industry _____

- Self-employed with 25 or more employees
- Self-employed with less than 25 employees
- Self-employed without employees
- A Manager in an establishment with 25 or more employees
- A Manager in an establishment with less than 25 employees
- Foreman/Supervisor
- Apprentices and Trainees
- Family employee
- Other employee

39. How old was she when she started that job? _____ AGE OR YEAR

CHECK THIS MAKES SENSE: Probe jobs with minimum entry age e.g. nurses, policemen, apprentices, etc. Record any period of unemployment before starting work.

40. Where was she living then?

TOWN/VILLAGE/PARISH - _____ COUNTY OR COUNTRY _____

41. What was her last full-time job before you got married?
 TICK HERE IF EXACT SAME JOB AS FIRST JOB. GO TO Q.42
 TICK HERE IF NOT WORKING. GET LAST FULL-TIME JOB, DATE WHEN LEFT JOB (OR PERIOD NOT WORKING) AND REASON NOT WORKING

Occupation (GET DATES/AGES, STARTED/FINISHED) _____

Industry _____

- Self-employed with 25 or more employees
- Self-employed with less than 25 employees
- Self-employed without employees
- A Manager in an establishment with 25 or more employees
- A Manager in an establishment with less than 25 employees
- Foreman/Supervisor
- Apprentices and Trainees
- Family employee
- Other employee

42. And does she have a full-time job now? (Probe part-time job)

TICK HERE IF EXACT SAME JOB AS AT MARRIAGE - GO TO Q.43
 TICK HERE IF NOT WORKING. GET LAST FULL-TIME JOB, DATE WHEN LEFT JOB (OR PERIOD NOT WORKING) AND REASON NOT WORKING

Occupation (GET DATES/AGES- STARTED) _____

Industry _____

- Self-employed with 25 or more employees
- Self-employed with less than 25 employees
- Self-employed without employees
- A Manager in an establishment with more than 25 employees
- A Manager in an establishment with less than 25 employees
- Foreman/Supervisor
- Apprentices and Trainees
- Family employee
- Other employee

43. When she was 14 was her father the head of the household ?

Father Other (specify) _____

Ask Q. 43a and 43b about father/father substitute

When she was 14, what was his job ?

TICK HERE IF NOT WORKING: GET LAST FULL-TIME JOB, DATE ENDED AND REASON NOT WORKING

TICK HERE IF IN FORCES (BUT NOT A REGULAR) AND GET JOB EFFORE ENTERING FORCES WITH DATE ENDED

Occupation (GET DATES/AGES, STARTED/FINISHED) _____

Industry _____

- 1 Self-employed with 25 or more employees
- 2 Self-employed with less than 25 employees
- 3 Self-employed without employees
- 4 A Manager in an establishment with 25 or more employees
- 5 Foreman/Supervisor
- 6 Apprentices and Trainees
- 7 Family employee
- 8 Other employee
- 9

43b. And when she married you, what was his job then ?

TICK HERE IF EXACT SAME JOB TICK HERE IF IN FORCES (BUT NOT A REGULAR) AND GET LAST JOB BEFORE

44 ENTERING FORCES WITH DATES ENDED

TICK HERE IF NOT WORKING: GET LAST FULL-TIME JOB, DATE ENDED AND REASON NOT WORKING.

Occupation (GET DATES/AGES, STARTED/FINISHED) _____

Industry _____

- 1 Self-employed with 25 or more employees
- 2 Self-employed with less than 25 employees
- 3 Self-employed without employees
- 4 A Manager in an establishment with 25 or more employees
- 5 A Manager in an establishment with less than 25 employees
- 6 Foreman/Supervisor
- 7 Apprentices and Trainees
- 8 Family employee
- 9

44. Now I'd like to ask you about your children.

Collect year of birth - and death - if any-of all children born alive. Include adopted, step and children of previous marriage and note this in the appropriate column.
 Number all SONS and ADOPTED SONS of this marriage OMITTING ANY NOT YET 16 OR WHO DIED BEFORE THEIR 16TH BIRTHDAY.
 Then use the selection table on page 20 to find out which son you must ask Q. 45a to 0.46b about.

SEX	YEAR OF BIRTH	DEATH	ADOPTED STEP/PREVIOUS	NUMBER

IF NO SON 16 OR OLDER - SKIP TO 0.47

45a. Now I'd like you to think about his schooling. About what age did he Leave Primary School ? _____

45b. What kind of Secondary School did he go to ? _____

Probe firmly: Encourage Respondent to think back. Try to get name(s), location(s), and dates. Probe "Any others"? Probe Denomination: Record N-D (non-denominational); RC (Catholic); 0 (Other - specify). Do not give show card at first.

45c. At what age did he leave school ? _____

45d. Was any part of his schooling at a private school ? _____

TICK HERE IF STILL AT SCHOOL AND SKIP TO 0.47.

G Did he pass any of these exams? (PROBE: Exams taken after leaving School; Record F/E).

NONE DON'T KNOW

SCOTLAND ONLY

Qualifying Exam/Eleven Plus 01
 1, 2 or 3 year Courses
 Merit Certificate/Day School Certificate (lower) 02
 Intermediate Certificate 03
 Day School Certificate (higher) 04
 Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificates (specify if possible). 05
 Other (specify) 06

4, 5 and 6 year Courses
 Leaving Certificate/Senior Leaving Certificate/
 Higher Leaving Certificate/Scottish Leaving Certificate/
 Scottish Certificate of Education
 O Grade/Lower 07
 Higher Grade 08
 Honours Grade/Certificate of 6th Year Studies 09

General Certificate of Education (GCE)
 O Level 10
 A Level 11
 University Preliminary Examinations
 O Grade/Lower Grade 12
 Higher Grade 13
 Other (specify) 14

ENGLISH OR IRISH
 General Certificate of Education (GCE)
 O Level 15
 A Level 16
 Certificate of Secondary Education (CSE) 17
 School Certificate 18
 Matriculation 19
 Higher School Certificate 20
 Ireland (specify) 21
 Clerical and commercial qualifications, such as typing, shorthand, RSA commercial certificates (specify if possible).. 22
 Other (specify) 23

or you haven't mentioned? (Did he ever start any?) (Any not on this card?)

DETAILS OF QUALIFICATIONS: E.g. Kind of degree (and the "University" from which obtained), type of teaching or nursing qualification, name of professional body, name and grade of certificate, field, etc. For armed forces training, get details if not in the ordinary. For apprentices - give field. RELATE each qualification to the form of further education by which it was obtained as explained in the instructions.

DATE/AGES WORKING ON IT (Give starting and finishing dates/ages)	STARTED STILL WORKING ON IT	COMPLETED	FAILED, NEVER COMPLETED
Ordinary trade apprenticeship	<input type="checkbox"/> 01	<input type="checkbox"/> 01	<input type="checkbox"/> 01
TICK ONE: INDEBTURED <input type="checkbox"/> Don't know <input type="checkbox"/>			
OTHER <input type="checkbox"/>			
Qualifications gained in Armed Forces	<input type="checkbox"/> 02	<input type="checkbox"/> 02	<input type="checkbox"/> 02
Specialised trade, vocational or occupational qualifications, (e.g. catering, salesmanship, building, management, etc.)	<input type="checkbox"/> 03	<input type="checkbox"/> 03	<input type="checkbox"/> 03
Clerical and commercial qualifications such as typing, shorthand, book-keeping, RSJ/SCAPE and similar commercial certificates, PSA language certificate	<input type="checkbox"/> 04	<input type="checkbox"/> 04	<input type="checkbox"/> 04
City and Guilds	<input type="checkbox"/> 05	<input type="checkbox"/> 05	<input type="checkbox"/> 05
TICK ONE: <input type="checkbox"/> CERTIFICATE/INTERMEDIATE <input type="checkbox"/> FINISH <input type="checkbox"/> Don't know <input type="checkbox"/>			
<input type="checkbox"/> FULL TECHNOLOGICAL			
Ordinary National Certificate - ONC	<input type="checkbox"/> 06	<input type="checkbox"/> 06	<input type="checkbox"/> 06
Ordinary National Diploma - OND	<input type="checkbox"/> 07	<input type="checkbox"/> 07	<input type="checkbox"/> 07
Higher National Certificate - HNC	<input type="checkbox"/> 08	<input type="checkbox"/> 08	<input type="checkbox"/> 08
Higher National Diploma - HND	<input type="checkbox"/> 09	<input type="checkbox"/> 09	<input type="checkbox"/> 09
PROBE: ENDORSEMENTS/GRADUATESHIP OF INSTITUTION	<input type="checkbox"/> Yes (GIVE DETAILS)	<input type="checkbox"/> No	<input type="checkbox"/> Don't know
Professional qualifications, including membership of a professional body (such as A.M.T.E.E./A.M.I.M.E./A.C.C. and fully qualified solicitors)	<input type="checkbox"/> 10	<input type="checkbox"/> 10	<input type="checkbox"/> 10
"University"/CIMA First Degrees (incl. B.Ed./Dip.Tech./Medical/dental/veterinary qualifications)	<input type="checkbox"/> 11	<input type="checkbox"/> 11	<input type="checkbox"/> 11
Ordinary	<input type="checkbox"/> 12	<input type="checkbox"/> 12	<input type="checkbox"/> 12
Honours	<input type="checkbox"/> 13	<input type="checkbox"/> 13	<input type="checkbox"/> 13
Dip. Tech.	<input type="checkbox"/> 14	<input type="checkbox"/> 14	<input type="checkbox"/> 14
University Degree - Higher (such as M.Sc., Ph.D., D.Sc., etc.)	<input type="checkbox"/> 15	<input type="checkbox"/> 15	<input type="checkbox"/> 15
University Diploma (excluding teaching diploma and excluding Dip. Tech.)	<input type="checkbox"/> 16	<input type="checkbox"/> 16	<input type="checkbox"/> 16
Qualifications or Certificate - Art, Music, Drama, Education, etc.	<input type="checkbox"/> 17	<input type="checkbox"/> 17	<input type="checkbox"/> 17
Nursing qualifications (SRN/SEN/RGN/etc.)	<input type="checkbox"/> 18	<input type="checkbox"/> 18	<input type="checkbox"/> 18
School teaching qualifications such as Teacher's Certificate/Certificate of Education	<input type="checkbox"/> 19	<input type="checkbox"/> 19	<input type="checkbox"/> 19
Others (specify)	<input type="checkbox"/> 20	<input type="checkbox"/> 20	<input type="checkbox"/> 20
NONE	<input type="checkbox"/> 21	<input type="checkbox"/> 21	<input type="checkbox"/> 21

Deep Freeze

- Deep Freeze 1
- Telephone 2
- Television 3
- Refrigerator 4
- Unshared use of a kitchen 5
- Unshared use of a bathroom 6
- An inside lavatory 7
- A fixed bath or shower 8
- Piped hot water to a sink 9
- None 0

He mean unshared use of a telephone, a refrigerator, etc., that is used only by the family and not shared with anybody outside of the household.

48. Do you have a car ? YES NO

49. Now I would like to ask you a few questions about your own views and activities. (Hand Card H to Respondent) Do you belong to any Clubs or organisations or anything like that ? (Probe others).

Probe membership and TICK FOR HIGHEST LEVEL OF INVOLVEMENT. Note supplementary question for Trade Unions and Churches.

NONE

Not very active Active Official

Residents or Tenants Association			
Political Party			
Parent Teacher Association			
Trade Union (Do you have to belong to the Union to keep your job ?			
YES <input type="checkbox"/> NO <input type="checkbox"/>			
Church-denomination ?			
Church Social Group			
British Legion			
Sports Club			
Hobby Club			
Lodge or Mutual Aid Society			
Working Men's Club			
Social Club			
Professional Association			
Other (specify)			

TICK HERE IF NOT YET COMPLETED. SKIP TO Q.47.

FULL-TIME EDUCATION MEANS NO GAPS OF MORE THAN 2 YEARS EXCEPT FOR NATIONAL SERVICE.

46a. What was his very first full-time job after finishing full-time education?

- TICK HERE IF NO JOB YET AND GO TO Q. 47
- TICK HERE IF NOT WORKING, GET LAST FULL-TIME JOB, DATE WHEN LEFT LAST JOB (OR PERIOD NOT WORKING) AND REASON NOT WORKING.

Occupation (GET DATES/AGES, STARTED/FINISHED) _____

 Industry _____

- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with 25 or more employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- Other employee 9

46b. What is his job now ?

TICK HERE IF EXACT SAME JOB AND GO TO Q.47.

TICK HERE IF NOT WORKING, GET LAST FULL-TIME JOB, DATE AND WHEN LEFT LAST JOB (OR PERIOD NOT WORKING) AND REASON NOT WORKING.

Occupation (GET DATES/AGES, STARTED/FINISHED) _____

 Industry _____

- Self-employed with 25 or more employees 1
- Self-employed with less than 25 employees 2
- Self-employed without employees 3
- A Manager in an establishment with 25 or more employees 4
- A Manager in an establishment with less than 25 employees 5
- Foreman/Supervisor 6
- Apprentices and Trainees 7
- Family employee 8
- Other employee 9

IF NOT MARRIED - SKIP TO 0.52a

51a. Ask about parents-in-law (or substitutes referred to earlier). Get whether living or dead and place living now.

Active/Dead	TOWN/VILLAGE/PARISH	COUNTY OR COUNTRY
MOTHER-IN-LAW		
FATHER-IN-LAW		

TICK HERE IF LIVING IN THIS HOUSE
 TICK HERE IF BOTH DEAD } SKIP TO 0.52a

51b. In the past year how often did you (or your wife) see your (mother-in-law and/or father-in-law): daily, weekly, monthly, a few times, only for special occasions, or never?

Daily Weekly Monthly
 A few times Special Occasions Never IF NEVER - SKIP TO 0.51d

51c. GIVE CARD I TO RESPONDENT

Can you tell me all the reasons why you (or your wife) saw your (mother-in-law and/or father-in-law) in the last year? - just tell me the letter. (Any others?) (Not on the card) (PROBE ORDER OF PRIORITIES)

A C E G I
 B D F H J (specify) _____

51d. Apart from seeing your (mother-in-law and/or father-in-law), how often were you (or your wife) in touch by letter or telephone - daily, weekly, monthly, a few times, for special occasions, or never?

Daily Weekly Monthly
 A few times Special Occasions Never IF NEVER - SKIP TO 0.51f

51e. GIVE CARD I TO RESPONDENT

Can you tell me all the reasons why you (or your wife) contacted your (mother-in-law and/or father-in-law) in the last year? (Any others?) (Not on the card) (PROBE ORDER OF PRIORITIES)

A C E G I
 B D F H J (specify) _____

51f. How strongly do you agree or disagree that people have a duty to keep in close touch with their parents-in-law?

Strongly agree Agree Disagree Strongly disagree D.K.

51g. Would you say that you have a lot in common with your parents-in-law, or something in common, or not very much in common, or very little in common?

Lot Something Not very much Little D.K.

51h. Do you find your parents-in-law's company very pleasant, or pleasant, or a bit of a strain, or quite a strain?

Very pleasant Pleasant A bit of a strain Quite a strain D.K.

Ask about mother and father (or substitute referred to in earlier questions). Get whether living or dead, (remember earlier questions) and place living now.

Active/Dead	TOWN/VILLAGE/PARISH	COUNTY OR COUNTRY
MOTHER		
FATHER		

TICK HERE IF LIVING IN THIS HOUSE } SKIP TO Q.51a
 TICK HERE IF BOTH DEAD }

50b. In the past year how often did you (or your wife) see your (mother and/or father): daily, weekly, monthly, a few times, only for special occasions, or never?

Daily Weekly Monthly
 A few times Special occasions Never IF NEVER - SKIP TO Q.50d

50c. GIVE CARD I TO RESPONDENT

Can you tell me all the reasons why you (or your wife) saw your (mother and/or father) in the last year? - just tell me the letter. (Any others?) (Not on the card) (PROBE ORDER OF PRIORITIES)

A C E G I
 B D F H J (specify) _____

50d. Apart from seeing your (mother and/or father), how often were you (or your wife) in touch by letter or telephone - daily, weekly, monthly, a few times, for special occasions, or never?

Daily Weekly Monthly
 A few times Special occasions Never IF NEVER - SKIP TO Q.50f

50e. GIVE CARD I TO RESPONDENT

Can you tell me all the reasons why you (or your wife) contacted your (mother and/or father) in the last year? (Any others?) (Not on the card) (PROBE ORDER OF PRIORITIES)

A C E G I
 B D F H J (specify) _____

50f. How strongly do you agree or disagree that people have a duty to keep in close touch with their parents?

Strongly agree Agree Disagree Strongly disagree D.K.

50g. Would you say you have a lot in common with your parents, or something in common, or not very much in common, or very little in common?

Lot Something Not very much Little D.K.

50h. Do you find your parents' company very pleasant, or pleasant, or a bit of a strain, or quite a strain?

Very pleasant Pleasant A bit of a strain Quite a strain D.K.

ALL ANSWERS TO BE WRITTEN ON PAGE 50

53 (a) How I want you to think of all your other relatives, not the ones we've been talking about. In the last year, how many of these other relatives have you spent some time with? (Any others?)

53 (b) How you say you've got together with many separate occasions would that be in all - if you added them all together?

Couples count as one. Ask all Q. 54 for each person in turn. PROBE to obtain choices: Remind Respondent it need not be friends.

54 How I would like you to think of three people who you most often spend your spare time with; I mean not counting your wife and children. Could you tell me their first names so that I can ask a few questions about them?

54 (a) Is _____ a relative, a friend, or an acquaintance?

54 (b) How long have you known _____?

54 (c) What is _____'s job?

If not working get last main job and period not working if known.

54 (d) Where does _____ live: In this neighbourhood, or within a few miles, or further away?

54 (e) On average how often would you get together with _____ More than once a week, once a month, 2 or 3 times a month, once a month, several times a year or rarely?

54 (f) Does _____ get together with any of your relatives? NOW REPEAT Q. 54 a - f for remaining friend(s).

55 How these (3) people: do they know each other? How about _____ (1st) and _____ (2nd)

PROBE friends/acquaintances/relatives. Make sure for 1st and 2nd; 1st and 3rd; and 2nd and 3rd.

52a. IF NO BROTHER ASKED ABOUT OR BROTHER DEAD, SKIP TO Q. 53a. Ask about same brother as before: Get place living now or last known place.

TOWN/VILLAGE/PARISH _____ COUNTY OR COUNTRY _____

TICK HERE IF LIVING IN THIS HOUSE AND SKIP TO Q. 53a

52b. In the past year how often did you (or your wife) see your brother: daily, weekly, monthly, a few times, only for special occasions, or never?

Daily Weekly Monthly

A few times Special occasions Never IF NEVER - SKIP TO Q. 52d

52c. GIVE CARD I TO RESPONDENT Can you tell me all the reasons why you (or your wife) saw your brother in the last year? - Just tell me the letter. (Any others?) (Not on the card) (PROBE ORDER OF PRIORITIES)

A C E G I
B D F H J (specify) _____

52d. Apart from seeing your brother, how often were you (or your wife) in touch by letter or telephone - daily, weekly, monthly, a few times, for special occasions, or never?

Daily Weekly Monthly

A few times Special occasions Never IF NEVER - SKIP TO Q. 52f

52e. GIVE CARD I TO RESPONDENT Can you tell me all the reasons why you (or your wife) contacted your brother in the last year? (Any others?) (Not on the card) (PROBE ORDER OF PRIORITIES).

A C E G I
B D F H J (specify) _____

52f. How strongly do you agree that brothers have a duty to keep in close touch with each other?

Strongly agree Agree Disagree Strongly disagree D.K.

52g. Would you say you have a lot in common with your brother, or something in common, or not very much in common, or very little in common?

Lot Something Not very much Little D.K.

52h. Do you find your brother's company very pleasant, or pleasant, or a bit of a strain, or quite a strain?

Very pleasant Pleasant A bit of a strain Quite a strain D.K.

53 (a)

53 (b)

(Hand Card J to Respondent) CARD J (1) CARD J (2)

56a. Could you tell me your normal average earnings; I mean including ordinary amounts of overtime and before deductions - from your main job? WHICH of these categories would it come into? You needn't mention the amount - just tell me which letter it is.

Income in this question refers to the income from present job - that is the job described in answer to Q.28a for people who are now employed. Please PROBE to be certain that this is the case. If the respondent is not now working; do not ask the question, just circle 'not working'.

You should explain to self-employed people that income means the total income assessed for tax, that is any money drawn out of the business weekly, plus any money in the form of profits at the end of the year.

- A D G J M REFUSED - END
 CIRCLE B E H K N INTERVIEW
 C F I L O NOT WORKING

56b.

And what would your normal average take-home pay be, after all deductions like tax, national insurance and so on?

- A D G J M REFUSED - END
 CIRCLE B E H K N INTERVIEW
 C F I L O NOT WORKING

(Hand Card k to Respondent)

57a. Some people have other sources of income besides their main job, like these on the card. Could you tell me if you receive income from any of these - just tell me which letter or letters apply. (Any others (not on the card?))

- CIRCLE P W U S REFUSED - END
 ALL WHICH APPLY T R X Y INTERVIEW
 Other (specify) _____ None

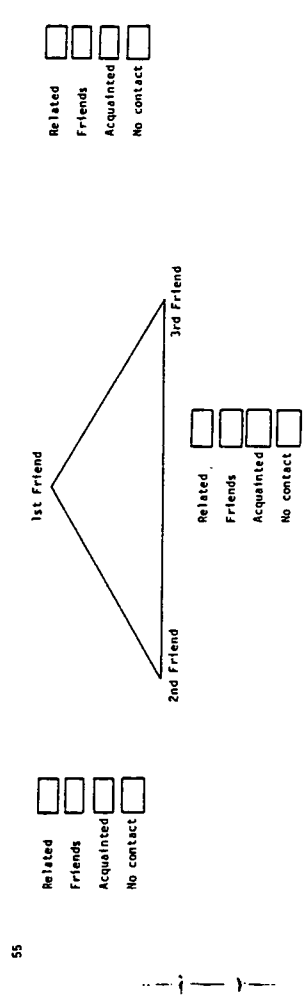
57b.

Ask for each letter mentioned - You say you have some income from Looking at Card I (the other card) which letter on that one applies to how much you actually receive after tax etc.

RELATE income to source.

- CIRCLE A D G J M REFUSED
 ALL WHICH APPLY B E H K N INTERVIEW
 C F I L O

	1st Friend	2nd Friend	3rd Friend
54 SEX/COUPLES	Relative Friend <input type="checkbox"/> Acquaintance <input type="checkbox"/>	Relative Friend <input type="checkbox"/> Acquaintance <input type="checkbox"/>	Relative Friend <input type="checkbox"/> Acquaintance <input type="checkbox"/>
54 (a)	Relative Friend <input type="checkbox"/> Acquaintance <input type="checkbox"/>	Relative Friend <input type="checkbox"/> Acquaintance <input type="checkbox"/>	Relative Friend <input type="checkbox"/> Acquaintance <input type="checkbox"/>
54 (b)			
54 (c) Occupation			
54 (d) Industry	Neighbourhood <input type="checkbox"/> A few miles <input type="checkbox"/> Further away <input type="checkbox"/>	Neighbourhood <input type="checkbox"/> A few miles <input type="checkbox"/> Further away <input type="checkbox"/>	Neighbourhood <input type="checkbox"/> A few miles <input type="checkbox"/> Further away <input type="checkbox"/>
54 (e)	More than once a week <input type="checkbox"/> Once a week <input type="checkbox"/> 2 or 3 times a month <input type="checkbox"/> Once a month <input type="checkbox"/> Several times a year <input type="checkbox"/> Rarely <input type="checkbox"/>	More than once a week <input type="checkbox"/> Once a week <input type="checkbox"/> 2 or 3 times a month <input type="checkbox"/> Once a month <input type="checkbox"/> Several times a year <input type="checkbox"/> Rarely <input type="checkbox"/>	More than once a week <input type="checkbox"/> Once a week <input type="checkbox"/> 2 or 3 times a month <input type="checkbox"/> Once a month <input type="checkbox"/> Several times a year <input type="checkbox"/> Rarely <input type="checkbox"/>
54 (f)	With R's parents <input type="checkbox"/> With R's parents-in-law <input type="checkbox"/> With R's brother <input type="checkbox"/> With others (number) _____	With R's parents <input type="checkbox"/> With R's parents-in-law <input type="checkbox"/> With R's brother <input type="checkbox"/> With others (number) _____	With R's parents <input type="checkbox"/> With R's parents-in-law <input type="checkbox"/> With R's brother <input type="checkbox"/> With others (number) _____



BIBLIOGRAPHY

- AARONVITCH, S. (1955) Monopoly: A Study of British Monopoly Capitalism. Lawrence & Wishart, London.
- ABERCROMBIE, N., & URRY, J. (1982) Capital, Labour and the Middle Classes. Allen & Unwin, London.
- ABRAMS, P. (1978) Work, Urbanism & Inequality. Weidenfeld & Nicholson, London.
- ADAMS, B.N. (1968) Kinship in an Urban Setting. Markham, Chicago.
- ALEXANDER, C.N. (1972) 'Status Perceptions', A.S.R., Vol. 37.
- ALLEN, B. & BYTHEWAY, W. (1963) 'The Effects of Differential Fertility on sampling in studies of Inter-generational Social Mobility.' Sociology, Vol 7, No 2.
- ANDERSON, A. (1976) A loglinear model of changing mobility rates in the Scottish Mobility Study. Working Paper No 10, SMS, University of Aberdeen (unpub).
- ANDERSON, M. (ed) 1971 Sociology of the Family. Penguin, Harmsworth.
- ANDERSON, M. (1974) 'Sociological Research Activity in Scotland'. Paper read at the British Association Meeting (Section N), University of Stirling, Sept 1974.
- ANDERSON, P. (1974) Passages from Antiquity to Feudalism. New Left Books, London.
- APPELBAUM, R. (1971) Theories of Social Change. Markham, Chicago.
- ARON, R. (1967a) The Industrial Society. Praeger, New York.
- ARON, R. (1967b) 18 Lectures on Industrial Society. Weidenfeld and Nicholson, London.
- ASKHAM, J. (1969) 'Delineation of the Lowest Social Class'. J. Biosocial Science. Vol 1
- AVERITT, R.T. (1965) The Dual Economy; The Dynamics of American Industry Structure. Free Press, Glencoe.
- BAIN, G. et al (1972) 'The Labour Force' in Halsey, A.H. (ed). Trends in British Society Since 1900. Macmillan, London, 1972.

- BANFIELD, E. W. (1958) The Moral Basis of a Backward Society. Free Press, New York.
- BANKS, J. A. (1954) Prosperity and Parenthood. RKP, London.
- BANKS, J. A. (1964) 'The Structure of Industrial Enterprise in Industrial Society' in Halmos, P, (ed) (1964) q.v.
- BANKS, J. A. (1967) 'The B.S.A. - the first 15 years'. Sociology, Vol 1; No 1.
- BANKS, J. C. (1971) Federal Britain. Harrup, London.
- BARAN, P. (1957) The Political Economy of Growth. Calder, London.
- BARKER, D. (1972) 'Young people and their Homes', Sociological Review, Vol 20, No 4.
- BARRON, R. D. & NORRIS, G. M. (1976) 'Sexual Divisions and the Dual Labour Market', in Barker, D., and Allen, S., (Eds) (1976) Dependence and Exploitation in Work and Marriage. Longman, London.
- BECHHOFFER, F. (1969) 'Occupation' in Stacey, M. (ed), (1969). Comparability in Social Research, Heinemann, London.
- BELL, C. (1968) 'Mobility and the Middle Class Extended Family'. Sociology, Vol 2, No 2.
- BELL, C. & NEWBY, H. (1977) Doing Sociological Research. Allen & Unwin, London. (See also Newby and Bell).
- BELL, D. (1974) The Coming of Post Industrial Society. Heinemann, London.
- BELSHAW, C. (1965) Traditional Exchange and Modern Markets. Prentice Hall, Englewood Cliffs.
- BENDIX, R. (1969) 'Indexes of Bureaucratization' in Faunce, W., and Form, W., (1969) Comparative Perspectives on Industrial Society. Little, Brown, Boston.
- (published earlier as Bendix, R., (1956) Work and Authority in Industry. Wiley, New York.
- BENDIX, R. & LIPSET, S. (1959) Social Mobility and Industrial Society. University of California Press, Los Angeles.

- BRAVERMAN, H. (1974) Labour and Monopoly Capitalism. Monthly Press Review, New York.
- BRITTEN, N. & HEATH, A. (1983) 'Women, Men and Social Class' in Gamarnikow, E, et al (eds) (1983). Gender, Class and Work. Heinemann, London.
- BROWN, A. J. (1969) 'Some English Thoughts on the Scottish Economy'. Scottish Journal of Political Economy. Nov.
- BROWN, G. (ed) (1975) The Red Paper on Scotland. EUSBP Edinburgh.
- BROWN, G. & COOKE, R. (1983) Scotland: The Real Divide. Mainstream Press Edinburgh.
- BROWN, R. K. (1978) "Work" in P. Abrams, (ed) (1978) Work Urbanism & Inequality. Weidenfeld & Nicholson, London.
- BROWN, R. & BRENNEN, P. (1970) 'Social Relations and Social Perspectives Amongst Shipbuilding Workers' Sociology, Vol 4.
- BROWNING, H. L. & SINGELMAN, J. (1978) 'The Transformation of the U.S. Labour Force' in Politics and Society, Vol 8, No 4.
- BRYDEN, J. (1979) 'Core-Periphery, Problems - the Scottish Case' in Seers, D. et al (eds) (1979) q.v.
- BUCHANON, K. (1968) 'The Revolt Against Satellisation in Scotland and Wales: Monthly Review, Vol 19.
- BUDGE, I. & URWIN, D. (1966) Scottish Political Behaviour. Longmans, London.
- BURNHAM, J. (1945) The Managerial Revolution, Penguin, Harmondsworth.
- BUSFIELD, J. & PADDON, M. (1977) Thinking about Children. CUP, Cambridge.
- BUTLER, D. & STOKES, D. (1969) Political Change in Britain. MacMillan, London.
- BUTTERWORTH, E. & WEIR, D. (eds) (1975) The Sociology of Modern Britain. Fontana, London.
- CAIRNCROSS, A. K. (ed) (1954) The Scottish Economy. CUP, Cambridge.
- CALDER, A. (1971) The People's War. Panther, London.
- CAMPBELL, R. M. (1965) Scotland since 1707. O.U.P., Oxford.
- CARADOG JONES, D. (ed) (1934) The Social Survey of Merseyside, Vol 2, London.

- CARCHEDI, G. (1975) On the Economic Identification of the New Middle Class. Economy and Society, Vol 4, No 1.
- CARCHEDI, G. (1977) On the Economic Identification of Social Classes. RKP, London.
- CARNEY, J. (1980) 'Regions in Crisis: Accumulation, Regional Problems and Crisis Formation' in J. Carney et al, 1980, q.v.
- CARNEY, J. HUDSON, R. & LEWIS, J. (eds) (1980) Regions in Crisis. Croom Helm. London.
- CARR-SAUNDERS A. M. (et al) (1958) A Survey of Social Conditions in England and Wales as Illustrated by Statistics. OUP Oxford, 1958.
- CARTER, I. (1974) 'The Highlands of Scotland as an Underdeveloped Region' in E deKadt & G. Williams (eds) (1974) Sociology and Development. Tavistock, London.
- CARTER, I. (1971) 'Economic Models and the Recent History of the Highlands'. Scottish Studies Vol 15.
- CARTER, I. (1975) 'A Socialist Strategy for the Highlands' in G. Brown (ed) (1975) The Red Paper on Scotland, EUSPB, Edinburgh.
- CARTER, M. P. (1966) Into Work. Penguin, Harmondsworth.
- CHAPMAN, A. et al (1984) 'Disaggregating Mobility', BSA Conference, Bradford, April.
- CHESSA, F. (1912) La Trasmissione Ereditaria della Professioni. Fratelli Bocca, Editori, Turin.
- CHINOY, E. (1955) 'Social Mobility Trends in the United States'. ASR, Vol 20.
- CLAPHAM REPORT (1946) Report of the Committee on the Provision for Social and Economic Research, HMSO, London.
- CLARKE, C. (1957) The Conditions of Economic Progress (3rd Edn) Macmillan, London.
- CLEGG, S. & DUNKERLEY, D. (1980) Organization, Class and Control. RKP, London.
- CLOWARD, R. A., & JONES, J. A. (1963) 'Social Class: Educational Attitudes and Participation' in Passow, H. A. (1963) Education in Depressed Areas, N.Y. Bureau of Publications, Teacher College, Columbia University, New York.

- COLE, G.D.H. & POSTGATE, R. (1961) The Common People, Methuen, London.
- COLEMAN, R.P. & RAINWATER, L. (1979) Social Standing in America. RKP, London.
- COTGROVE, S. (1967) The Science of Society. (2nd Ed) Allen & Unwin, London.
- COXON, A.P.M., & JONES C. L. (1974) Occupational Categorisation and Images of Society. POOC W.P. No 4, Dept. of Sociology, University of Edinburgh, Edinburgh (xerox).
- COXON, A. & JONES, C. (1979) Class and Hierarchy. MacMillan, London.
- CROMPTON, R. (1980) 'Class Mobility and Modern Britain'. Sociology, Vol 14, No 1.
- CROMPTON, R. & GUBBAY, J. (1977) Economy and Class Structure. Macmillan, London.
- CROMPTON, R. & JONES, G. (1981) 'Clerical Proletarianisation' Paper presented to BSA Conference, Aberystwyth, April 1981, xerox.
- CROSLAND, A. (1956) The Future of Socialism. Cape, London.
- CROWDER, N. D. (1974) 'A Critique of Duncan's Stratification Research'. Sociology, Vol 8.
- CRUIKSHANK, K. & McMANUS, C. (1976) 'Getting into Medicine'. New Society, 15.1.76.
- CULLINGWORTH, J. B. (1972) Problems of an Urban Society, Vol 1. Allen & Unwin, London.
- CUTRIGHT, P. (1968) 'Occupational Inheritance'. AJS Vol 73.
- DAHRENDORF, R. (1959) Class and Class Conflict in Industrial Society. RKP, London.
- DAHRENDORF, R. (1964) 'Recent Changes in the Class Structure of European Societies'. Daedalus, Vol 93, Winter.
- DAHRENDORF, R. (1982) On Britain. BBC Publications, London.
- DAMETTE, F. (1980) 'The Regional Framework of Monopoly Exploitation' in J. Carney et al 1980 q.v.
- DAMETTE, F. & PONCET, E. (1980) 'Global Crisis and Regional Crisis' in J. Carney et al, 1980, q.v.
- DAVIS, T. (1974) Capital, State and Sparse Populations. Working Paper No 18, Studies in Regional Policy Implementation, Social and Environmental Planning Unit School of the Environment. PCL, London (mimeo) Sept 1974.

- DAVIS, M. (1979) Beyond Class Images. Groom Helm, London.
- DEANE, P. & COLE, W. (1962) British Economic Growth 1688-1959. CUP, Cambridge.
- DICKSON, T. (ed) (1980) Scottish Capitalism. Lawrence and Wishart, London.
- DOERINGER, D. G. (1973) 'Low Pay, Labour Market Dualism, and Industrial Relations System'. Harvard Institute of Economic Research. Discussion Paper No 271, April 1973.
- DOERINGER, D.G. & PIORE, M.J. (1970) International Labour Markets and Manpower Analysis, D. C. Heath, New York.
- DOUGLAS, J. W. B. et al (1968) All Our Future. Davies, London.
- DOUGLAS, J.W.B. & LOWE, M. (1973) 'Longitudinal Surveys and the Study of Social Mobility'. Social Science Information, Vol 12, No 4.
- DUNCAN-JONES, P. (1972) 'Social Mobility, Economical Scoring, and Occupational Classification', in K Hope (ed) (1972) The Analysis of Social Mobility. OUP Oxford.
- DUNKERLEY, D. (1979) 'Up-grading or Deskillling?' Unpub MSS, Plymouth Polytechnic, Plymouth.
- EDWARDS, R. (1980) Contested Terrain: The Transformation of the Work place in the Twentieth Century. Heinemann, London.
- EDWARDS, R.C., REICH, M. & GORDON, D.M. (eds) (1975) Labour Market Segmentation. D.C. Heath, Lexington.
- EHRENREICH, B. & EHRENREICH, J. (1979) 'The Professional-Managerial Class' in Walker, P. (ed) 1979 q.v.
- ERIKSON, C. (1972) Invisible Immigrants. Weidenfeld & Nicholson, London.
- ERIKSON, R. (1977) 'Trends in Social Mobility in Sweden'. Paper read at ISA Stratification and Mobility Conference, Dublin, April 1977 (xerox).
- ERIKSON, R., GOLDTHORPE, J. & PORTOCARERO, L. (1979) 'Intergenerational Class Mobility in Three Western European Societies'. BJS, Vol XXX, No 4.
- ERIKSON, R., GOLDTHORPE, J. & PORTOCARERO, L. (1981) Social Fluidity in Industrial Nations: England, France and Sweden. Swedish Institute for Social Research, Stockholm (xerox).

- EVANS, M. (1975) Karl Marx. Allen & Unwin, London.
- FELDMAN, A. & MOORE, W.E. (1963) 'Industrialization and Industrialism'. Transactions of the Fifth World Congress Of Sociology, Sept, Washington.
- FIDDLER, J. (1981) The British Business Elite. RKP, London.
- FIRN, J. (1973) 'The Danger From Without' The Scotsman, 30th Oct 1973.
- FIRN, J. (1975) 'External Control and Regional Policy' in G. Brown (ed) (1975) q.v.
- FLOUD, J. & HALSEY, A. (1958) 'The Sociology of Education', Current Sociology, Vol 7, No 3.
- FLOUD, J. & HALSEY, A. (1961) 'Introduction', in A.H. Halsey, J. Floud & L.A. Anderson, Education Economy & Society. Collier-Macmillan, London.
- FORD, G., PAYNE, G., & ROBERTSON, C. (1975) 'Education and Mobility in Scotland: The Institutional Framework of the Schools'. Paper read at SSRC Internal Seminar on Mobility, University of Aberdeen, Sept 1975.
- FOX, T. & MILLER, S. (1966) 'Economic, Political and Social Determinants of Mobility'. Acta Sociologica, Vol 9.
- FRANK, A. (1967) Capitalism and Underdevelopment in Latin America. Monthly Review Press, New York.
- FRANK, A. (1970) Latin America: Underdevelopment or Revolution. Monthly Review Press, New York.
- FRANKEL, M. (1969) Capitalist Society and Modern Sociology Lawrence and Wishart, London.
- FRIEDLANDER, D. & ROSHIER, R. (1966) 'A Study of Internal Migration in England & Wales', Pts I & II. Population Studies, Vol XX, Nos 1 & 2.
- FRIEDMAN, A. (1977) Industry and Labour. Macmillan, London.
- FRÖBEL, F. et al (1980) The New International Division of Labour. CUP, Cambridge.
- FURNESS, K. (1981) 'Workplace, Community, and the 'Crisis' of Clydeside's Political Economy during the First World War'. Paper presented at BSA (Scotland) Conference, Aberdeen, March 1981 xerox.
- GALBRAITH, J.K. (1967) The New Industrial State, Hamish Hamilton, London.

- GALLIE, D. (1978) In Search of the New Working Class. CUP, London.
- GARNSEY, E. (1975) 'Occupational Structure in Industrial Societies'. Sociology, Vol 3, No 3.
- GARNSEY, E. (1978) 'Women's Work & Theories of Class Stratification'. Sociology, Vol 12, No 2.
- GERSHUNY, J. (1978) After Industrial Society? MacMillan, London 1978.
- GERSHUNY, J. (1979) 'The Informal Economy: its Role in the Post-Industrial Society'. Futures Feb 1979.
- GIDDENS, A. (1973) The Class Structures of the Advanced Societies. Hutchinson, London, 1973.
- GIDDENS, A. (1974) 'Elites in the British Class Structure' in Stanworth, P. and Giddens, A., 1974, q.v.
- GIDDENS, A. (1976) The New Rules of Sociological Method. Hutchinson, London.
- GIDDENS, A. & MACKENZIE (eds) (1982) Social Class and the Division of Labour. CUP, London.
- GINSBERG, M. (1929) Interchange between Social Classes . Economic Journal, Vol XXXIX, Dec.
- GIROD, R. et al (1977) 'The Other Road: the role of vocational training in the process of achievement'. Paper presented at the ISA Research Conference on Social Stratification, Dublin, April 1977, (xerox).
- GLASS, D. V. (ed) (1954) Social Mobility in Britain. RKP, London.
- GLASS, D. V. (1969) 'Fertility Trends in Europe since the Second World War', in Behrman, S., Corsa, L., and Freedman, R., (eds) (1969). Fertility and Family Planning. University of Michigan Press, Ann Arbor.
- GLASS, D.V. & GREBENNICK, D. (1954) The Trend and Pattern of Fertility in Britain. Papers of the Royal Commission on Population, Vol 6, HMSO, London.
- GLYNN, S. & OXBORROW, J. (1976) Interwar Britain. Allen & Unwin, London.
- GOLDTHORPE, J. E. (1974) An Introduction to Sociology. (2nd Edn). CUP, Cambridge.
- GOLDTHORPE, J. (1975) 'Occupational Mobility and Class Structure'. Paper read at the SSRC International Seminar on Social Mobility, Aberdeen, Sept 1975 (xerox).

- GOLDTHORPE, J. (1980) Social Mobility and Class Structure in Modern Britain. OUP, Oxford (with C. Llewellyn and C. Payne).
- GOLDTHORPE, J. (1980b) 'Reply to Crompton'. Sociology, Vol 14, No 1, Feb.
- GOLDTHORPE, J. (1981) 'A Reply to Penn'. Sociology, Vol 15 No 2, May.
- GOLDTHORPE, J. (1982) 'On the Service Class', in Giddens, A., & MacKenzie G., (ed) (1982) q.v.
- GOLDTHORPE, J. & LLEWELLYN, C. (1977) 'Class Mobility in Modern Britain', Sociology Vol 11, No 3.
- GOLDTHORPE, J., LLEWELLYN, C. & PAYNE, C. (1977) 'Recent Trends in Occupational Mobility in England and Wales'. Paper read at ISA Conference on Stratification and Mobility, Dublin, April 1977.
- GOLDTHORPE, J., LLEWELLYN, C. & PAYNE, C. (1978) 'Trends in Class Mobility'. Sociology, Vol 12, No 3.
- GOLDTHORPE, J. et al (1968) The Affluent Worker: Political Attitudes and Behaviour.
- GOODMAN, L. (1969) On Partitioning X^2 and Detecting Partial Association in Three-Way Contingency Tables Journal of Royal Statistical Society, Vol B31.
- GRAY, J., MACPHERSON, A. & RAFFE, D. (1982) Reconstructions of Secondary Education. RKP, London.
- GUTMAN, H. G. (1977) Work, Culture and Society in Industrializing America. Basil Blackwell, Oxford.
- HAKIM, C. (1979) Occupational Segregation. Dept of Employment Research Paper No 9, D of E, London.
- HALMOS, P. (ed) (1964) The Development of Industrial Societies. Sociological Review Monograph No 8, University of Keele.
- HALSEY, A. H. (ed) (1972) Trends in British Society Since 1900. Macmillan; London.
- HALSEY, A. H. (1982) 'Provincials and Professionals'. Archives Europeennes de Sociologie. Vol 23, No 1.
- HALSEY, A. H. et al (1980) Origins and Destinations, OUP, Oxford.
- HANHAM, H. J. (1969) Scottish Nationalism. Faber, London.
- HARGRAVE, A. (1971) 'Economy and Industry' in Glen, D., (ed) Whither Scotland. Gollancz, London.

- HARRIS, A. L. (1939) 'Pure Capitalism and the Disappearance of the Middle Class'. Journal of Political Economy, Vol XVII.
- HARRIS, A. & CLAUSEN, R. (1966) Labour Mobility in Great Britain, 1953-63. Government Social Survey, HMSO.
- HARVIE, C. (1977) Scotland and Nationalism. Allen & Unwin, London.
- HAUSER, R. (1978) 'A Structural Model of the Mobility Table'. Social Forces, Vo 56, No 3.
- HAUSER, R. et al (1975a) 'Temporal Change in Occupational Mobility' ASR Vol 40 (June) 1975.
- HAUSER, R. et al (1975b) 'Structural Change in Occupational Mobility Among Men in the U.S.' ASR Vol 40 (Oct) 1975.
- HAWLEY, A. (1978) 'Spatial Aspects of Population: An Overview', in Taeuber, K.E., Burnpass L.L., & Sweet J.A., (eds) Social Demography (1978) Academic Press, New York.
- HAWTHORN, G. (1970) The Sociology of Fertility, Collier-Macmillan, London.
- HEATH, A. (1981) Social Mobility, Fontana, London.
- HEATH, A. & RIDGE, J. (1983) 'Men and Women in the Labour Market'. Paper read at BSA Conference, Cardiff, April 1983.
- HECHTER, M. (1975) Internal Colonialism RKP, London.
- HEYWORTH REPORT (1965) Report of the Committee on Social Studies. HMSO, London.
- HIDB (1967) First Annual Report. Highlands and Islands Development Board, Inverness HIDB.
- HIGHET, J. (1960) The Scottish Churches. Skeffington, London.
- HILL, C. (1969) The Century of Revolution: 1603-1713. Sphere, London.
- HINDESS, B. (1981) 'The Politics of Social Mobility', Economy and Society Vol 10, No 2.
- HMSO (1921) Census of Scotland 1921. Occupations and Industries Report, Edinburgh.
- HMSO (1931) " " " "
- (1951) " " " "
- (1961) " " " "
- (1971) Census GB, Economic Activity Tables Pt IV. HMSO, London.

- HMSO (1951a) Census Scotland 1951. General Vol III,
HMSO, Edinburgh.
- HMSO (1966) Gazatteer of Place Names, Sample Census,
HMSO, Edinburgh.
- HMSO (1967) Scottish Administration. (Rev Edn), HMSO
Edinburgh 1967.
- HMSO (1968) Census 1961, Great Britain. General Report.
HMSO, London, 1968.
- HMSO (1968b) Standard Industrial Classification, HMSO,
London.
- HMSO (1971a) Census Great Britain 1971, General Report,
Vol 1, HMSO London 1971.
- HMSO (1971b) The Classification of Occupations, 1970
HMSO, London, 1971.
- HMSO (1971c) British Labour Statistics Historical Abstract
1886-1968, Department of Employment, London.
- HMSO (1975) Statistics of Education, Vol 6 - Universities
Department of Education & Science, London.
- HMSO (1980) People in Britain. OPCS/GRO, London.
- HOBSBAWM, E. (1977) 'Some Reflections on 'The Break-up of Britain'
in New Left Review, No 105.
- HOBSBAWM, E. (1969) Industry and Empire, Penguin, Harmondsworth,
1969.
- HODGES, D. C. (1961) 'The 'Intermediate Classes' in Marxist
Theory'. Social Research, Vol 28.
- HOLLAND, S. (1976) Capital Versus the Regions. MacMillan, London.
- HOLLINGSHEAD, A. B. (1952) 'Trends in Social Stratification'. ASR,
Vol 17.
- HOLT, R. T. & TURNER,
J. E. (eds) (1970) The Methodology of Comparative Research
Free Press, Glrncoe.
- HOPE, K. (ed) (1972) Analysis of Social Mobility: methods and
approaches. Clarendon, Oxford.
- HOPE, K. & GOLDTHORPE J.
(1972) 'Occupational Gradings and Occupational
Prestige' in Hope, K. (1972).
- HOPE, K. (1975) 'Trends in the openness of British Society
in the Present Century'. Paper circulated
at the SSRC International Seminar on Social
Mobility, Aberdeen, Sept 1975 (xerox).

- HOPE, K. (1980) Vertical or Class Mobility? unpub ms, Nuffield College, Oxford.
- HOPE, K. & GOLDTHORPE, J. (1974) The Social Grading of Occupations. O.U.P. Oxford.
- HOSELITZ, B. (1954) 'Social Stratification and Economic Development', International Social Science Journal Vol 16, No 2.
- HOUSE, J. W. (ed) (1977) The U.K. Space (2nd Edn) Weidenfeld and Nicholson, London.
- HUMPHRYS, G. (1977) 'Power and the Industrial Structure' in House, J.W. (ed) (1977).
- HUNT, A. (ed) (1977) Class and Class Structure, Lawrence and Wishart, London.
- HUNTER, J. (1976) The Making of the Crofting Community John Donald, Edinburgh.
- INKELES, A. (1960) 'Industrial Man: the relation of status to experience, perception, and value'. AJS Vol 66 (July)
- JACKSON, F. T. (1968) The Enterprising Scot, Edinburgh University Press, Edinburgh.
- JAIN, H. & SLOANE, P. (1977) 'The disadvantaged in the labour market in the context of North America and selected European Countries' Research & Working Paper Series No 128. Hamilton, Ontario. McMaster University, Faculty of Business, March 1977.
- JENCKS, C.V. (et al) (1972) Inequality. New York, Basic Books.
- JOHNSON, T. (et al) (1971) The Structure and Growth of the Scottish Economy. Collins, London.
- JOHNSON, T. (1977) 'What is to be known?' Economy and Society, Vol 7.
- JOHNSON, T. & RATTANSI, A. (1981) 'Social Mobility Without Class', Economy and Society, Vol 10, No 2.
- JONES, B. (1982) 'Destruction or redistribution of engineering skills?' in Wood, S. (ed) (1982) q.v.
- JONES, T. (1977) 'Occupational Transition in Advanced Industrial Societies - A Reply' Sociological Review, Vol 25 No 2
- KAELBLE, H. (1981) Historical Research on Social Mobility. (Trans, Noakes, F.) Croom Helm, London.

- KATOUZIAN, M.A. (1970) 'The Development of the Service Sectors' Oxford Economic Papers, No 22, (Nov)
- KANGMAN, R. L. (et al) (1981) 'Defrocking Dualism' Social Science Research Vol 10 No 1.
- KAY, G. (1979) The Economic Theory of the Working Class Macmillan, London.
- KELLAS, J. (1968) Modern Scotland, Pall Mall, London.
- KELLY, A. (1976) Family Background, Subject Specialization and Occupational Recruitment of Scottish University Students. Centre for Educational Sociology, Edinburgh (xerox).
- KENDRICK, S., McCRONE, D. & BECHHOFFER, F. (1982a) Education and Social Mobility Working Paper No 3, Social Structure of Modern Scotland Project, University of Edinburgh (xerox).
- KENDRICK, S., McCRONE, D. & BECHHOFFER, F. (1982b) Industrial and Occupational Structure Working Paper No 2, Social Structure of Modern Scotland Project University of Edinburgh (xerox).
- KENDRICK, S., BECHHOFFER, F. & McCRONE, D. (1983) 'Scotland is British' Paper read at B.S.A. Conference, Cardiff, April (xerox).
- KERR, A. J. C. (1962) Schools of Scotland, MacLellan, Glasgow.
- KERR, C. (et al) (1973) Industrialism and Industrial Man (2nd Edn) Penguin, Harmondsworth.
- KING, R. (et al) (1981) The Middle Class, Longmans, London.
- KINGSLEY, S. & McEWEN, J. (1978) 'Social Classes for Women of Marital Status' Journal of Bio-Social Science, Vol 10, No 4.
- KISH, L. (1965) Survey Sampling, Wiley, New York.
- KOLABINSKA, M. (1912) La circulation des elites en France Lausanne (referred to in Sorokin 1927, q.v.)
- KRECKEL, R. (1973) 'Towards a theoretical re-orientation of the sociological analysis of vertical mobility' in W. Müller and K. Mayer, (eds) (1973) Social Stratification and Career Mobility. The Hague, Mouton.
- KRECKEL, R. (1980) 'Unequal Opportunity Structure and labour market segmentation' Sociology, Vol 14.
- KUKLINSKI, A. (1966) Criteria for Location of Industrial Plant. Economic Commission for Europe, Brussels (mimeo).

- KUMAR, K. (1974) 'The Industrializing and the 'Post-Industrial' Worlds' in de Kadt, T., and Williams G., (ed) (1974) Sociology and Development. Tavistock, London.
- KUMAR, K. (1976) 'Industrialism and Post-industrialism Reflections on a Putative Transition' Sociological Review, Vol 24, No 3.
- KUUSINEN O.V. (et al) (1959) Fundamentals of Marxism-Leninism. N.Y. Crowell-Collier & MacMillan.
- KUZNETS, S. (1957) 'Quantative Aspects of the Economic Growth of Nations' Economic Development and Cultural Change, Vol 5, Supplement No 4 (July).
- KUZNETS, S. (1966) Modern Economic Growth. Yale University Press, New Haven.
- LEBAS, E. (1974) Sociology of Regional Planning and Policy, Working Paper No 14. Studies in Regional Policy Implementation, Dept of Social & Environmental Planning PCL, London, (memo) (July 1974)
- LEE, C. H. (1979) British Regional Employment Statistics 1841-1971. CUP, Cambridge.
- LEE, D. (1981) 'Skill, Craft and Class'. Sociology, Vol 15, No 1.
- LEE, G. (1981) Who Gets to the Top? Gower, Aldershot.
- LENMAN, B. (1977) An Economic History of Modern Scotland. Batsford, London 1977.
- LENSKI, G. E. (1958) 'Trends in later Generational Occupational Mobility in the United States', ASR Vol 23
- LENSKI, G. (1966) Power and Privilege. McGraw-Hill, N.Y.
- LENSKI, G. (1970) Human Societies. McGraw-Hill, New York
- LESER, C.E.V. & SILVEY H. (1950) 'Scottish Industries During the Inter-War Period'. The Manchester School of Economic and Social Studies, Vol XVIII, May.
- LIPIETZ, A. (1980) 'The Structuration of Space, the Problem of Land, and Spatial Policy' in J. Carney et al, 1980 q.v.
- LIPSET, S. M. (1960) Political Man. Heinemann, London.
- LIPSET, S. M. & BENDIX, R. (1959/1964) Social Mobility in Industrial Society. Berkeley, University of California Press.
- LITTLE, A. & WESTERGAARD, J. (1964) 'The Trends of Class Differentials in Education Opportunity in England and Wales' BJS Vol 15, 1964.
- LITWAK, E. (1960a) 'Occupational Mobility and Extended Family Cohesion' ASR, Vol 25, No 1.

- LITWAK, E. (1960b) 'Geographical Mobility and Extended Family Cohesion'. ASR, Vol 25 No 2.
- LOCKWOOD, D. (1958) The Black Coated Worker. Allen & Unwin, London.
- LOVERIDGE, R. & MOK, A. (1979) Theories of Labour Market Segmentation. Martinus Nijhoff, The Hague.
- LOWIE, R. (1948) Social Organization. Holt, Rinehart & Winston, New York.
- LYTHE, S. (1960) The Economy of Scotland in its European Setting 1550-1625. Oliver & Boyd, Edinburgh.
- MACK, R.W; L. FREEMAN & S. YELLIN, S. (1957) Social Mobility: Thirty Years of Research and Theory. Syracuse, Syracuse University Press.
- MANDEL, E. (1975) Late Capitalism. New Left Books, London.
- MANN, M. (1973) Workers on the Move. CUP, London.
- MARGLIN, S. (1974) 'What do Bosses Do? - the origins and functions of hierarchy in capitalist production'. Review of Radical Political Economics Vol 6.
- MARCH, D. (1965) The Changing Social Structure of England and Wales 1871-1961 (2nd Edn) RKP, London 1965.
- MARSHALL, T. H. (1965) Class, Citizenship and Social Development. Doubleday Anchor, Garden City, New York 1965.
- MARTIN, R. & FRYER, R. H. (1973) Redundancy and Paternalistic Capitalism. Allen & Unwin, London.
- MARX, K. (1969) Theories of Surplus Value. Lawrence and Wishart, London.
- MARX, K. (1959a) Capital Vol 1. Moscow, Foreign Languages Publishing House.
- MARX, K. (1959b) Capital Vol III. Lawrence and Wishart, London.
- MARX, K. & ENGELS, F. (1962) Selected Works, Vol 1 Lawrence and Wishart, London.
- MASSEY, D. (1978) 'Survey: Regionalism: Some Current Issues' Capital and Class Vol 6 Autumn
- MAXWELL, J. (1969) Sixteen Years On. University of London Press, London.

- MEWETT, P. G. (1979) 'The Emergence and Persistence of Peripheral Areas in Relationship to the Process of Development and Underdevelopment' in J.W. Sewel (ed) (1979) The Promise and the Reality - Large Scale Developments in Marginal Regions ISSPA, Aberdeen.
- MILIBAND, R. (1969) The State in Capitalist Society. Weidenfeld & Nicholson London 1969.
- MILLER, S. M. (1960) 'Comparative Social Mobility' Current Sociology, Vol 9 1960.
- MILLER, R. (1975) 'Geographic and Occupational Mobility in Northern Ireland' Paper read at SSRC International Seminar on Social Mobility, Aberdeen, Sept. 1975.
- MILLS, C. W. (1951) White Collar. OUP, London.
- MILLS, C. W. (1963) 'A Marx for the Managers' in H. Rowitz, I.L., (ed) 1963 Power, Politics and People OUP, London.
- MINISTRY OF HEALTH (1956) Matters of Life and Death. Pt ii (1955). GRO, London.
- MITCHELL, B. & JONES, H. (1971) Second Abstract of British Historical Statistics, CUP, Cambridge 1971.
- MOK, A. (1979) 'Is there a dual labour market in the Netherlands?' (1975) (Is er een dubbele arbeidsmarkt in Nederland?) reproduced in translation from the Dutch as part of Loveridge & Mok (q.v.) pp123-129.
- MONK, D. (1970) Social Grading on the National Readership Survey, Joint Industry Committee for National Readership Surveys, London.
- MOORE, R. (1977) 'Migrants and the Class Structure of Western Europe' in R. Scase (ed) (1977) Industrial Society: Class, Cleavage and Control Allen & Unwin, London.
- MOORE, R. & PAYNE, G. (1978) Final Report of the Scottish Mobility Study SSRC Grant No HR/2173 (mimeo) Aberdeen, available from SSRC.
- MOORE, W. E. (1974) Social Change Prentice Hall, Englewood Cliffs (1963, 1974).
- MORTON, J. (1975) 'Two Scotlands' New Society, 10th April 1975.
- MYRDAL, G. (1957) Economic Theory and Underdeveloped Regions. Duckworth, London.

- MACDONALD K. (1974) 'The Hall-Jones Scale' in Ridge (1974) q.v.
- MACKAY D. I. (et al) (1971) Labour Markets Under Different Employment Conditions Allen & Unwin, London.
- MACKAY, G. (1973) 'Scotland' in Broady, M, (ed) Marginal Regions: essays in Social Planning. Bedford Square Press, London.
- MACKENZIE, G. (1976) 'Class and Class Consciousness' Marxism Today, March.
- MACKENZIE, G. (1982) 'Class Boundaries and the Labour Process' in Giddens, A., & Mackenzie, G., (eds) (1982) Social Class and the Division of Labour. CUP, Cambridge.
- MACPHERSON, A. (1958) Eleven Year Olds Grow Up. University of London Press, London.
- McCRONE, G. (1965) Scotland's Economic Progress 1951-1960. Allen & Unwin, London.
- McEWAN, J. (1975) 'Highland Landlordism' in Brown, G., (ed) 1975 q.v.
- McLELLAN, D. (1973) Marx's Grundrisse. Paladin, London.
- NAIRN, T. (1977) The Break-Up of Britain. New Left Books, London.
- NEWBY, H., & BELL, C. (1979) 'From Epistemology to Methods' BSA/SSRC Conference on Methodology and Techniques of Sociology, Lancaster University, January 1979.
- NICHOLAS, A. (1978) Sociologists in Polytechnics. SIP Occasional Papers, No 1, Hatfield 1978.
- NICHOLS, T. (1969) Ownership, Control and Ideology. Allen & Unwin, London 1969.
- NICOLAUS, M. (1967) 'Proletariat and middle class in Marx' Studies on the Left, Vol 17.
- NOBLE, T. (1972) 'Social Mobility and Class Relations in Britain' British Journal of Sociology Vol 23, 1972.
- NOBLE, T. (1974) 'Intergenerational Mobility in Britain' Sociology, Vol 8 No 4.
- NOBLE, T. (1975a) 'Prolegomena to a Study of Social Mobility and Theories of Social Stratification'. Paper read at the SSRC International Seminar on Social Mobility, Aberdeen, Sept 1975 (mimeo)

- NOBLE, T. (1975b) Modern Britain Batsford, London.
- NOBLE, T. (1981) 'Review of Goldthorpe (1980)' BJS, Vol 32 No 1.
- OLDMAN, D. & ILLSLEY, R. (1966) 'Measuring the Status of Occupations' in Sociological Review, Vol 14 No 1.
- OFFE, C. (1976) Industry and Inequality. Ed Arnold, London.
- OSBORNE, G. G. (1966) Scottish and English Schools, Longmans 1966.
- OSIPOV, G. B. (1969) 'The Class Character of the Theory of Social Mobility' in P. Hollander (ed) 1969 American and Soviet Society Englewood Cliffs, Prentice Hall.
- PAGE, E. (1978) Michael Hechter's Internal Colonialism Thesis: some Theoretical and Methodological Problems European Journal of Political Research Vol 6.
- PAHL, R. & WINKLER, J. (1974) 'The Economic Elite' in Stanworth, P., and Giddens, A. 1974, q.v.
- PARKER, J. & ROLLET, C. & JONES, K. (1972) 'Health' in Halsey (A) (ed) (1972) Trends in British Society Since 1900 Macmillan, London.
- PARKER, S. R. (et al) (1971) The Effects of the Redundancy Payments Act. HMSO, London.
- PARKER, S. (et al) (1977) The Sociology of Industry (3rd Edn) Allen & Unwin, London.
- PARKIN, F. (1971) Class Inequality and Political Order. MacGibbon & Kee, London.
- PARKIN, F. (1979) Marxism and Class Theory. Tavistock, London.
- PARRY, N. & PARRY, J. (1977) 'Social Control and Collective Social Mobility' in R. Scase ed, 1977, q.v.
- PARSLER, R. (ed) (1980) Capitalism, Class and Politics in Scotland. Gower, Farnborough.
- PATON, M. J. (1968) The Claim of Scotland. Allen & Unwin, London.
- PAYNE, G. (1973a) 'Comparative Sociology: Some Problems of Theory and Method' BJS, Vol 24 No 1
- PAYNE, G. (1973b) 'Typologies of Middle Class Mobility' Sociology, Vol 7 No 3

- PAYNE, G. (1977a) 'Occupation Transition in Advanced Industrial Societies' in Sociological Review, Vol 25 No 1.
- PAYNE, G. (1977b) 'Understanding Occupational Transition' in Sociological Review, Vol 25 No 2.
- PAYNE, G. & FORD, G. & ROBERTSON, C. (1975) 'Social Mobility in a Scottish Context' Paper at SSRC International Seminar on Occupational Mobility, Aberdeen, Sept 1975.
- PAYNE, G. & FORD, G. & ROBERTSON, C. (1976) 'Changes in Occupational Mobility in Scotland' in Scottish Journal of Sociology, Vol 1 No 1.
- PAYNE, G. & FORD, G. & ROBERTSON, C. (1977a) 'A Reappraisal of "Social Mobility in Britain"', Sociology, Vol 11 No 2.
- PAYNE, G. & FORD, G. (1977) 'Social Mobility in the Upper Echelons' BSA Conference Sheffield, March 1977.
- PAYNE, G. & FORD, G. (1977) 'The Lieutenant Class' in New Society, Vol 41 No 772
- PAYNE, G. & FORD, G. (1977) 'Occupational Mobility and Educational Process in Scotland' Paper presented to ISA Research Conference on Social Stratification, Dublin, April 1977.
- PAYNE, G. (et al) (1980) 'Occupational Change and Social Mobility in Scotland since the First World War' in Gaskin, M., (ed) The Political Economy of Tolerable Survival, Croom Helm, London.
- PAYNE G. (et al) (1981) Sociology and Social Research. RKP London.
- PAYNE, G. (et al) (1983a) 'Trends in Female Social Mobility' in Gamarnikow, E., et al (eds) Gender, Class and Work. Heinemann, London.
- PAYNE, G. (et al) (1983b) 'Employment and Mobility in Peripheral Regions'. Paper read at BSA Conference, Cardiff, April 1983 (xerox).
- PELLING, H. (1963) A History of British Trade Unionism. Penguin, Harmondsworth.
- PENN, R. (1981) 'The Nuffield Class Categorization' Sociology, Vol 15 No 2.
- PENN, R. (1982a) 'Skilled manual workers in the labour process, 1856-1964' in Wood, S., (ed) 1982, q.v.

- PENN, R. (1982b) 'Theories of Skill and Class Structure' Sociological Review, Vol 3 No 1.
- PERLO, V. (1957) The Empire of High Finance New York International Publishers.
- PERROUX, F. (1955) 'La Notion de Pole de croissance' in Economie Appliquee, nos 1 and 2.
- PIORE, M. J. (1973a) 'The Role of Immigration in Economic Growth' MIT Working Paper No 112a, (May).
- PIORE, M. J. (1973b) 'On the Technological Foundations of Economic Dualism' MIT Working Paper No 110 (May).
- PIORE, M. J. (1975) 'Notes for a theory of labour market stratification' in Edwards, R.C. et al 1975, q.v.
- PIZZORNO, A. (1966) 'Amoral Familism and Historical Marginality' International Review of Community Development, Vol 15.
- PLATT, J. (1964) 'Comment on "Social Stratification in Industrial Society" in Halmos, P. (ed) 1964 q.v.
- POLLARD, G. (1972) The Development of the British Economy 1914-67 (2nd Edn) Ed Arnold, London.
- POSTAN, M. (1967) An Economic History of Western Europe Methuen, London.
- POULANTZAS, N. (1973) Political Power and Social Classes. New Left Books, London.
- POULANTZAS, N. (1975) Classes in Contemporary Capitalism. New Left Books, London.
- PRANDY, K. (et al) (1982) White-Collar Worker. Macmillan, London.
- PRYOR, R. J. (1974) 'Migration and the Process of Modernization' in Kosinski, L.A., and Prothers R.M., People on the Move Methuen, London 1974.
- RAFFE, D. (1981) 'Education, the Tightening Bond, and Social Mobility'. BSA Conference, Aberystwyth, April,
- RALLINGS, C. & LEE, A. N. (1980) 'Imperfect Nationalization: The Case of Cornwall' in Unwin, D. (ed) (1980) Economy, Territory and Identity, Sage, London.
- RAYNOR, J. (1969) The Middle Class. Longmans, London

- REID, I. (1977) Social Class Difference in Britain. Open Books, London (1st Edn).
- REID, I. (1978) Sociological Perspectives on School and Education. Open Books, London.
- REISS, A. J. (1961) Occupations and Social Status. Free Press, Glencoe.
- REX, J. (1974) 'Capitalism, Elites. and the Ruling Class' in Stanworth and Giddens, q.v.
- REYNOLDS, L. G. (1951) The Structure of Labour Markets, Harper N.Y.
- RICHARDSON, C. J. (1977) Contemporary Social Mobility. London. Frances Pinter.
- RICHARDSON, H.W. (1969) Regional Economics. Weidenfeld & Nicholson, London.
- RICHMOND, A. (1969) 'Migration in Industrial Societies' in Jackson, J.A., Migration. CUP, Cambridge.
- RIDGE, J. (1974) Mobility in Britain Reconsidered. OUP, Oxon.
- RIDGE, J. (1974a) 'Sibling Rivalry' in Ridge J., (ed) (1974) Mobility in Britain Reconsidered OUP Oxford 1974.
- RIDGE, J. (1974b) 'Fathers and Sons' in Ridge, J., (ed) (1974) Mobility in Britain Reconsidered OUP, London.
- RIDGE, J. & McDONALD, K. 'Social Mobility' in A. Halsey (ed) Trends in British Society since 1900. Macmillan, London.
- ROBERTS, K. (1978) The Working Class. Longmans, London.
- ROBINSON, D. (ed) (1970) Local Labour Markets and Wage Structures. Gower Press, London.
- ROBINSON, R. & KELLEY, J. (1979) 'Class as conceived by Marx and Dahrendorf' ASR, Vol 44 No 3.
- ROGERS, N. (1978) 'An Enquiry into the political economy of combined and uneven development and its significance for regional analysis' Papers in Urban & Regional Studies No 2 CURS (xerox), Birmingham.
- ROGOFF, N. (1951) 'Recent trends in Urban Occupational Mobility' in P.K. Hatt and A.J. Reiss, Jnr, (eds) (1975) Cities and Society 1st Edn, Free Press, Glencoe.

- ROLLETT, C. & PARKER, J. (1972) 'Population and Family' in Halsey, A.H. (ed) 1972 q.v.
- ROSSER, C. & HARRIS, C. (1965) The Family and Social Change. RKP, London.
- ROSTOW, W. (1960) The Stages of Economic Growth. CUP, London.
- ROTHWELL, R. & ZWEVELD, W. (1979) Technical Change and Employment. Frances Pinter, London.
- ROUTH, G. (1965) Occupations and Pay in Great Britain 1906-60. CUP, Cambridge.
- ROUTH, G. (1980) Occupation and Pay in Great Britain (second edition) Macmillan, London.
- RUNCIMAN, W. G. (1966) Relative Deprivation and Social Justice, RKP, London.
- SALAMAN, G. (1979) Work Organisations: resistance and control. Longman, London.
- SAYLES, L. R. (1958) Behaviour of Industrial Work Groups. N.Y., Wiley.
- SCASE, R. (1976) 'A Review of 'Class in a Capitalist Society'', Sociology, Vol 10 No 3.
- SCOTLAND, J. (1969) The History of Scottish Education. ULP, London, Vols 1 and 11.
- SCOTT, J. (1979) Corporations, Classes and Capitalism. Hutchinson, London.
- SCOTT, J. & HUGHES, M. (1975) 'Ownership and Control in a Satellite Economy' Sociology, Vol 10 No 1.
- SCOTT, J. & MACKENZIE, J. (1980a) 'Patterns of Ownership in Top Scottish Companies' in Parsler, R., 1980 q.v.
- SCOTT, J. & HUGHES, M. (1980b) The Anatomy of Scottish Capitalism. Croom Helm, London.
- SEERS, D; SCHAFFER, B. & KILJUNEN, M.L. (eds) (1979) Underdeveloped Europe: Studies in Core-Periphery Relation. Harvester Press, Hassocks, Sussex.
- SEIGEL, P.M. (1971) Prestige in the American Occupational Structure. (Unpub PhD thesis) University of Chicago, Chicago.
- SENSINI, G. (1913) 'Teoria dell' equilibrio di composizione delle classi sociali' Rivista Italiana di Sociologia, Sept/Oct 1913.

- SEWELL, W.H; HALLER, A.D., & PORTES, A. (1969) 'The Educational and Early Occupational Attainment Process' ASR 34, Vol 1, Feb.
- SHARF, B. (1977) 'Sexual Stratification and Social Stratification' British Journal of Sociology. Vol 28 No 4.
- SILVEY, J. (1975) Deciphering Data. Longmans, London.
- SINGER, P. (1971) 'Forca de Trabalho e Empregs no Brasil 1920-1969' Centro Brasileiro de Analise e Planejamento, Vol 7, Sao Paulo.
- SJOBERG, G. (1951) 'Are Social Classes in America Becoming more Rigid?' ASR Vol 16.
- SLAVEN, A. (1975) The Development of the West of Scotland, 1750-1960. RKP London.
- SMITH, C. S. (1973) 'The Employment of Sociologists in Research Occupations in Britain in 1973' Sociology, Vol 9.
- SMITH, K. B. (1981) 'Class Structure and Intergenerational Mobility from a Marxian Perspective' Sociology Quarterly Vol 22, Summer.
- SMOUT, C. (1963) Scottish Trade on the Eve of Union, 1660-1707. Oliver and Boyd, Edinburgh.
- SOMBART, W. (1906) Warum gibt es in den Vereingten Staaten Keinen Socialismus? J.C.B. Motir, Tubingen.
- SOROKIN, P. (1927) Social Mobility. N.Y., Harper.
- SSRC (1970) Nuffield College Mobility Study Grant Application. SSRC, London.
- SSRC (1972) Aberdeen University Mobility Study Grant Application. Grant No HR/2173 SSRC, London.
- STACEY, B. (1967) 'Some Psychological Consequences of Inter-generational Mobility' Human Relations Vol 20.
- STANWORTH, P. & GIDDEN, A. (eds) (1974) Elites and Power in British Society. CUP, London.
- STEEDMAN, J. (1980) Progress in Secondary Schools. National Children's Bureau, London.
- STEVENSON, J. (1977) Social Conditions in Britain Between the Wars. Penguin, Harmondsworth.

- STEWART, A. (et al) (1973) 'Measuring the Class Structure' Nature, Vol 245 (Oct 26)
- STEWART, A. (et al) (1980) Social Stratification and Occupations. MacMillan, London
- STRAUSS, A. L. (1971) The Contexts of Social Mobility. Chicago, Aldine.
- SVALASTOGA, K. (1965) 'Social Mobility, The Western European Model' Acta Sociologica Vol 9.
- SWANSON, G. (1971) Social Change, Scott, Foresman, Glenview Ill
- TARROW, S. (1977) Between Centre and Periphery. Yale University Press, New Haven.
- THOMAS, B. (1973) Migration and Economic Growth (2nd Edn) CUP, Cambridge.
- THOMPSON, G. P. (1968) The Making of the English Working Class. Penguin, Harmondsworth.
- TIRYAKIAN, E. (1958) 'The Prestige Evaluation of Occupations in an Underdeveloped Country' AJS Vol 63.
- TOOTHILL (1961) Toothill Report (Inquiry into the Scottish Economy) Scottish Council, HMSO Edinburgh.
- TOURAINÉ, A. (1974) The Post Industrial Society. Random House, New York.
- TOUTAIN, J. C. (1963) 'La Population de la France de 1700 a 1959' Cahiers de l'Institut de Science Economique Appliquee, Supplement No 133 (Jan)
- TRIEMAN, D. (1970) 'Industrialization and Social Stratification' Sociological Inquiry Vol 40 (Spring).
- TREIMANN, D. J. (1975) 'Problems of Concept and Measurement in the Comparative Study of Occupational Mobility' Social Science Research, Vol 14.
- TURNER, R. (1960) 'Sponsored and Contest Mobility and the School System' ASR Vol 25.
- TYLER, W. (1977) Sociology of Educational Inequality. Methuen London.
- TYREE, A. (1973) 'Mobility Rates and Association in Mobility Tables' Population Studies Vol 27.

- UHLBERG, P. (1973) 'Non-Economic Determinants of Non-Migrant' Rural Sociology Vol 38, No 3.
- ULAS, M. (1983) 'Trends in Education, Class and Mobility: the Experience of Scottish Males 1925-1975'. Unpub M. Phil thesis, Plymouth Polytechnic.
- URRY, J. (1973) 'Towards a Structural Theory of the Middle Class' Acta Sociologica, Vol 16.
- URRY, J. & WAKEFORD, J. (1973) Power in Britain. Heinemann, London.
- VAN HECK, F. (1956) 'Some Introductory Remarks on Social Mobility and Class Structure' in Transactions of the Third World Congress of Sociology. ISA, London.
- WADE, N. A. (1939) Post-Primary Education in the Primary Schools of Scotland. University of London Press, London.
- WALKER, P. (ed) (1979) Between Labour and Class. Monthly Review Press, N.Y.
- WALLERSTEIN, (1974) The Modern World System. Academic Press, London.
- WALLERSTEIN (1978) The Capitalist World Economy. CUP, London.
- WATSON, W. (1964) 'Social Mobility and Social Class in Industrial Communities' in Gluckman, M. (ed) Closed Systems and Open Minds. Oliver & Boyd, Edinburgh.
- WEDDERBURN, D. & CRAIG, C. (1974) 'Relative Deprivation at Work' in Wedderburn, D. (ed) Poverty, Inequality and Class Structure. CUP Cambridge.
- WEINBURG, I. (1969) 'The Problem of the Convergence of Industrial Societies' Comparative Studies in Society and History. Vol 11, No 1.
- WESOLOWSKI, W. (1979) Classes, Strata and Power. RKP London.
- WESTERGAARD, J. & RESLER, H. (1977) Class in a Capitalist Society. Penguin, Harmondsworth.
- WILENSKY, H. L. (1969) 'Work, Careers and Social Integration' in T. Burns (ed) (1969), Industrial Man. Penguin, Harmondsworth.
- WILLIAMS, W. (ed) (1974) Occupational Choice. Allen & Unwin, London.

- WILLIS, P. (1977) Learning to Labour. Saxon House, Farnborough.
- WINCH, R. F. (1971) The Modern Family (3rd Edn) Holt Rinehart & Winston, New York.
- WINCH, R. F. & GOODMAN, L.W. (1968) Selected Studies in Marriage and the Family. Holt Rinehart & Winston New York.
- WOOD, S. (ed) (1982) The Degradation of Work? Hutchinson, London.
- WOODWARD, J. (1965) Industrial Organisation. OUP, London.
- WOODWARD, V. (1975) Occupational Trends in Great Britain 1961-1981. Dept of Employment Paper GPP 420, DOE, London (June) (xerox).
- WORSLEY, P. (1974) 'The State of Theory and the Status of Theory' Sociology, Vol 8 No 1.
- WORSLEY, P. (et al) (1977) Introducing Sociology (2nd Edn) Penguin, Harmondsworth.
- WRIGHT, E. O. (1976) 'Class Boundaries in Advanced Capitalist Societies' New Left Review Vol 98.
- WRIGHT, E. O. (1978) Class, Crisis and the State. New Left Books. London.
- YOUNG, M. & WILLMOTT, P. (1956) 'Social Grading by Manual Workers' BJS, Vol 7 No 4.

