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MALE OCCUPATIONAL AND SOCIAL MOBILITY IN SCOTLAND SINCE THE FIRST

WORLD WAR

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

ABSTRACT

'Social' or 'class' mobility is in practice normally occupational mobility. The occupational dimension, however, has to date received relatively little attention. The thesis explores how occupations and occupational mobility have been treated in three bodies of work: social mobility studies, sociological theories drawing on Marx, and sociological theories of industrial or post-industrial society. This discussion provides a wider context by means of which to understand occupational mobility, while also suggesting new areas in which mobility analysis can throw light on current debates.

Scotland is then taken as a case study. A brief economic history and a more detailed account of occupational transition since the First World War lay the groundwork for an investigation of mobility per se. Earlier accounts of mobility - particularly that of Glass - are shown to be inadequate.

Detailed examination of mobility rates using data from the 1975 Scottish Mobility Study involves four main considerations. First, the main patterns are identified, revealing higher rates of intergenerational movement and more 'long-range' mobility than previously expected. The upper middle class in particular displays high levels of inflow and outflow. Second, changing trends in early career mobility over the past 40 years are presented: the trends indicate considerable variation between industrial sectors, and the more recent levelling-off of upward mobility is shown to result largely from the growing dominance of certain service industries in the creation of non-manual employment.

The third area of investigation is the relationship between education and mobility. The generally low level of qualified manpower and the rapid growth of non-manual employment are used to explain the poor association between academic achievement and first occupation until the 1960s. This relates to the final question of career mobility, which is shown to follow the broad pattern of first job mobility. An exploration of ideas about deskilling and labour markets in terms of mobility rates illustrates how an occupational emphasis establishes wider links to sociological theory than one limited to 'social' mobility. The thesis includes two appendices, one dealing with the occupational class schema used in the study, and the other describing the methodology.

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

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

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from it should be acknowledged.

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DECLARATION

The data analysed in Chapters 7 to 10 inclusive were originally collected as part of the Scottish Mobility Study under the direction of the author. Except where indicated in the text, all tables, figures and calculations have been carried out by the author (at times with the assistance of Computer Services staff). All interpretations and theoretical content are again the author's personal work, except where attributed. The acknowledgements and the latter part of Appendix II provide a further indication of the extent to which this thesis is the individual work of the author.

None of the material contained in this thesis has been submitted for a degree in this or any other University.

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'The model of Organization Man, which I concede to be the vanguard model of mid-century ... may, like our cars, be far from the model of the eighties' (Wilensky, 1969, 133).

Mick Carter appointed me as Director of the Scottish Mobility Study, (which furnished the data used in the thesis), and had the strength of character to let me go my own way and yet to back me up when the going got tough. And Judy Payne not only carried out all the normally acknowledged duties of the PhD candidate's spouse, but organised and ran computer runs at short notice - even in the middle of the night. Her contribution by way of patient encouragement has been every bit as important as her sensible comments on some of my more harebrained ideas.

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readers and audiences have helped to clarify what I meant to say. As always, the author must take the blame for any remaining shortcomings.

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INTRODUCTION

Social Mobility and Occupational Mobility

'Social' or 'class mobility' is normally thought of as movement between social classes, whereas it is operationalised in occupational terms and what is actually measured is movement between broad groupings of occupations. It is therefore often forgotten that social mobility is in fact occupational mobility, and so it is a product of employment processes which have taken place in specific historical and economic circumstances. The sociological literature contains few attempts at an occupational explanation of social mobility or accounts of how changes in mobility and the class structure have been altered by major social and economic events like two World Wars or the Great Depression.

Perhaps because the present research set out to investigate variations in mobility at a time when nationalism was an active political force, mobility in Scotland was seen as necessarily bound up with those features of Scottish society which made it distinctive. From the start, therefore, mobility was treated in a more concrete sense than in other studies which had taken an interest in mobility only to the extent that it shed light on theories of stratification. An emphasis on the historical, economic and social context of mobility runs throughout this study.

This perspective is outlined in the opening chapter which, starting from a consideration of earlier key contributions, attempts to show that mobility research has become increasingly restricted to a limited number of concerns. Sorokin's original multi-dimensional and all-encompassing vision has been replaced with more specific technical concerns about comparative analysis of how 'open' societies have become, or how national, educational and class recruitment systems operate. There is therefore a need to re-establish links between mobility analysis and other themes. Conceiving of mobility in occupational terms makes it easier to see what such links would be like (for example, with labour market theory, occupational transition, or theories of post-



industrial society).

That is not to say that mobility is not about stratification: indeed, quite the reverse. But before one can deal with the abstractions of mobility and class analysis, it is necessary to establish the occupational base on which a number of theoretical class models have (often unwittingly) been built. The present study concentrates more on this basic task, as a necessary first step, rather than on theorizing the current state of social class in Scotland.

Central to the analysis of occupational mobility is the question of the evolution of occupational structures. Put at its most simple, in modern society an increasing proportion of jobs are white collar. This creates new opportunities for both upward mobility and the 'inheritance' of non-manual employment by the children of non-manual workers. Mobility rates are therefore seen as directly related to the way in which demand for labour in a society changes over time.

The precise nature of such changes is not unproblematic, and therefore new information drawn from economic histories and a reworking of census reports will be presented to document the Scottish experience. This evidence is specific to Scotland but at the same time illustrative of modern society. Chapter 4 deals with the distinctive social characteristics that make Scotland sociologically interesting as a site, together with a brief history of economic and industrial development. This is seen as providing the concrete grounding which is normally lacking in mobility studies. It is also a contribution to the general understanding of Scottish society, a society which has in the past, received little direct sociological analysis. The following chapter goes on to look at male employment since the first World War in some detail. Industrial development is shown to produce a particular mixture of types of employment, in part typical of other modern societies and in part a result of the unique history of Scotland.

However, these chapters are not purely descriptive, because the material presented has been selected in the light of the discussion that precedes them, and is addressed to a number of theoretical issues. While it is a significant step to explain mobility in terms of occupational transition, it is also necessary to ask what brings about this increase in the proportion of white collar jobs? Two alternative explanations are offered: on the one hand, a marxist view sees the conditions of production under monopoly capitalism as the root cause, while on the other, the theory of industrial society attributes occupational transition to new technologies and the logic of industrialism. The former view also tends to play down the wider significance of this structural change, whereas the latter view places the new middle classes at the centre of the stage.

Much of marxist writing on mobility and occupational change is concentrated around two problems, the nature of the 'new middle classes', and the deskilling of the labour process. Despite recent claims to the contrary, Marx wrote very little on the new middle class or mobility, and did not see its importance. This is not surprising, because he also failed to account adequately for the occupational strata that lie between the bourgeoisie and manual labourers. Recent debates (for example the writings of Poulantzas, Hunt and Wright) are reluctant testimony to the fact that while Marx recognised the existence of the 'dritte personen' he afforded them little attention. Nonetheless, it is possible to identify within the organisation of monopoly capitalism factors that generate new occupational roles: the banking system and competitive exploitation of science for profit maximisation are two examples. The discussion of the theory of capitalist society in chapter 2 tries to assemble an explanation of why new occupations are created, and also draws attention to what the incumbents of such occupations do in the production process. The latter involves an analysis of occupational

functions, which lies at the heart of arguments over boundaries between the capitalist class and the new middle classes on the one hand, and the new middle classes and the class of manual labourers on the other.

The second theme in marxist accounts of the labour process is the degradation of skills and the proletarianisation of marginal labour. Although such views have recently come under attack, a further test of such models is to examine flows of recruitment between occupational classes with similar skill levels. Deskilling and proletarianisation are important for accounts of mobility because they propose that genuine opportunities for mobility are increasingly restricted.

In contrast, the theory of industrial society (which is reviewed in chapter 3) explicitly identifies the upgrading of skill levels and increases in social mobility as core elements of advanced industrialisation. Because specialist abstract knowledge is central to the technology on which modern or post-industrial societies depend, new occupational roles are needed to acquire, apply, and coordinate that knowledge. The new middle classes that result are seen to be sufficiently numerous and influential to warrant a revision of traditional class theory. While some writers suggest that class conflict is replaced by a new social order, others regard class conflict as substantially modified by the existence of the new classes. It is the latter view that the present author finds more plausible, and the professional/managerial class is singled out as requiring particular attention in the empirical analysis. Not least, the relationship between occupational achievement and educational qualifications is identified as an important factor in recruitment to this class. Following Giddens and Parkin, credentialism and mobility are seen as central to an understanding of this class, although perhaps such an 'understanding' has yet to be achieved.

Three main themes from the theory of industrial society are

regarded as particularly relevant to mobility research. The first is the idea of sectoral shift of employment from primary production and manufacture into service industries. This creates new kinds of occupations and reduces the level of employment in older types of occupation. Sectoral shift fuels occupational transition and therefore analysis by industrial sector is one of the major tools to be used in the investigation of mobility rates. Writers on modernization and convergence have also claimed that mobility rates increase in response to occupational transition. Data from the 1975 Scottish Mobility Study are used to explore this idea for the period since World War I. Finally, the idea of labour markets and their segmentation is used to explicate certain assumptions about mobility processes, and in turn, mobility rates are proposed as a possible means of identifying labour market boundaries.

Each of the two basic theoretical perspectives provides a necessary framework in which to explain the occupational transition effect. Their significance for the present study is that they offer a series of conceptual reference points, so that mobility can be attached to other sociological work in addition to its conventional siting in stratification theory. In as far as the study attempts new theoretical insights, it is in establishing such connections. Thus the mobility analysis draws on ideas from the sociology of the labour process and in turn provides new ways of examining models of employment which have not previously been expressed in mobility terms. The main thrust of this approach is to demonstrate the potential of such connections: quite deliberately, the study discusses a range of connections rather than concentrating in detail on any one, although naturally some ideas like sectoral shift of industries and the operation of labour markets receive more attention than others. The overall position is one which borrows eclectically from both main streams of sociological analysis.

One result of the theoretical and sociographical accounts in Chapter 1 to 5 is a critique of some of Glass's findings in Social

Mobility in Britain. It is argued that this key work, which has been the basis for so much theorizing of the British class structure and provided for over twenty years the cornerstone of knowledge about mobility, is not so much out of date as inaccurate in its statements on rates of mobility. Both occupational transition and class differentials in fertility are used in Chapter 6 to show that Glass seems to have underestimated the amount of mobility, both in Scotland and in England and Wales.

This leaves a substantial gap in our knowledge, which is only partially filled by the recent Nuffield Survey of England and Wales. The present study does not attempt a direct comparison, because the present author finds their results unsatisfactory for a number of technical and conceptual reasons. Not least of these doubts is the model and operationalisation of social class used, on which the reported levels of mobility completely depend. Further details of this are to be found in Appendix I, which also explains the class schema used in the Scottish study.

The empirical evidence for the research is drawn from official sources and from the 1975 national survey of Scotland by the Scottish Mobility Study (on which the author worked: see Appendix 2). This provided information on a random sample of over 4500 men aged 20 to 64, resident in Scotland, and it is their careers which are analysed in Chapters 7 to 10. Each chapter deals with one conventional focus of interest: intergenerational mobility; trends in mobility, education and occupational achievement; and intra-generational mobility. However, although the new data are intrinsically interesting and therefore reported in some detail, their presentation and analysis draws on the theoretical issues identified in earlier sections.

Thus Chapter 7 presents new evidence on mobility rates, and shows how upward mobility is associated with occupational classes that have expanded in the last fifty years. The identification of considerable

long range mobility, and general high levels of social fluidity is used as a test of various models of mobility and the class structure (e.g. the buffer-zone thesis). While in general the conclusions are at variance with the models, a comparison of elite mobility and mass mobility shows that social fluidity does not extend beyond the upper middle class to the elites. At the same time, the picture of fluidity has to be balanced against the continued relative inequalities in access to non-manual occupations, which restricts the life chances of manual workers' sons. The degree of movement in the several parts of the class system varies: the working class 'rump' appears to be becoming more consolidated, whereas the upper reaches of the middle classes show little in the way of common backgrounds as a potential source of class solidarity. An appendix to Chapter 7 explains why the upper middle class of professionals and managers needs to be investigated separately from other groups which Goldthorpe regards as the Service class.

Social fluidity - or rigidity for that matter - is constantly changing, and the next stage of the analysis deals with trends in mobility rates. By using moving averages, the impact of the Second World War and new patterns emerging in the 1960's are demonstrated. The several occupational classes comprising non-manual employment are examined for growth in size and mobility: the two do not necessarily coincide, and the classes themselves show no uniform profile. The finding that upward mobility is certainly not increasing and may even be decreasing since 1960 is probably the study's most striking result. The pattern is attributed to a combination of sectoral shift between industries and the expansion of non-manual occupations within industries, culminating in those new non-manual occupations of the 1960's being heavily concentrated in the 'newer service' industries - which have traditionally been poor upward mobility routes.

Although the emphasis in this discussion is on the demand side of mobility, that is the employment structures, it is also recognised

that the rules of recruitment have to be taken into account. Perhaps the most important of the rules is the need for educational qualifications: the growth of credentialism. Chapter 9 looks at educational achievement and subsequent career, concentrating on the upper middle class because it is normally argued that their occupations require sophisticated, knowledge-based skills. While it can be shown that access to such jobs is very loosely related to qualification levels, the data do not display strong evidence of a 'tightening bond'. Credentialism seems to operate only among the men who most recently came through the education system and into work, which may reflect the generally low levels of education in Britain compared with the rapid expansion of occupational demand. There is no evidence of Little and Westergaard's 'counter-balance' effect, so that overall, the significance of education as an explanatory variable for an adult population seems to be less than commonly assumed. One important exception to this is that the upper middle class and the elite are again shown to be sharply different. Whereas the elite make extensive use of private education, the upper middle class are much more typical of the rest of society.

Chapter 10 concludes the presentation of new data by looking at career (or intragenerational) mobility. While there are certain limits to these data, imposed by the relative youth of the youngest cohort, the analysis suggests that the early mobility trends discussed in Chapter 8 are confirmed in late careers. Direct and indirect mobility routes are used by men from both main classes of origin. The industry sector effect is again operative (as it was in education), as is the cohort effect, so that a close examination is necessary to disentangle the several processes at work. The second part of the chapter looks at career mobility in terms of two specific, 'non-mobility', debates. First, doubt is cast on Braverman's deskilling thesis because there are no flows of intra-manual mobility as there should be if skilled work has become more like unskilled work. Second, while industrial sectors and cohorts make useful approximations to segments of the labour market,

male unskilled work is shown to be poorly segmented from other occupational classes. The treatment of deskilling and labour market segmentation is intended to exemplify how mobility analysis need not be restricted to stratification theory narrowly conceived, but can be used to explore other fields of sociology once its occupational basis is recognised.

The concluding chapter draws together many of these points showing how the initial concern with historical change and economic settings results in a new mobility perspective. At the same time, it returns to some of the main contemporary questions in the stratification debate, in particular to the case of the professional/managerial class. The study is then an essay in occupational issues as well as a contribution to theorizing class in modern society.

CHAPTER ONEPERSPECTIVES ON SOCIAL MOBILITY.

The extent of movement in social position by individuals of diverse social origins ⁽¹⁾ has been of interest to sociologists for over fifty years, and a major sub-field for nearly thirty. Three contributions to the development of social mobility research stand out as turning points in this period. Sorokin's Social Mobility, published in 1927, marks its beginnings; Glass's Social Mobility in Britain (1954) is the key contribution to the 'modern' phase of analysis, while Blau and Duncan's The American Occupational Structure (1967) represents the later phase of highly sophisticated modelling of mobility processes.

Of course, it is possible to trace the origins of interest in social mobility to earlier sources. Most of sociology's Founding Fathers had something to say about stratification and changes in group membership. For example, one recent report on current social mobility has gone to some lengths to show that Marx was aware of the phenomenon ⁽²⁾, a judgement that is further discussed below in Chapter 2. But the early writers were far more concerned with stratification, institutions, and the division of labour than with mobility per se. As Blau and Duncan have observed,

'many of the great social thinkers of the last century ... developed theories of stratification or differentiation ... But neither (Marx or Durkheim) nor any of the many other broad theories of social class and differentiation had much influence on the systematic research on social mobility that has been carried out in the last two decades. Indeed, most empirical studies of occupational mobility never refer to these theories. Thus even investigators known to be conversant with and sympathetic to Marx's theory do not make reference to it in their mobility research' (Blau and Duncan 1967, 2-3).

By the same token, one would search Glass's work in vain for reference to 19th century authors as sources of inspiration. Instead, the reader is told that Sorokin's book 'is still the only comprehensive study' (1954, 5), and

(1) To use David Glass's definition of social mobility: Glass (1954, 5).

(2) See the opening chapter of Goldthorpe (1980). (For convenience, Social Mobility and Class Structure in Modern Britain is referenced as Goldthorpe (1980) throughout.

that only Ginsberg (1929) and Carodog Jones (1934) are listed as 'pioneer studies' (1954, 79 and also pp.4 and 13).

This is not to suggest, however, that social mobility sprang into sudden, fully-fledged being in 1927, completely without ancestry. Early writings in the field have drawn on even earlier contributions. For example, Rogoff - one of the very few sources which Glass does give - mentions the work of Chessa (1912) on recruitment to the Italian professions (Rogoff, 1951, 434), while Sorokin includes Pareto and his disciples Kolabinska (1912) on French elites and Sensini (1913) on Italy as sources that provided him with suggestive ideas (Sorokin 1928, 60). But these earlier studies tended to concentrate on recruitment to a single stratum, or to be based on a community study, rather than a national sample covering the whole of society, and it was not until Sorokin's major theoretical statement that the boundaries of the field were laid down.

At the same time, it must be admitted that a great deal of social mobility research has as a result operated in something of a theoretical vacuum. Despite attempting to illuminate processes of stratification, very little use has been made of classical statements, so that the published accounts seem heavily empirical and yet conceptually primitive. It may be fruitless to embark on an extensive historical search for social mobility's intellectual pedigree - and indeed that is something which is not part of the present project - but it is important to recognise that many social mobility investigators have compartmentalised their research quite separately from their knowledge of sociological theory. Significantly (if we take this country) it is the commentators who have attempted to link Glass's work to ideas about stratification, rather than Glass himself or his main collaborators. Parkin, Westergaard, Giddens, Miliband - and exceptionally Bottomore - are cases in point. The synthesis has not been particularly successful, as we indicate below in Chapter 6.

This study does in a small way attempt to draw out some of these neglected connections, but it is conceived as very much a 'main line' study. That is to say, it deals with a national sample, it looks at patterns of intergenerational transfer between occupational groups, and it is ultimately concerned with the nature of stratification in modern Britain. It is not primarily concerned with the consequences for individuals of being socially mobile, such as psychological stress or changes in kinship attachment, as is Richardson (1977). Nor does it make any pretence to express what actors understand by being mobile, to know what the subjective meanings of what the observer calls mobility are for those observed. These are very important questions, but at this stage the first priority is to know more about the canvas on which these more complex issues are displayed. Despite appearances, in fact very little is known about basic patterns of social mobility in Britain: as Chapter 6 argues at some length, what we did think we knew is probably mistaken. Furthermore, the explanations of those basic patterns that we draw largely from the 1949 L.S.E. study are highly questionable. In particular, an excessive - one might almost say obsessive - concern with education and equality of access have distracted us from the more relevant dimension of occupational mobility and the concomitants of work, careers and changes in employment opportunities. In order to appreciate both this view of mobility and the differences which mark off the present study from its predecessors, the first step is to outline the major contributions to the field of social mobility in the last half century. (3)

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- (3) With such a productive and international field as social mobility a comprehensive review would not rise above an annotated bibliography, and indeed the period to 1960 is largely covered by Miller (1960) and Mack et al (1957). Bibby (1976) and Kaelble (1981) also contain surveys. Instead, a number of the more influential studies are discussed with the intention of identifying certain common themes, and, through critique, of justifying why the present study has developed in its particular fashion.

Sorokin's Social Mobility.

Sorokin provides a link between the 'pre-history' and 'history' of social mobility. His work has the character of 19th century writing, ranging from Rome and Athens through medieval England to the contemporary American business elite and back, in an attempt to develop a sociology of industrial society on a grand scale. But it is also the first systematic and comprehensive account of mobility, and despite the limitations of the data available to him at the time, his work is remarkably close to later research findings

Starting from the notion of a multi-dimensional 'social space', he proposes

'to reduce the plurality of the dimensions into two principal classes, provided that each is to be subdivided into several sub-classes. These two principal classes may be styled the vertical and the horizontal dimension, dimensions of the social universe' (Sorokin, 1927, 7).

The vertical dimension is sub-divided into economic (i.e. wealth), political, and occupational components; specific 'channels' are identified - the army, marriage, professional associations, political alliances, and wealth; and different types of society are compared in terms of their flows of vertical mobility, both in 'velocity' and 'volume', through these channels (see particularly pp. 133-180). Sorokin also discusses the role of the family, education, and the employing organization as mechanisms of selection, or 'sieves' which permit the upward passage of some and deny it to others. At times he seems to adopt an optimistic quasi-functionalist view that the best people get into the best jobs:

'many societies have existed for a long time and this very fact means that their mechanism of social testing, selection, and distributing their members has not been wholly bad and has performed its function in a more or less satisfactory way' (ibid, 182: see also pp 190 and 202).

In other parts of his writing, he recognises that children are dissimilar from their parents, and therefore it is a necessary condition of an efficient society to have

'an equality in the starting point of children and an equality of chance ... The second fundamental condition

is the adequacy of the testing institutions and methods' (ibid, 530).

More specifically, Sorokin proposes several features of mobility in modern society (435-9 and 455-6):

1. there is a high level of dispersion of offspring to different occupational groups from those of their fathers.
2. all occupational groups consist of members with heterogeneous origins.
3. the difference between occupational groups as separate entities is 'blurred'.
4. there is, nonetheless, still a high level of occupational inheritance.
5. similar occupational groups (ie those adjacent in the occupational hierarchy) are more likely to exchange members.
6. mobility is therefore more likely to be 'short-range' than across the whole of the hierarchy.
7. the 'middle' of the hierarchy is likely to be more stable than the extremes.

With the possible exception of the last, all of these propositions have since received considerable attention from researchers, and been shown to be generally correct.

Similarly, Sorokin's work on the consequences of mobility in one dimension for behaviour in another has also inspired later sociologists, although here the emphasis has shifted. Sorokin writes about psychological dislocation, mental illness, suicide and moral disintegration (in a Durkheimian sense) among the mobile as consequences of isolation from intimate friendships and close kinship ties which require many years to establish (pp508-527). Although a few writers have speculated along these lines (e.g. Lipset and Bendix, 1959, 285; Stacey, 1967) a more fruitful line of enquiry has been to examine the extent to which mobility does reduce kinship interaction or community involvement: later sociologists have generally been less alarmist. (4)

(4) For example see Litwak, 1960a, 1960b; Adams, 1968; Bell, 1968; Richardson, 1977; Goldthorpe, 1980.

At this distance, the sense of anxiety about mobility in modern society is one of the things that strikes the contemporary reader. In talking about horizontal mobility, Sorokin likens modern society to

'a mad "merry-go-round" in which men, objects and values incessantly move with a mad rapidity, shift, turn round, clash, struggle, appear, disappear, diffuse, without a moment of rest and stability. Compared with immobile societies in all these respects they offer a contrast to them no less striking than that of boiling water or a waterfall to a quiet pond or lake' (Sorokin, 1927, 394).

This somewhat over-dramatic style may have been a contributory factor to the 'distortion' of Sorokin's conception of social mobility by later sociologists. As was noted above, his mobility was a multi-dimensional one, including not only several sub-divisions of vertical space, but sub-divisions of horizontal space as well. Modern mobility research has concentrated almost exclusively on mobility as vertical occupational movements, although as we shall see later in this chapter, this has been treated as if it were social mobility in a more general sense. The present study attempts to rectify this, not by exploring other vertical sub-divisions, but by explicitly confronting the occupational dimension.

It also draws on another neglected feature in Sorokin's work, namely the role of historical events (pp 142 and 466). Contained in his panoramic review of human history is a very simple and sensible point: societies are disrupted by wars, revolutions, famines and other natural disasters. These real events remove the incumbents of occupational strata (as in the Russian Revolution), kill off competitors (as in the Great War), or speed up circulation (as in periods of economic boom). The process of mobility is bedded in a concrete time and place, and yet modern analysis have almost nothing to say about world wars, the depression, or even technological change. Their world is a rarified place of statistical relationships with little reference to the twentieth century and its complex

changes. Had Sorokin had better data available to him, he might have been able to demonstrate his point to greater effect.

Even nearly twenty years later, when with the L.S.E. study of Britain in 1949 this kind of evidence did become available, subsequent writers failed to take up the question of historical settings. The 1949 study was historical in the sense that it was concerned with the effects of the 1944 Education Act, but it went little beyond that. There are no index entries for 'war' or 'unemployment', and only four to the Depression - all in Jean Floud's chapter on the educational experiences of adults. In this, and in many other respects, Social Mobility in Britain typifies the next generation of mobility studies.

'Social Mobility in Britain'

Of the three major contributions which have been identified at the start of this chapter, the work of David Glass and the L.S.E. team is the most important. It not only provided a conceptual and technical orientation for later research but also produced empirical evidence about mobility that was taken up by other sociologists for the next twenty years. The fact that it was a study of Britain of course makes it all the more relevant for the present project.

The major publication arising from their work, Social Mobility in Britain (Glass, 1954) is a collection of cognate chapters ranging over education, marriage, and mobility, technical problems of statistical analysis, and reports of work on voluntary associations, the professions, and subjective class ratings carried out separately from the main national sample. Of these, it is the sections dealing with social mobility per se which are most relevant, together with the introductory explanations of why the researchers tackled their tasks in a particular way. Glass gives priority of place in his opening remarks to two themes, an interest in 'the formation and structure of the 'middle classes'', and in the consequences of the passing of the 1944 Education Act 'which, so far as social stratification is concerned, is probably the most important measure of the last half-century' (1954, 3;4).

Glass's interest in the middle classes, by which he seems to mean mainly the professions and the higher civil service (e.g. see pp 4-5), led him to look at the wider picture as a first step:

'Self-recruitment in the professions and the higher Civil Service would have little meaning unless compared with self-recruitment in other occupational groups. Indeed, it was clear that the study of particular groups needed, as background, a general investigation of social status and social mobility in Britain' (ibid, 4-5).

It would not be unfair to say that the British working class features in the L.S.E. research more as a by-product than as a main focus of the analysis.

Because of this orientation, there is paradoxically not a great deal of the section dealing with the main investigation in Social Mobility in Britain which is about class differences (except in relation to educational access). Although extensive data are presented in the various mobility tables, there is little commentary on, or use of, them to discuss class boundaries, class consciousness and integration, or the rigidity of the class structure as a whole. These were issues taken up later by writers who saw the potential of Glass's evidence for class analysis. What little original discussion there was dealt mainly with the upper occupational strata, rather than the lower.

In the same way, the team's interest in educational reform was to see what effect it might have upon the existing middle classes and 'its role in the formation of new elites' (ibid, 4). The 1944 Act would reduce the effect of family background on the type of secondary education received, so that 'social mobility will increase, and probably increase greatly' (ibid, 24).

This would be a desirable result for two reasons. First it would increase economic and social efficiency,

'since with a fluid social structure there is more likelihood that positions requiring high ability will in fact be held by individuals who possess high ability ... secondly, from the point of view of the individual ... there may, as a consequence, be less feeling of personal frustration and a greater possibility of social harmony' (ibid, 24-25).

Not surprisingly, later writers (for example Kreckel, 1973 and Goldthorpe, 1980, 21-23) have commented adversely on this rather narrow conception of what is problematic about social mobility. There is no concern with equality of condition, only equality of access. The harsh realities (according to Glass's own data) of a relatively closed class system, the privileges of the middle class and the deprivations of the working class, feature little in the commentary. The orientation is liberal social democrat or 'Fabian'; the product is 'rather bloodless, rather statistical', to use Strauss's phrase about social mobility in general (Strauss, 1971,2).

Goldthorpe has recently argued a slightly more generous line that Glass was also concerned with equality of condition in that he opposed private education and wished to avoid meritocratic selection leading to a new, more legitimate but still powerful elite. This may be true as a judgement of Glass as a man, but whereas Goldthorpe himself produces several quotations from Glass which show the latter as a Fabian meritocrat, he produces only a single one to substantiate his assertion that Glass was also a socialist seeking major social change - and that quotation, read in context, is extremely ambiguous, for the 'other paths to social prestige' need not refer to any humanistic or socialistic values, but are discussed in the same conflict-reducing framework that was noted above (see Goldthorpe, 1980, 23, and Glass, 1954, 26-27).

While one sympathises with Glass in the sense that he was writing soon after the 1944 Act in a period when Labour Party hopes were still high, and that his general investigation of social mobility was an important step forward for its time, this should not blind us to the limitations of his position. In the light of the Scottish data, for example, Glass's concern with education as a reforming factor is to say the least, questionable (see below Chapter 9), and the emphasis on the middle

class (something the present study, it must be said, also largely shares) means that other issues received less attention. In particular, as this chapter goes on to argue, the occupational structure itself was so neglected as to distort not only the L.S.E. study, but also to influence later writers (among them, members of the I.S.A. social stratification and social mobility group which first met in 1951) so that the occupational dimension of mobility remained virtually unexplored for the next twenty years.

Most important of all, the present author is extremely sceptical about the core findings on mobility rates in the L.S.E. study. This is such a fundamental question to raise, as well as being based on a technical argument, that it deserves a chapter to itself. Glass's results are therefore not discussed at this point, but below in Chapter 6.

Nonetheless, it must be acknowledged that Glass's work has been absolutely central to the mobility field. In this country it effectively put an end to further mobility research for a generation, because after 1954 we 'knew' about mobility and could use what was known as the basis for writing on stratification. Sociologists like Parkin and Westergaard (and others, see below Chapter 6) felt no need to get involved in new data-collection exercises, when patterns of mobility had been so clearly demonstrated. The influence of Glass was, then, in terms of his results as far as his own country was concerned, whereas internationally it was the techniques and the novelty of the research itself which helped to inspire comparable national studies throughout most of Europe, America, and eventually in Japan, Australia, and much of the Third World. It was one of the key inspirations of the third main contribution to the development of social mobility, that of Blau and Duncan.

'The American Occupational Structure'

Blau and Duncan's work was by no means the first on social

mobility in America, ⁽⁵⁾ but like the L.S.E. study in its time, it was more comprehensive, technically more sophisticated, and conceptually more developed than previous efforts. Using a sample of 20,700 respondents representing about 45 million men 20 to 64 years old in the civilian, non-institutional population, they analysed not only occupational mobility but also the relationship between mobility and migration, ethnicity, kinship, and fertility patterns. In particular they attempted to demonstrate how family background factors (parental education and employment) operated on and through the respondent's own schooling, and first job, to produce the respondent's current socio-economic status. This involved the use of path analysis, a technique which dominated American mobility research for the next decade. In essence, path analysis uses multiple regression techniques to parcel out effects between variables in a simple model that is chronologically structured. Once the model is established, it can be used to make causal statements about how changes in the level of one variable bring about changes in the dependent variable. Again, the Blau & Duncan model can be elaborated from its original quintet of variables by adding more variables, which improves its effectiveness. ⁽⁶⁾

Despite its initial attractiveness, path analysis has not been much adopted by what we might call the 'European sociological tradition'. In part, this is due to a number of important technical features of path analysis: for example, there are limitations on the comparison between one survey and another; the variables are assumed to be normally

(5) See for instance Sjoberg (1951); Rogoff (1951); Hollingshead (1952); Chinoy (1955); Lenski (1958); and Lipset and Bendix (1964).

(6) See Blau and Duncan, 1967, 163-177. Simple explanations of the technique can also be found in Silvey 1975, 113 and more technical accounts can be found in Blalock, 1970. The work of Sewell and others at the Madison Centre for Demography and Ecology at the University of Wisconsin, for example, is typical of the complex elaboration that has been undertaken to model the American status achievement process.

distributed; the excluded variables (which by definition, there must be in a simple model) reduce the explanatory power of the model and must be treated as causally irrelevant, and so on. An excellent critique of path analysis in mobility research is to be found in Crowder (1974). However, the lack of popularity of path analysis is also due to its association with the conceptual framework in which Blau & Duncan operated.

They regard social mobility primarily as a process of status attainment, which in industrial society is dominated by universalistic values. Ascriptive factors like family background must play an increasingly small part in deciding occupational fates, because achievement factors such as educational qualifications and work performance are necessarily more important when it comes to filling posts that require technical skill, where the efficient discharge of work tasks is essential to the working of a technological society. What Blau and Duncan call the 'universalistic system' (1967,430) produces technological progress, high standards of living, greater equality of opportunity, reduced kinship ties, higher rates of migration, differential fertility, 'stable democracy', and high rates of occupational mobility (430-31).

It is possible to object to this view in two ways. First, one could make point by point objections, such as the continued existence of ethnic and sexual discrimination, i.e. discrimination on ascriptive characteristics, which is not explained by such a model. Second, one can object that the whole orientation of the approach is misplaced: the rôle of property and power are completely omitted from consideration, and the fate of identifiable classes or strata is lost under the associated assumption that under universalism, 'the occupational structure is more or less continuously graded in regard to status rather than being a set of discrete status classes' (*ibid*, 124). In other words, one can approach stratification not as the outcome of a value system, but rather as the social product of a particular set of class relations arising from the dominant mode of production

under modern capitalism. In one view, the value system is the paramount consideration, in the other, it is the relations of production. Although the present study adopts the latter view, it is worth noting that Blau and Duncan still manage to compare the positions of working and middle classes, and that their framework does not exclude family background or differential access to education as relevant objects of study. Consequently there is a great deal in their work that is of interest, not least their comments on occupational change, which have perhaps not received the attention in European Sociology which they merit.

Other Themes in Mobility Research

The purpose of high-lighting Sorokin, Glass, and Blau and Duncan, was first to identify important turning points and sources of influence in the history of the subject; second to demonstrate some of the major themes in social mobility research; and third to introduce three perspectives on mobility which at least in part have direct relevance for the present study. Of course, selecting any three contributions from what has already been acknowledged to be an extensive body of research can provide only a partial picture of that field, and in order to help the reader further to locate the present work within that wider literature, it is necessary briefly to mention some of the other major developments.

We have already commented on the effect that Glass's work, via the I.S.A., had on stimulating national studies. Given the centrality of the structural questions to which he addressed himself, other sociologists in different countries naturally wished to examine their own societies to see if patterns of mobility were similar to those Glass had reported for England and Wales. This in turn provided the basis for comparison between societies, most notably those of Lipset and Bendix (1959) and Miller (1960). The variety of occupational categorization schemes used made this

a difficult task and one of doubtful value: Miller's discussion of elites, for example, defines an elite as consisting variously of anything from 0.9% to over 15% of the population, while Lipset and Bendix's conclusion that 'the overall pattern of social mobility appears to be much the same in the industrial societies of various Western Countries' (1964, 13) is based only on movements across the manual/non-manual line. (7)

These international comparisons reflect an interest in the openness of class boundaries in different societies, most notably possible differences between America and the European societies, which has origins in early ideological statements about the American way of life, and in sociology, in the work of Sombart (1906) and Sorokin (1927). This in turn is related to the problem of social and political order, which is a much more important feature of, say, Lipset and Bendix's work, than Glass or Blau and Duncan.

One of the first concerns which Lipset and Bendix discussed in Social Mobility in Industrial Society is the problem facing any ruling class: to exclude potential incomers from the lower ranks, or to admit them? Which is the more threatening to the continuance of their power? The issue in the complex area of mobility and class structure becomes access to the elite, rather than the position of the middle classes, or the working class, while the notion of mobility as inherently desirable is questioned. Moving away from a stable social group sets up pressures on the individual and may weaken the stability of the system as a whole. As Goldthorpe has recently observed in a discussion of interest and ideology in mobility research,

'the theme recurs that an unremitting emphasis on universalistic values may lead ultimately to socially disruptive rather than to socially integrative effects' (Goldthorpe 1980, 19).

(7) To be fair, Lipset and Bendix do make some allowance for the farm/non-farm distinction, but this is still a very crude measure compared with the greater specificity of the original 15 studies (see footnote 4 page 13 of Lipset and Bendix, 1964).

Successive generations of American sociologists have drawn on this tradition. The size and regional variation of the United States has proved a fertile site, while the greater technical sophistication of American methodology has both prompted more interest in what is a heavily statistical field, and also stimulated new techniques of analysis. Following Blau and Duncan, new forms of the basic path model were proposed (for example, see Sewell 1969,) and more recently Hauser et al (1975) have introduced log-linear modelling techniques to disaggregate structural effects. There have been two kinds of reaction against these developments. The first criticism is that the theoretical orientation attaches too great an importance to mobility as against other aspects of the class structure, and tends to be supportive of a false notion of America as an open society (e.g. Osipov, 1969, Bertaux 1971, Kreckel, 1977). The second criticism is that the technical elaboration of the analysis has distorted the kinds of questions being tackled and that many of the statistical techniques are inappropriate for the uses to which they have been put (Crowder, 1974; Noble, 1981).

Although social mobility research in Europe has also become more technically sophisticated, it has not done so to the extent of the American work. Interest in the last few years has turned to alternative perspectives: Müller (1977) for example has argued that real historical events (like the rise of the Nazis in Germany, and the Second World War) must feature in an explanation of mobility, while an interest in the complexity of individual mobility records has led some studies to examine complete occupational histories (as in the Irish Mobility Study). Despite these divergent approaches, there is a strong undercurrent of interest in class (see Girod 1979), which marks off almost all the European work from that in the United States. (8)

(8) A frequent comment among European sociologists at the I.S.A. Social Stratification and Social Mobility Seminars is that 'the first day is given over to the Americans, so that the real work can begin for the rest of us on the second day'.

Mobility and Class

This is clearly exemplified by the centrality of class in publications resulting from the Nuffield Study of Social Mobility in England and Wales. Heath's opening sentence in Social Mobility poses the question, 'how are men to be recruited to positions of power and privilege?', while he takes as the first 'landmark' in the development of answers to this question to be 'Karl Marx and class formation' (Heath, 1981, 11 and 13). Similarly Goldthorpe's main report on the Nuffield Study is entitled Social Mobility and Class Structure in Modern Britain, starts with a chapter dealing largely with Marx on class, and uses the term 'class mobility' in five of its eight other chapter headings (Goldthorpe, 1980; see also p 287).

It may seem surprising that reference to these products of the Nuffield Study has not been made before. However, there are several good reasons for this. First, although presenting some interesting results from the society most similar to Scotland (ie, England and Wales - not Britain despite Goldthorpe's use of that term) together with some changes in perspective, the Nuffield Study can be seen more as a step in a continued direction, rather than a major change of direction. Heath's clear and precise survey of the field is explicitly designed to be a survey of the state of art, accessible to the layman (although his later work on female mobility, and on occupational structures is more innovatory (eg, Britten and Heath, 1983; Heath and Ridge, 1983)). Goldthorpe and Halsey introduce new technical sophistication developed elsewhere, such as in Hauser's work, to the British social mobility scene, and present more up-to-date data on mobility to replace dependence on Glass's 1949 data. It follows that their contribution is of interest, and parts of it are discussed in more detail below - the second of the reasons for not dealing with them here. But because of the type of contributions that the Nuffield Study has made, ie, the continuance of an established tradition, the main reports do not merit identification with Sorokin, Glass, and Blau and Duncan, as key points of reference.

The other reason lies in the relationship between the Aberdeen and Oxford studies. This is dealt with in greater detail below, and elsewhere (Moore and Payne, 1978). At this point it will suffice to note the emphasis on a sociography of Scotland in the Aberdeen work, rather than a concentration on a comparative study with England and Wales. Although some commentators have since taken the view that this seems a peculiar choice of focus (for example both Hope and Goldthorpe in personal communications, and Kendrick, et al 1982a, 12), an interest in Scottish conditions together with an interest in mobility theory per se, is equally valid. The comparative dimension - which leads one into more direct dialogue with Goldthorpe's work - has since been tackled by two of the author's recent research collaborators (see Ulas, 1983, and Chapman et al 1984).

While comparative sociology is not a major focus in this research, an interest in comparative stratification has been one of the central motives in mobility research in general, and provides an essential link for much of past research between national studies of mobility and a concern with stratification. In this context, mobility is a measure of rigidity of the stratified order over time: high rates of mobility suggest a system in which, despite whatever inequalities may exist at any one time, more people (or rather their families) have access to the more desirable statuses in the long term. Conversely, low levels of mobility indicate a highly stratified, caste-like, order in which inequalities apply to successive generations. American sociologists in the 1950s and early 1960s, such as Bendix and Lipset, were particularly keen to compare societies for their degrees of openness or closure in this way. More recently Goldthorpe's collaboration with several European sociologist (eg, Erikson et al, 1979, 1981) demonstrates a renewal of interest in this approach.

A second connection between class and mobility comes in the use of mobility rates to identify the boundaries of classes. Those statuses which readily exchange members can be thought of as having more in common than those between which exchange is limited. An examination of the 'natural breaks' in the mobility flows reveals the basic class structure, while changes over time in such breaks indicate changes in the shape of society, and the relative success or failure of groups in narrowing or maintaining the gaps between the classes. Recent examples of this approach can be found in the work of Parkin, Westergaard and Resler, and the marxist debate over the class position of 'the new middle classes'.

A third use of mobility in stratification theory is as an explanation of class consciousness (or more precisely, lack of it). If there is considerable movement between classes, then the present members of any class are more likely to have been born and socialised in some other class. That is to say, they will bring with them values and experiences appropriate to a different way of life, which will prevent them from belonging as completely and unquestioningly to their new class as those who have been born into, and lived all their lives in, that class. Indeed, their imported values may infect the host population leading to a mongrelisation of class values. In this way (following Sorokin) there is less chance of a distinctive class consciousness emerging, or for in-comers to acquire it should one begin to develop. In turn, there is less prospect of collective class action. Albeit expressed in less overtly marxist terms, Giddens and writers on the new managerial class like Galbraith and Crosland have adopted this argument.

A final example of the close conjunction between stratification and social mobility is political stability. Two perspectives can be differentiated here: on the one hand, mobility is seen as a safety valve used to bleed off working class pressure for change, by allowing the most able to pass into the ranks of the middle class, so leaving the working class without effective leadership. In this view, mobility appears as a mechanism of control, which serves to perpetuate the capitalist order. (9) The alternative view stresses the pacification effect on the unsuccessful (or immobile) of believing either that the able really do succeed, or that their own lack of success does not preclude their children from being mobile. Here the emphasis is more on legitimation, rather than control, but in both mobility is used to explain the continued survival of an inequitable and otherwise insupportable system (e.g. the writings of Michels and Sombart).

Without the driving force of sociology's central interest in stratification and social order, mobility would not have assumed its current importance within the sociological lexicon. However, the very strength of the connection between mobility and stratification has, paradoxically, narrowed our awareness of mobility and the way it relates to other problems. Specifically, we have not looked hard enough at the occupational dimension of 'occupational mobility'.

This point is exemplified by the differences between the Nuffield study of England and Wales, and the present work. The former was explicitly designed to be an up-date of the 1949 investigation, albeit using somewhat more advanced statistical tools (10). As a result, it tended in its style to be something of a throwback to an earlier era of mobility research, and it must be said that it did owe far more to Blau and Duncan, and Glass, than it did to the latest trends beginning to show on the continent.

(9) 'The more a ruling class is able to assimilate the most prominent men of the ruled class the more solid and dangerous is its rule' (Marx, 1959, 706)

(10) See the original application for a research grant to SSRC, 1969.

The criticism must also apply to the present study, because in its early stages it was influenced by the Nuffield project. However, after the first few months, a very considerable estrangement occurred⁽¹¹⁾ and the Scottish Study developed on rather different lines. In the first place, on a pragmatic level, the Scottish Study's national survey provided an opportunity to correct the near-absence of empirical 'sociographic' research north of the border (see the comments of Anderson, 1974; Kent, 1980; and Parsler, 1980). The rise of nationalism and the devolution debates have now made it commonplace knowledge that Scotland has different legal, religious and educational systems, largely separate media, an identifiable cultural tradition, a different pattern of economic, demographic and geographical problems. But in 1973 this was not so widely accepted, nor was the dearth of Scottish sociology generally seen as problematic.

Secondly, and at a more conceptual level, the research adopted an approach to mobility which saw it as grounded firmly in the local economic, social and historical conditions of Scotland. Since mobility operationally constitutes a comparison of two occupational statuses (the father's and the son's) an explanation of mobility involved an explanation of how individuals come to be given jobs. This in turn raises questions about the industrial and occupational structure, about labour markets, about job choice and qualifications, about labour migration: that is, about the various processes by which workers enter a system of employment which has an objective reality pre- and post-existing the individual, and which constrains his or her freedom of action.

(11) A more detailed account of the 'estrangement' is to be found in Moore and Payne, 1978, and in the methodological appendix below.

This approach was not at first seen as anything different from the main British paradigm stemming from Glass: rather it was seen as a simple extension of it. The study retained an ultimate orientation to the theories of class structures, but with the intention of identifying mobility as the outcome of (mainly economic) processes that are historically and geographically unique. In this way, the study was seen as a contribution to the general field of mobility (both as a new ethnographic study for comparative purposes, and also in proposing a small variation of the original paradigm by stressing real events) as well as being a major step forward in the general empirical sociography of Scotland.

However, the comparatively simple idea of looking at local conditions, and in particular of taking the idea of occupational mobility seriously, is in fact a major departure from earlier work like the Nuffield Study. It represents a marked shift in emphasis away from conventional class theory towards other aspects of sociology, notably the sociology of work and the labour requirements of modern societies. In that sense, although this study does relate to more recent work, it looks back more to Sorokin than to much of the other writing discussed.

Conventional Empirical Treatments of Occupations, Mobility and Class

When modern sociologists have talked about social mobility, they have normally concentrated on inter-generational (and to a lesser extent, intra-generational) occupational mobility among men. In practical terms, this has generally meant comparing a son's job with that of his father. The son's job may be his first job, or his job after ten years of work, or three years ago, or more commonly, his job at the time of interview. These are the four "job points" examined in both the Oxford Study of England and Wales in 1972, and the Aberdeen Study of 1975. Some more recent European studies have concentrated on parts of a career (Müller 1977), while others, including the Irish Mobility Study, have collected whole life employment histories.

The father's job has been taken as his present or last job (Glass 1954) or his job at some stage in the adolescence of the son, usually dependant on the school leaving age of a particular country during a particular period. In Britain, the age of fourteen has been chosen in recent studies. The movement of a son between the two social statuses defined by his own adult membership of one occupational group, and his previous indirect membership, by virtue of his juvenile family position, of his father's occupational group, is occupational mobility. Intra-generational mobility refers to movements during one man's lifetime between any two job points that he has occupied. (12)

In most writing about mobility, the terms 'social mobility' and 'occupational mobility' are used synonymously, a practice which will be followed here in the interests of variety and familiarity. However, it is important to recognise at the very outset that strictly speaking mobility is measured in an occupational dimension. The mainstream European tradition has used occupation in a direct way, with similar jobs grouped together in broad categories or 'classes' (again, there is a conventional and imprecise use of the word class for any occupational grouping). The Americans have preferred to measure mobility between socio-economic statuses, based indirectly on job, and expressing some weighting for income, education and prestige ranking. (13)

However, it is no coincidence that writings about 'social' and 'occupational' mobility between 'classes' have used these imprecise

(12) It has lately become fashionable (eg, see Letters to the Editor, The Times, 14th, 22nd, and 25th January 1980) to dismiss mobility research as useless because so much of it deals only with men. Although the omission of women is a serious defect, it does not totally invalidate knowledge gained about males. A fuller discussion of this problem can be found in Payne et al, 1983a, and some data on female mobility in Scotland in Payne et al, 1980. Because the present account deals with male social mobility, the use of masculine forms ('he', 'his') throughout is a correct usage.

(13) An extensive discussion of the occupational categories adopted in the present study can be found in Appendix 1.

terms interchangeably. Certainly in Europe, few sociologists have been interested in mobility per se, or even as an aspect of occupational processes. Far more important has been a concern with social stratification, in which occupation is taken as a convenient indicator of class membership, and occupational movement stands for movement between classes or statuses.

Of course, it must be said that the equation of occupation and social class is a well-established one in British Sociology. In the first place, 'social class' is itself a complex social phenomenon. Unless class is defined in some very precise way one immediately becomes enmeshed in the interface with other dimensions of stratification such as status and political power; even if class is taken in its narrowest sense, that pitfall is never far away. Reid compares the conceptual and practical side of the problem:

'Social class is a multidimensional concept, involving not only the identification of what are partly invisible categories in society but also an understanding of the effects of these on the people involved ... In British research ... almost the sole criterion of social class which has been used is occupation' (Reid 1977, 15).

Reid is saying that on the one hand it is not possible to contain the notion of class in a simple economic or market straightjacket, and on the other, that there is a legitimate tradition of using occupations as a pragmatic device in the empirical exploration of class. The latter is generally accepted in Britain by sociologists with widely different persuasions. Runciman has observed that

'Occupations are at once the most obvious and the most effective predictor of differential location within the structure of social inequality' (Runciman, 1966, 55),

while on the heavily empirical flank, Monk, a former employee of the SSRC Survey Research Unit, notes that

'Occupation has remained the backbone of social grading because no better methods have been found' (Monk, 1970, 10).

Occupation has been generally chosen because it provides a simple, universal and relatively unambiguous identity (or rather it did until sociologists woke up to the fact that females, too, need a class identity, but that many of them do not have occupations that carry the same meaning as for men). Occupation carries with it connotations of income, and therefore possible patterns of consumption; levels of skill and educational entry requirements, and therefore life styles; sets of opinions, values and attitudes and therefore political behaviours; collectivities of work-based friendships, and therefore group identity; social prestige and therefore influence outside of the work setting; even patterns of fertility and mortality are associated with occupational groupings. Since all of these factors are part of the stratified order, and are all in various degrees correlated with occupation, it has been taken as the single and simplest indicator of position within a social hierarchy.

This is to say two things about occupations in previous and in the present work. First, occupation represents other aspects of stratification because it is highly correlated with them. But second, occupation is inherently connected to other aspects of stratification, so that the analytical distinction between occupation and these other features is a heuristic device. In particular, in stressing the centrality of occupations for purposes of examining hierarchies, the cluster of connected features remains important, however unstated, despite what might at first sight be a treatment of occupation conceived of narrowly as a set of work tasks. It makes little sense to regard occupational mobility as if it were only an exchange of work tasks: when this study stresses the occupational dimension it does not do so just out of an interest in occupations per se, but out of a joint interest in work and stratification.

Conceptualising Occupations and Classes

The previous discussion treated occupation (and to a lesser extent, class) as relatively unproblematic, but it is necessary to be somewhat more precise before entering into further discussion. Bechhofer's survey shows that occupation, the more straightforward of the two concepts, has been used to convey a variety of ideas, ranging from work task in a narrow sense to a broader mixture of income, authority and social prestige. Two main components have most commonly been emphasised:

'the precise job description, with the focus on the work content; and the position in the industrial hierarchy, with the focus on the internal stratification of industry' (Bechhofer 1969,99).

Both of these are important, not least in discussing how occupations can be used to represent classes.

A contrary view can be found in recent marxist writing, in which the technical division of labour and the social division of labour are kept separate. Here occupation per se is less important, and while the technical division of labour is relevant for discussions of how surplus value is extracted, it is the relationship between classes that retains theoretical primacy.

Thus Abercrombie and Urry argue that

'although occupational designations are very often used as a convenient shorthand for class position, they are not theoretically equivalent. Occupation typically refers primarily to sets of job tasks, that is, it refers to positions within the technical division of labour ... the concept of class refers primarily to the social relations at work, or positions within the social division of labour ... Occupational designations may actually obscure class position because technical features do not entail social features'
(Abercrombie and Urry, 1983, 109).

At one level, this is a valid observation: the employed professional and the self-employed professional carry out many of the same technical functions but occupy different class positions. On the other hand, a sharp distinction between 'job task' and social relationships makes it difficult to specify the job tasks of certain people, such as a foreman or

manager whose work task is to occupy an authority relationship over others. While technical task may be a starting point for identifying occupational categories, as in census and other classifications of occupations (Bechhofer 1969, 98) the role within the enterprise must be treated as an integral part of occupational identity if a full picture is to be gained.

This position has been built into the classification scheme used in the main empirical work presented below. Unlike the scheme used by Goldthorpe (1980) and Halsey et al (1980), the classification developed for the Scottish study makes explicit and rigorous use of the 'employment status' (manager, foreman, employee, etc)⁽¹⁴⁾ which was part of the original grading exercise in the preliminaries for devising the Hope-Goldthorpe scale (see Appendix 1 below for more details). Thus each 'occupational class' so defined reflects a similarity of task and authority, and possibly also of status as perceived by the respondents who graded them, among its component occupations. This is not to say that occupations will be treated as identical to class, but that the distinction between the two in some respects has been reduced.

Indeed, the 'occupational class' as used in this study is very reminiscent of Lockwood's statement of 'class situation'. People in a common occupational class share similar levels of skills in order to carry out the technical tasks of their jobs. Their skill level defines to a large degree their market situation, ie, their source of income and its size, their job security and mobility chances. Their common employment position expresses comparable sets of social relationship at work, derived from similar positions in the division of labour; that is to say, a common work situation. And the ranking of the occupations, whatever the origin intentions of Hope and Goldthorpe, probably reflect common positions in the status hierarchy, or a shared status situation⁽¹⁵⁾.

(14) It should be noted however that Goldthorpe regards himself as working precisely within Lockwood's framework: see Goldthorpe 1982, 169-170; Hope and Goldthorpe, 1974 on the origin construction of the scale; and footnote no. 8 in the draft of Goldthorpe and Llewellyn (1977) (in the published version this is reduced to a simple reference to the Blackcoated Worker).

(15) The similarity of position to that of Lockwood clearly locates the present study outside of the marxist tradition.

One other of the key dimensions used in identifying occupations with classes, property, is given a relatively low priority in the occupational class scheme, for two reasons. First, the number of people in certain proprietorial positions in the mobility study sample was very small; this applied particularly to 'large proprietors'. They were merged with the top category of managers. Second, very small-scale businessmen (self-employed non-professional workers) are treated as part of the same group as foremen and supervisors. This reflects their actual grading scores and recognises that to become a foreman, or 'set up on one's own' is a common if not always realistic occupational goal for many manual workers. However, the idea of large property (as against petty property) differentiating a capitalist class from the ordinary men in the sample is retained as an important element, even if it is not manifest in the main occupational class scheme (see Chapter 7 below). The concept of skill as 'property', and the ownership and control debate, are discussed in the course of the next two chapters. The occupational classes are therefore perhaps more 'occupational' than 'classes', in that they do not take into account property or result directly through theorizing from modes of production.

This does not mean that mobility is conceived as existing simply in a concrete dimension of individuals on the move. Both occupations and classes can be thought of as positions or as people. In mobility research this is central, because people are seen as leaving one position and moving to another. The position, and the composite structure of all positions, is separate from the person moving. This accords with everyday life: a job is created, advertised, and filled. The new incumbent works in the job for a while and then leaves for another job. The post is then re-filled by someone else. Employment is dependent on the pre-existence of a position.

It is therefore possible to talk about occupations at both levels. In a mobility study one talks about, say, the patterns of recruitment to the professions and empirically represents the professions as places by examining those people in the sample who reported that they worked as professionals. In principle at least one could add to this some measure of employment vacancies and unemployed professionals, in order to have a fuller account of opportunity. This would deal more directly, albeit still empirically, with positions, while the simpler approach deals with individuals.

The distinction is sometimes hard to sustain, but it can play an important part, as in the work of Stewart et al (1980) on clerks and clerical employment. They argue that the position of clerical workers is filled almost exclusively by young men on their way up to managerial positions and old men who are former manual workers. It is not a position containing persons who have worked or intend to work for long periods as clerks. Thus although at any one time clerks may have similar work tasks and hierarchical positions, it makes little sense to talk of them occupying a common position because their origins and destinations are so diverse. While they point that persons carry with them 'social baggage' from, or ready for, another occupational or class position is a strong one, their rejection of clerical work as a useful category is dependent on its unique mobility characteristics. Other occupational categories are more useful, if only because their incumbents remain in them for longer periods.

We may contrast this view of persons and places with that of Poulantzas, who argues that even if

'the bourgeoisie would take all the places of workers and vice versa, nothing fundamental about capitalism would be changed since the places of bourgeoisie and proletariat would still be there' (Poulantzas, 1975, 33).

While recognising Poulantzas' wish to attach importance to capitalist relations,

he is not correct in claiming that people ('social agents' in his form) are irrelevant to class analysis. If people are mobile, their 'social baggage' is not lost in transit, even if much of it is no longer used on arrival. A bourgeois who was formerly a member of the proletariat is not the same as someone who has lived all his life in the bourgeoisie. It is this fact that makes analysis of class such a difficult empirical problem, and which acts in real life to reduce and confuse class differences.

It is not to be supposed that the present author's insistence on mobility between occupational classes is a misguided attempt to evade such problems. On the contrary, by separating out occupation and class (despite the similarities identified above in our account of 'occupational classes') we gain not so much precision and order as a means of making new connections and further elaborations. Our occupational classes for this purpose may be regarded as simply a representation of that central fact in man's existence in industrial societies, work in paid employment.

Occupational Mobility

In looking at work and mobility we may begin by asking mundane questions about work processes in life cycles: how do men obtain employment, or lose it; what are the requirements for promotion, why do men change jobs, and so on. These kinds of questions mean that we take the metaphor of occupational mobility seriously, and narrow down our focus from the grand horizon of

stratification theory to the more commonplace world of work. This does not imply that we are concerned solely with work tasks, or that we are abandoning our earlier statement that occupation cannot be isolated from other aspects of stratification. Rather, we are recognising that our view of stratification, if based on occupation, is conditioned by the processes which themselves condition occupations. The other side of this proposed concentration on occupation operates in the reverse direction; we can expand our interest by asking wider, historical questions, such as how do social changes generate new patterns of occupations, patterns which in turn account for observed mobility? In other words, we need to consider theories of the evolution of advanced industrial society - or the emergence of modern capitalism - which either directly or indirectly deal with occupational processes.

Both of these elaborations of the more conventional approach to mobility are basically very simple ideas. If mobility is measured by means of occupations, then the commonsense explanation of mobility lies in whatever determines the supply of and access to, those occupations. Starting in a concrete way, we can examine the society of our choice much as an economic or social historian would. It is possible to describe changes in the size of the labour force, its gender, its industrial composition, and its work skills: the census will provide a decennial framework for this. Other official sources (such as emigration and unemployment figures), memoirs, and company histories may describe how certain older industries declined, while elsewhere other industries based on new technologies developed, so contracting some occupations, and expanding others. Again, major events like the Great Depression and two World Wars must have made some kind of

difference to the employment histories of men of working age during them. It may also be possible to analyse the regional or segmented labour markets which make up the national picture. Men are not universal units of labour in a society-wide market: rather, they are restricted by social ties and the friction of space to selling their labour in only one localised segment of the total market at any one time.

Presented in this fashion, the proposed analysis sounds almost pedestrian in its obviousness. But the reader will look in vain for such a treatment in the literature on social mobility in Britain, and will need to search with great diligence to find even partial programmatic statements among European writers (see, for example, Bertaux, 1969 and Müller, 1971)⁽¹⁶⁾ It is true that the main thrust of research into the relationship between education and mobility seeks to locate mobility in a framework of legislation, institutional practice, and educational reform (Little and Westergaard, 1965; Halsey et al, 1980). However, such analyses have concentrated on class differentials in access, and there is an inadequate recognition of occupational change and the full range of historical factors involved.

And yet the basis for a sociographic approach can be found in the work Sorokin and Glass, who both talk about historical and demographic changes. Indeed, the latter initiated one of the key technical debates in measuring mobility, the attempt to eliminate 'the effect of the marginals'.

(16) When the present author outlined this 'sociographic' approach at the SSRC International Mobility Seminar in 1975, it clearly surprised the other participants. Goldthorpe's contribution to that seminar (later to be published as Goldthorpe and Llewellyn, 1977) was subsequently revised to take in a new section on changes in the occupational structure, exactly as proposed (Payne et al, 1975). However, this remains the only (and a very partial) British attempt to connect mobility to its historical context.

It was early seen that in a mobility table, the size of the origin categories, relative to the destination categories, imposed arithmetic limits on the amount and kind of mobility that could take place.

Numerous indices were proposed to control for this effect, so that the remaining 'true' mobility could be estimated for comparison with other societies or previous eras. It has been conventional to distinguish in this way between 'forced' (or 'structural') mobility which is due to the differences between fathers' and sons' occupational distributions, and 'pure' mobility.

To take a simple illustration, Fig. 1 shows a mobility table in which there are more sons in non-manual work than there were fathers.

Fig. 1.1 A hypothetical two by two mobility table (percentages)

		Son's Occupation		Totals
		Non-manual	Manual	
Father's Occupation	Non-manual	30	5	35
	Manual	20	45	65
Totals		50	50	100

Because non-manual opportunities have expanded between the two generations, there is a greater chance both for the sons of non-manual men to obtain non-manual jobs, and for the sons of manual men to be upwardly mobile. With 15 percent more of the sons in non-manual employment, these new non-manuals have to be recruited from either the sons of non-manual fathers (where already 30 out of 35 are getting non-manual jobs) or from the sons with manual origins. Had the sons' occupation distribution been 60/40, rather than 50/50, then there would have been an absolute shortage of sons from non-manual origins to fill

all of the available posts, and a further 5%, with manual origins, would have to be forcibly drafted in to fill the vacancies. An alternative way of putting this is to say that with half of the destinations being non-manual, there must be some upward mobility, but with only half of the destinations being non-manual, there cannot be upward mobility for every one of the 65% of men born into manual families. Glass's indices of association and disassociation were an early attempt to eliminate the way marginal totals constrain patterns of mobility: many others were proposed in the next twenty years (Bibby, 1975). The (usually implicit) assumption was that structural mobility was a distortion of the picture, which hindered comparison between societies. 'Pure' mobility was due to institutional practices (like education) and so reflected the extent of 'democracy', or openness of societal arrangements, in a given culture.

Paradoxically, then, the existence of a structural effect was well known, but no-one sought to analyse it in its own right ⁽¹⁷⁾. It was not until 1975, with Hauser's two AJS papers, that much attention was given to the idea that the central issue in mobility rates might be the occupational structure itself, rather than the social processes of access which had normally been assumed to account for mobility up to that point (Hauser et al, 1975a,b). In using a log-linear modelling technique based on Goodman's work, Hauser found that changes in American mobility

(17) One explanation for this may be that the academic specialists who were concerned with the statistics of mobility became organisationally differentiated from those generalist or historical sociologists who knew more about events of social change. Even if there was communication between the two, the task of connecting sample data to extraneous historical patterns is not an easy one, as we shall see below. Another explanation is that Glass's writings (which were tremendously influential) tended on the whole to point away from the historical, and subsequent writers followed his lead.

rates (defined as odds-ratios, i.e. comparisons of relative chances of mobility) could be adequately reconstructed from a very limited set of parameters which did not include a term for temporal change in the internal processes of mobility itself. In other words, Hauser treats 'pure' mobility as a constant, while allowing the occupational distributions to vary over time; this generates an estimate for mobility which is sufficiently close to observed mobility that treating pure mobility as a variable makes no significant improvement in goodness of fit (as measured by a X^2 -type test). Parallel findings have been since reported for several other countries, except Sweden (Erikson, 1977), and variations in technique have also yielded similar results (eg, Hope 1980). It may be that the odds-ratio is not the best measure of mobility, but Hauser's work provided both a statistical technique and an important new impetus to mobility research. Changes in occupational structures became the problem.

Earlier it was suggested that taking the metaphor of occupational mobility seriously leads logically either to a more specific and empirical consideration of occupational processes and structures, or to a relocation of mobility within mainstream sociology. Rather than asking what does mobility tell us about stratification, the new question asks what does a study of mobility tell us about the evolution and character of the particular type of society which has existed in this country during this century? Of course, this still remains partly a matter of stratification. If 'the particular type of society' is defined as advanced capitalism, then class is going to remain one of the central issues. Even writers who have adopted one of the rival definitions of contemporary society (as 'advanced industrial' or 'post-industrial' society) do not ignore the form which stratification takes, even if their conclusions are quite different from

those of the marxists. However, the emphasis and ordering of problems will not be the same, if only because there must be a more explicit reference to ideas about the nature of a society which is based on an advanced technology, and specifically about occupational change.

Occupations and Occupational Mobility.

To what extent can changes in the occupational structure be said to explain patterns of mobility? By definition, an expansion or a contraction of an occupational group changes the overall flow of recruitment to (and from) that group. Such a change manifests itself as an arithmetic relationship in a mobility table; in both real and analytical terms, the change in the recruitment is caused by the change in the occupational structure. It does not however explain the details of the new recruitment. The new recruits to an expanded occupation may come more from other groups in the upper part of the hierarchy, or from the same groups or from lower groups - or the new posts may be shared out in exactly the same proportions as before.

Although this last possibility seems unlikely at first sight, it is not completely implausible. If one assumes for the moment that the mechanisms of selection (in Sorokin's sense) do not change, then the allocation of people to the new posts within an expanding occupation will favour (and discriminate against) exactly the same kinds of people as before. Until the point is reached where all of these potentially eligible people have been allocated, and there are still 'vacancies', the incomers will just be 'more of the same'. After all, past recruits have come from diverse backgrounds, so that it is unlikely that the criteria for selection are so precise as to restrict entry to a very small sub-set of the population which can be exhausted before the expansion has been filled up.

We can qualify this statement to take account of what is generally known about occupational change, i.e. that it is the non-manual occupations that are growing in both absolute and relative terms. This growth is of two kinds, the expansion in size of existing occupations, and the creation

of completely new occupations. In new occupations there are at first no formal rules of entry, no union or professional association to limit access. New recruits are people from other very similar occupations who drift across into a new specialism. The new occupation attracts members much like its closest ancestors even if its formal qualifications are not established. This in turn tends to make its later history of selection like those other occupations, at least in terms of the origins of its recruits.

Being in the upper part of the occupational hierarchy means that increased recruitment on the previous pattern has two effects. It offers more non-manual careers to the sons of non-manual fathers, so increasing immobility and cutting downward mobility. At the same time it offers more non-manual careers to the sons of manual fathers, so reducing immobility and increasing upward mobility. The joint effect is to reduce downward mobility, and to produce some kind of balanced effect on immobility and upward mobility, depending on the precise recruitment pattern reproduced. Because the original pattern of recruitment is one that selects from diverse origins, there is no automatic outcome beyond this. It would be just as wrong to assume that non-manual sons will benefit most, so increasing immobility, as to assume that manual sons will benefit most, so increasing upward mobility.

Again we have built into this model the further assumption that recruitment is from diverse origins, which it is (see below, Ch. 7). However, there is an additional broad patterning to the relationship between origins and destinations, namely that manual jobs are predominantly filled by sons of manual workers and - to a slightly lesser extent - that non-manual jobs recruit disproportionately from sons of non-manual fathers. It is the former type of occupation that has, on the whole, been contracting during most of this century, and the latter which has been expanding. Since these dominate the types of occupational change, this strongly affects any measures of change. For instance, the probability of being born middle class has increased, and so have the chances

of a middle class son getting a middle class job: the ratio of the two probabilities (as in the odds - ratio) reflects both changes.

Detailed discussion of these changes is given below in Chapter 4, but as a rough guide, the overall trend in Scotland since 1921 has been an expansion of non-manual male employment from being about 28% of the labour force to about 39% in 1971⁽¹⁸⁾. Spread over fifty years the change is not very great: if sons follow fathers into work some twenty years later, their opportunity structure is on average only around four per cent more non-manual than their fathers'. Of course some specific occupations were greatly affected and others less so, and there has been no single historical trend, which further complicates the picture.

These arguments are predicated on the explicit premise that the mechanisms of selection do not change, but this is an assumption that has more heuristic value than empirical reality. In the first place, the spread of universal post-primary education means that more people have the qualifications to take non-manual jobs, and as Little and Westergaard among others have argued, the middle classes have done better out of this education boom than the working classes. As education is certainly a selection mechanism for many expanding occupations, the sons of the middle class have improved their competitive position for entry vis a vis the sons of the working class. In the second place, the relative expansion of one sector draws off recruits who might otherwise have competed for places at a lower level. This leaves the mechanisms of selection in the second - or in the generalised case, all other - occupational group(s) working on different 'human materials'. We would therefore expect the reproduction of the original patterns of recruitment to be somewhat distorted, because all occupational groups are changing at the same time.

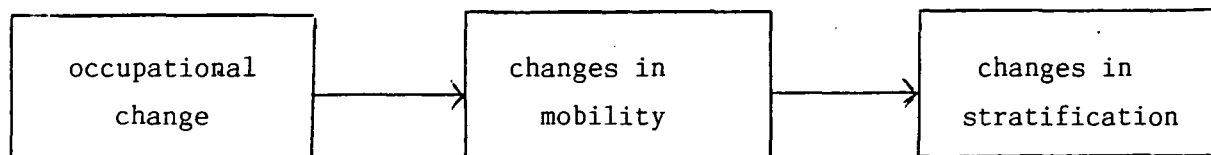
(18) Based on Census data and definitions.

For these several reasons, it is not possible to 'explain' mobility, in the sense of making precise predictive statements, on the basis of occupational change. It remains an empirical question to investigate what the consequences for mobility patterns may be. Equally, the operation of the selective mechanisms, for example education, remains part of the explanatory model, because we wish to know not just how many men from a particular origin have been recruited, but why these men rather than others from the same origins have been recruited. Thus the traditional interest in English mobility analysis, access to education, is not lost: rather it is balanced by the introduction of occupation on the demand side of the demand/supply function.

The change in 'occupational demand' is not the only element which a concern with occupation introduces. The distribution of occupations between regions and industrial sectors, the rate of technological change in each, and the shape of local labour markets help to identify the constraints on an individual's 'choice' of occupation. The mechanisms of knowing about vacancies, deciding whether a post is attractive, and the way fathers are able to intervene directly in the hiring process provide links between the structural framework and the life chances of the individual actor. To the extent that these are patterned by changes in 'occupational demand' - which is an empirical question - they represent elaborations of the basic relationship (not all of which can be dealt with here).

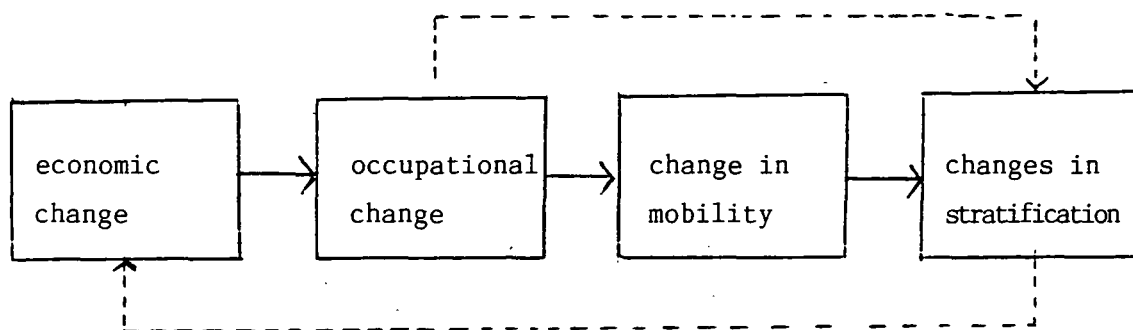
The point has already been made that this is a shift in emphasis as compared, say, with Glass's focus on education as the key mechanism. It is also a shift in the way in which stratification is linked to social mobility. Most mobility research has concentrated on the argument that when mobility occurs, it does something to the stratification system. What the present study attempts to do is to extend the normal chain of connections, which may be represented as in Fig 1.2.

Fig 1.2 Conventional relationship between occupation and mobility



Compared with earlier studies, we wish to emphasise the first of these connections. In fact, the present account goes beyond this, although only a partial and indicative way, to suggest other links in the chain, as in Fig 1.3;

Fig 1.3 Modified relationship between occupation and mobility



First, occupations do not change autonomously. Occupations depend on the use of labour in the production of goods and services by organisations. These organisations are controlled by social actors, who deploy capital, new technology, and other factors of production in pursuit of their goals. This economic process creates or destroys occupational opportunity.

Second, changes in occupations do not just affect stratification through mobility. Improvement in the market position of an occupational group improves its financial standing, while deskilling of its task degrades it. This direct effect is represented by the upper dotted line in Fig 1.3 not because it is unimportant, but because the present study is less concerned with that kind of relationship, important though it is.

The lower dotted line in Fig 1.3 connecting changes in stratification to economic change is a reminder that few relationships work purely in one direction. An example of this connection is the argument that the new middle

class created by occupational change will adopt a set of political and social priorities stressing communal rather than profit maximising goals. Expressed in contemporary terms, this would be support for public expenditure rather than cuts or privatisation of state operations. The use of the dotted line in Fig 1.3 as before indicates a legitimate and interesting line of connection, but one which does not take a central place in the present work. Other such lines could be added, for example connecting economic change directly to changes in stratification to take account of changes in property and modes of production.

However, it will be recognised that two basic sociological positions are implied in the apparently simple figure above. First, the style of explanation is one that invokes large scale and general changes to explain a more specific phenomenon. It is a structural, macro-sociological, argument which makes little allowance for man as a creative social actor who reconstructs social reality through his subjective meanings.

In the second place, the main emphasis is on the link between occupation and stratification. That is not to say that stratification is totally a product of occupation, but rather that this study is about occupations rather than say, property, or status, or the relations between classes. Necessarily the aspect of stratification which receives attention here is the economic one, so that 'classes' are empirically defined as aggregates of occupations, and class positions are chiefly conceptualised in terms of market work situations. Other views of class, stressing 'struggle' or the dynamic created by the opposition of class interests, therefore receive little attention.

Despite this, Fig 1.3 as it stands is not tied to a single theoretical framework. With minor changes of wording the figure would be compatible with several competing positions. The basic structure of the connections would be almost as acceptable to such varied writers

as Bell, Dahrendorf or Wright. The next step must therefore be to locate the core process of connections in a wider framework of ideas.

Broadly speaking, marxist writers have argued that an explanation of class must be sought in the mode of production, and therefore concentrated their efforts on that feature. Johnson, for example, has criticised the Weberian tradition for taking the market in which property and labour are sold as given, and thereby for failing to see that the value of skills depends on the needs of the mode of production (Johnson 1977). Crompton and Gubbay (1977) identify the extraction of surplus value as the key process, which turns the market into a system of exploitation. In this view, both marxist and non-marxist accounts can be heavily economic in emphasis, but the former claims to have identified a more fundamental level of explanation. Non-marxists, such as Parkin (1979), tend to find the connections between the mode of production and the complexity of modern society hard to substantiate. They therefore draw on a wider range of economic forces (technology, knowledge skills, income) to account for a social world which increasingly is seen as departing from a two-class model of society.

In order to structure these different theoretical positions, it is necessary to make a somewhat arbitrary division between 'theories of capitalist society' and 'theories of industrial society'. Broadly speaking, the former draw on Marx, and attach varying degrees of primacy to the search for profit and control of the market exchange system, and to the historical process of class struggle. The latter stress the growing application of inanimate power to production, and the consequent new forms of social relationship associated with large-scale organisations and the factory system.

This dichotomy helps to impose an order on complicated ideas, and each school receives separate treatment below. However, although the division is artificial, it is not accidental or even strictly conventional. The principle involved is one of causal explanation:

given that mobility is seen largely as a product of occupational change, how are we to explain occupational change itself? The two schools adopt different views.

It is for this reason that we have chosen to contrast 'capitalist' with 'industrial' theories, rather than the more common Marxist versus Weberian distinction (Abercrombie and Urry 1983; Scott, 1979) even though the two dichotomies have many similarities. The latter distinction owes more to the debate about class, in which mobility as occupational change is a relevant but subsidiary part, whereas the differentiation used here brings out the occupational dimension more directly. It will be necessary to extract elements from that debate and even at times to re-locate individual contributions in an unusual context, but the main focus of the present work makes this desirable.

Any discussion of two schools of course disguises the internal complexity of debate that each contains. It follows that the temptation to proceed by means of comparisons between their different treatments of central issues, like technology or the growth of the middle classes, must be resisted because it is likely to result in too fragmented a picture. A prior - if only partial - consideration of each theory in its own terms and with its own internal disagreements is needed in order that those features which are directly related to mobility can be identified, in order to inform our analysis. This is seen as a step in the direction of re-establishing connections between mobility and several of the major themes of sociological theory, as a counter-balance to mobility's present isolation as a sub-problem of social stratification.

CHAPTER TWO

OCCUPATIONS IN MODERN SOCIETY 1. The Theory of Capitalist Society

The theory of capitalist society not only has its origins in Marx's work, but much of its contemporary debate (for example about the new middle classes) is tied to the detail of his writing and frequently refers back to Marx for legitimation. This chapter therefore begins by examining how Marx accounts for the core characteristics of modern society, particularly those relating to labour, and then goes on to discuss certain aspects of subsequent development of marxist ideas. Necessarily, the version of these theories presented will be truncated and selective, because the prime focus of the present study is occupational change and mobility, rather than class struggle or the complex abstract models of modes of production which are central to marxism.

The discussion, which includes a review of basic ideas as well as some specialised and recent literature, is intended to serve three functions. First, it provides a theoretical framework in which mobility can be situated and from which mobility takes its meaning. Second, the discussion attempts to show which sub-themes within the general theory have a particular relevance for mobility as re-conceptualised in the first chapter. Finally, some of these sub-themes suggest themselves as amenable to empirical treatment in the present study, and so form the basis of the analysis carried out in later chapters.

The initial step in this is to characterise the main elements of the theory of capitalist society, drawing attention to its conception of work and class relations, and concentrating on Marx's ideas about changes in the middle strata. This is followed by a discussion of two specific sub-themes, to which marxist and neo-marxist sociologists have made important contributions; the nature of the new

middle classes, and the debate over technology and the degradation of labour. These sub-themes again receive a less extensive treatment than if we were interested in them for their own sake.

Historical Changes in Labour

We may begin by acknowledging the essentially historical style of the theory of capitalist society. As a result of its proponents' concern to show the uniqueness of modern modes of production, considerable attention has been paid to earlier social forms. From this it is possible to draw an important if somewhat general observation about the variety of ways in which labour has been organised in production. Mobility research assumes the 'freedom' of the individual to change jobs, and perhaps more crucially, not to follow in his father's footsteps, but this is dependent on the existence of contemporary forms of labour.

For example, under feudalism, the labour force typically consisted of serfs, free neither to determine their masters, their own movements, their own work tasks, nor the form in which their rents were paid to the lord. In a low technology, simple economy, this applied to the vast majority. Even outside of the agricultural system, in the new towns whose growth contributed to the decline of feudalism, labour was not free. (Anderson 1974; Wallerstein, 1974; Hill, 1969). There, the medieval guild system of production differed from that of feudal servility, because master, journeyman, and apprentice typically lived and worked together as a domestic unit. Nevertheless, the master retained strong paternalistic control, and the distinctions between the grades of labour were very marked. In particular, progress from journeyman to master was restricted by the guild's regulation of trade, and the frustration of the journeymen (over what we might re-interpret as blocked mobility) was ultimately one of the pressures that helped to

undermine the system. The rigidity of the guild system did not just limit sideways and upward movement of labour; as urban growth continued, the guilds were unable to meet expanded demand for their products.

The mode of production that replaced the guild system was based on the merchant capitalist 'putting out' his work; providing the raw materials for families of out-workers who used their own tools in their own homes to manufacture goods which were then returned to the merchant for sale. The master/ journeyman/apprentice paternalism was thus replaced by a simpler cash relationship, but one in which the out-workers retained some control over production. Recent writers have seen this as a central issue in the introduction of the factory system.

While factory production does allow the introduction of large scale, inanimate sources of power (such as the water mill or steam engine) its attraction lies in overcoming what, from the merchant's point of view, were three defects of home-based work, namely

'the lack of control by the merchant-capitalist over his workers; the economic losses through waste and fraud; and the uncertain nature of the labour force. The independent, voluntary status of the worker was slowly eroded in an attempt to increase the efficiency of exploitation, first, by allowing the worker to get into debt and, second, by taking away the worker's ownership of his tools. These two factors opened the way for the emergence of a class of alienable wage-labourers dependent on the capitalist class for both a living and a livelihood.' (Clegg & Dunkerley, 1980, 50).

In this view, the industrial revolution, with its new technology and organisation, has no meaning except as the 'successful' outcome of the efforts of the capitalist class to establish its domination of society, to shape the social order (by controlling state machinery and other ideological apparatus) to suit its ends, and to develop new forms of capital accumulation. Under industrial capitalism, those who have no means of production must sell their labour as best they can on a market which is determined by the capitalists' purchase of labour for the production of their chosen products. Beyond that

basic contract, there is nothing: worker/capitalist relationships are impersonal. To put it another way, workers are in principle free to change jobs and to obtain the best job they can, within a market where jobs are being created and destroyed by the capitalists through their control over the technology of production, and also over decisions whether production itself shall continue or cease. Feudal, guild, and out-work labour are replaced by a system in which social mobility, at least within a single broad class, and subject to market constraints, is possible⁽¹⁾.

The underlying impersonality of the relationship between capital and labour is also further determined by the form of the business enterprise in modern capitalism. The rise of the joint stock company separated the capitalist from the enterprise itself; his ownership remained but his control was exercised indirectly (and some would argue, less effectively (eg Burnham, 1945)) through the persons of managers and the legal entitlements of 'money capital', that is shares and bonds etc. By means of one company controlling another, in increasing chains, the distance between the capitalist and the actual productive activity was extended. At the same time, a banking apparatus was required to handle the expanding workings of a joint-stock system, which helped to change the function of the banks from small borrowing and lending concerns into major forces which themselves exerted control over production.

(1) Although this account has been presented in ideal typical terms, in order to point up the particular character of labour under capitalism, it also reflects the heavy historical emphasis of this school of social analysis.

'The central theme of the theory of capitalist society is the dominance of finance capital. Lenin and Bukharin both point to the fact that monopolized capital in banking and manufacturing fuses into 'finance capital' ie, capital which is not restricted to one particular sphere of activity' (Scott, 1979, 24). (2)

This process hastens the 'inevitable outcome of the nature of capitalism' (Aaronvitch, 1955, 14), that is the growth of monopoly capitalism, in which production is dominated by fewer and fewer, larger and larger enterprises. The banking and managerial apparatus needed for monopolistic corporations consists of new technological forms, manifested in occupations requiring new skills. Indeed, some jobs involve day-to-day control of the corporation and its other employees. But that does not introduce any fundamental change in the basic relations of production.

'After all, the real power over production remains with the owners and not with those who in their name are directing technological progress, etc. The engineers and clerical employees of a monopolistic company cannot throw its owners out nor force them to surrender a portion of the profits in favour of the workers. The owners, on the other hand, can hire and fire engineers and clerical workers and dictate their will just as they could a hundred years ago.' (Kuusinen et al, 1959, 292).

Nor, as Mills has pointed out, can the manager automatically pass on his advantageous position to his children. They in turn must struggle for their own advance as he did before them (Mills, 1963). Real power remains in the hands of 'a few hundred or at most a few thousand men of wealth' (Perlo, 1957, 13).

(2) Scott is of course looking at the theory of capitalist society in terms of his interest in corporations, rather than in terms of our present interest in mobility.

However, the separation of ownership from direct control, together with the growth in the scale of organisations, the introduction of complex new technologies, and the need for an apparatus of ideological legitimation all require a different kind of wage labourer. This new middle class ranges from the top managers of major corporations, whose services are progressively rewarded with gifts of shares until they are effectively absorbed into the capitalist class, to some kinds of clerical workers (for example, machine operators in Californian banks) whose pay, conditions, and skills have been eroded to the point that their work is indistinguishable from manual labour (Braverman, 1974). 'The middle class' is a misleading title: it is only one class in the sense that it lies between the capitalist class and the class of manual labourers, and that, in the theory of capitalist society, it owes its being to the forces of capital accumulation inherent in monopoly capitalism. But the diversity of its composition is such that it would be more accurate to talk about the middle classes. This not only reflects the internal differentiation of status that the incumbents themselves acknowledge, but also goes some way towards recognising that different occupational groups owe their existence to different aspects of the capitalist process. These points will be elaborated later in the chapter.

It is the emergence and massive growth of the new middle classes which provides the major opportunity for social mobility in capitalist society, although it is the more fundamental relationship between labour and capital which 'frees' the worker to be a mobile agent in the market place.

Marx and Mobility

It might be expected from this conceptual basis that marxist sociologists would have investigated social mobility extensively. Some writers on class in Britain, for instance Westergaard, have used the findings of earlier studies in a limited way, but that apart, there has been little empirical, and not much more theoretical, work on mobility from the standpoint of the theory of capitalist society (two exceptions are Smith (1981) and Robinson and Kelley (1979)). On the contrary, one of the more important recent accounts of social mobility in England and Wales (Goldthorpe, 1980) starts with a lengthy defence against those on the left who see this kind of work as ideological support for the capitalist system.

Goldthorpe acknowledges that evidence of mobility patterns can be used ideologically, and the opening chapter of Social Mobility and Class Structure in Modern Britain devotes considerable effort to the identification of 'interests' in writing on social mobility: that is to say, to relating various styles of social mobility analysis to the positions that key figures have taken on the subject of the class structure of capitalist societies in particular, and capitalism in general. While this can be justified as a means of clarifying sub-schools within mobility analysis, its explicit rationale (pp 2-3) is as a direct response to the marxist critique that a concern with social mobility is inherently bourgeois. Furthermore, its treatment of the selected key figures is uneven: the attention devoted to Marx is unjustified except in terms of a perceived need to placate a potentially hostile audience on the Left. (3)

(3) An alternative explanation lies in a tendency for British sociology to be over-concerned with its intellectual roots (see Payne et al, 1981)

Thus we find the first nine pages concentrating on a demonstration of the fact that Karl Marx did in fact deal with social mobility. Fourteen direct references or quotations are introduced between pages 4 and 9, with the sources ranging from the Manifesto, through the Eighteenth Brumaire, and Theories of Surplus Value, to Capital. (4). Goldthorpe uses this evidence to challenge the more accepted view propogated by Van Heek:

'Nineteenth century liberalism was blind to the problem (of mobility): Marxism attached little importance to it.' (Van Heek 1956, 131).

But as Goldthorpe himself has to admit,

'while Marxism no less than liberalism thus foreclosed on the question of mobility, the further point that we would wish to bring out here is that, so far as Marx's own writings are concerned, the significance of mobility is in fact a good deal greater than has usually been supposed. It is true that Marx discussed mobility directly only, as it were, in the context of other problems, and then at no great length.' (Goldthorpe, 1980, 4, - first emphasis original, second added).

This presents us with the dubious argument that Marx may have written almost nothing about the subject, but that it had great 'covert significance' in his work (Goldthorpe, 1980, 4). We must therefore decide whether Marx saw the true significance of mobility and yet capriciously chose not to write much about it, or whether he in fact only partially saw it as a problem, mistook its true importance for future developments, and so paid it scant attention. (See also Crompton and Gubbay's sceptical comment (1974,47)).

(4) Although there are only two direct references to it, Goldthorpe appears to be drawing heavily on Harris (1939), whose work Goldthorpe calls the outstanding critical contribution to the study of intermediate strata in Marx's work. (Goldthorpe, 1980, 32)

If we are to believe Goldthorpe, Marx did appreciate the importance of mobility, despite writing almost nothing about it in the whole of his prolific output. Two consequences follow from this position. First, Goldthorpe has established that mobility can be analysed from any ideological standpoint, not just from that of the apologist for capitalism. Second, he has established a hallowed, symbolic pedigree for the study of social mobility: if Marx himself sanctified it, we may all safely follow in his footsteps. Goldthorpe goes on to discuss several post-marxist writers who, he is able to demonstrate, use mobility as a means of elaborating aspects of Marx's work. Thus Bernstein deals with the fate of the lesser classes, or strata, caught between the two major forces of the bourgeoisie and the proletariat; Sombart grows pessimistic about the fate of socialism in an affluent and mobile society like America - a kind of society not fully anticipated by Marx; and Michels deals with the way mobility aspirations and achievements weaken the position of the working class. Significantly, Goldthorpe's accounts show only that these writers were in dialogue with Marx, not that they were in dialogue specifically with the fourteen quoted references where Marx spoke directly on social mobility.

This same caveat must be entered in the case of four more recognisable contributors to social mobility; Sorokin, Lipset, Glass and Duncan. While Goldthorpe skillfully disentangles the differences in interest and emphasis that distinguish these four sociologists, he is unable to show how they responded to Marx's view of social mobility. Indeed, it is apparent that their ideas are part of a non-marxist critique of capitalism, but in no way can be said to be a direct response to Marx on mobility. These writers belong, as we shall see, to the theorists of industrial society.

If, on the other hand, one rejects the Goldthorpe position that social mobility had some kind of 'covert significance' for Marx, where does this leave a marxist view of mobility? It was suggested above that there is within the theory of capitalist society ample grounds for an explanation of mobility. Nevertheless, it is not a subject which has received much attention. In fact, social mobility as it occurs in modern capitalism seems to be a source of great embarrassment to marxists. Its existence weakens class boundaries, dilutes class consciousness, and helps to explain the failure of Marx's prediction of proletarian revolution. Why have marxists (apart from defectors like Sombart) not studied mobility?

First, as indicated in the previous chapter, some writers like Poulantzas lay so much stress on abstract structures of production that in comparison mobility of persons has no significance at all. Second, empirical analysis (except for historical analysis, where there is not much to be said about mobility) has not been a strong point of European, and particularly British, marxism. Goldthorpe is right that mobility can be studied by sociologists of any ideological hue, but he fails to recognise that marxist sociologists have shown themselves almost without exception to be able historians or theorists, but most unwilling to carry out systematic contemporary field work⁽⁵⁾. No amount of invocation of the Master's works will change this: it will remain far easier to label mobility analysis as bourgeois and so define it out of relevance.

(5) This critique is developed in Payne et al, (1981), pp 70-84

However, this dearth of empirical sociological research is less important than the main point that social mobility in its modern sense fits uneasily with Marx's own conception of capitalism. Although he allowed for several minor strata between the bourgeoisie and the proletariat - such as state functionaries, small traders or industrial managers - and in numerous places acknowledges the existence of the middle classes ⁽⁶⁾, the main concentration of his argument was on the significance of the two major classes and the dominance of the one over the other ⁽⁷⁾. If, unlike Goldthorpe, we choose to concentrate on this other element in Marx's work, then it becomes apparent that social mobility is an unresolved problem, particularly in his early writing ⁽⁸⁾.

(6) For example Marx and Engels (1962, 41); Marx, (1969, 300); Marx (1959a, 293), although passing references to multiple classes or strata are numerous in his work: see Evans (1975, 80-81).

(7) Obviously, there is a danger of over-simplification if one concentrates too narrowly on the 'two class' aspect of Marx's work. However, an emphasis on domination and the two major classes is not incompatible with recognising the importance of the minor classes - see for example Wesolowski (1979, Part 1). Harris's discussion (1939, 328-332) of the middle class in Marx shows how over-simplification can be avoided by appeal to the overall balance of Marx's writings. The polemicist of the Manifesto is not to be taken as representing the scientist of the 18th Brumaire or Capital (Harris 333-4).

(8) Although see McLellan (1973, 13-25) for a discussion of "periods" in Marx's writing.

In the first place, if one emphasises this dimension of Marx's work, and leaves to one side for the moment the new middle classes, the two classes are by definition separate and mutually antagonistic. It is possible for there to be limited downward social mobility, as a capitalist fails and is reduced to the ranks of the proletariat by the loss of his capital. It is harder to see how Marx's theory allows for the accumulation of capital to permit individual mobility in the reverse direction. In the longer term, the proletarian revolution will result in a kind of social mobility (although Marx did not think of it in such terms) when the ruling class is deposed and a classless equalitarian society is established. Until that day, all other movements between occupations are unimportant, and not to be described as social mobility, because by definition, almost all of them take place within a single occupational category, the working class.

It is slightly unusual to present Marx's conception of class in terms of occupational categories in this way. In non-marxist discussions of how occupational categories are constructed, two main criteria, work task and associated rewards, stand out (see Appendix 1). In Marx's writing, members of the proletariat share the same relationships to the means of production: they sell their labour. Although the details of what labour they sell differ, it is not the difference that matters to Marx, it is the similarity of the conditions under which they sell, and the rewards that are thereby obtained. Thus 'work task', narrowly defined, is not a major part of Marx's conception; it is the exchange of labour for wages that matters. Differences in work tasks - or the technical division of labour - are reduced to a level of relative insignificance so that only the common act of 'work' remains. Thus all subtler occupational differences cannot count for social mobility unless some kind of false consciousness

intervenes. In the same way, the rewards, both material and non-material, which accrue to different occupations, are treated as being undifferentiated except at the level of division between the two main classes.

This reading of Marx is the one adopted by one of the very few recent attempts to tackle mobility from a 'marxian perspective' (Smith 1981). Smith defines mobility as that between 'wage and salary workers' and what he calls the capitalist class (although he is somewhat inconsistent in his discussion of the petty bourgeoisie, the self-employed, managers, and proprietors). He is able to show using local data on Memphis that the capitalist class is shrinking and that movements between the two classes are declining. The shrinkage he attributes to the monopolisation of capital (he excludes managers), and the decline in mobility to the consequent structure of class opportunity. Robinson and Kelley (1979) also treat mobility as a measure of how ownership and control over the means of production is inherited, again taking the idea of two antagonistic classes as the main message from Marx (see also Hindess 1981, and Johnson and Rattansi 1981).

Mobility has then received little attention because what most sociologists regard as movement is for the marxist contained within a single working class. Its relevance for marxism is to demonstrate the separation of the capitalist class from the working class and to show that that separation is increasing because 'real' mobility is small and decreasing. Mobility could in principle also be used as an explanation for the generation of false consciousness, but that latter notion has not been at the centre of recent debate. Because most mobility research does not focus on either the capitalist class or false consciousness, mobility analysts of whatever political colour can be castigated as bourgeois ideologues who spend their time and effort in the study of a non-problem, so diverting the attention of others away from 'the real issues'.

If there is any room for some kind of mobility analysis in Marx's conception, it is one which draws on his discussion of the internal sub-divisions of the major classes and the ways these evolve. In other words, we can identify social mobility of a structural kind, in which entire classes or strata are elevated or depressed, or incorporated as adjuncts to another class. Significantly, the bulk of Goldthorpe's reference to social mobility in Marx's writing deals with just this (9).

Although Marx in no way offers a systematic treatment of the subject, his limited comments do point to one of the major themes of the present analysis, changes in the occupational structure. It is on the wholesale creation and destruction of strata that he remarks (10). Interestingly, these strata are far more differentiated and smaller than the two major classes. They are identified in terms of occupational groups with specialist work task functions, as much as in terms of their place in the class struggle, and certainly much more so

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- (9) 'Significant' in the sense that according to the present argument, it could not be otherwise, but also significant in that attempting to rehabilitate social mobility into marxist sociology, Goldthorpe concentrates on structural mobility rather than other less palatable forms which represent a potentially greater challenge. There is a certain irony in this, because Goldthorpe's own mobility analysis often displays less interest in structural mobility than in exchange mobility.
- (10) Mackenzie has argued that Marx pays little attention to the new middle classes because he sees them as historically transitional and therefore not important as they will disappear (1982, 64). In contrast, Abercrombie and Urry concentrate on the creation of new strata, emphasising Marx's prediction of growth made in Capital. They do however note that 'just what the political significance of a non-labour class constituting one-third or perhaps one-half of the population' is left unstated by Marx (1983, 50). See also Mackenzie (1976) and Hodges (1961).

than in discussions of the bourgeoisie and proletariat. Their 'mobility' is a collective one, encompassing a whole category, rather than a mobility of individuals: the collectivity is brought into existence by new technological and capitalist forces, or displaced by the rigours of capitalist development. Paradoxically, this is one of the points to which many critics have objected, namely that Marx made insufficient allowance for the extent of middle class growth, and so misread the future lines of the class struggle (eg, Sorokin, 1927; Berle and Means, 1932; Burnham, 1941).

In contrast, mobility analysis has traditionally concentrated on individual mobility, and attempted to control for the effects of changing occupational structures (although see Parry and Parry 1977, 112). It has thus not taken on board, until recently, the potentially powerful insight that an expanded middle class offers mobility opportunities, because the new recruits are very likely to come from some other backgrounds at least in the first generation. This was something which Marx did not fully perceive (11).

To be fair to Marx, there are points in his work where he does seem to be aware of this phenomenon. In his discussion of recruitment to the expanded commercial office in Capital, Vol III, although emphasising that its ultimate effect is supportive of capital and damaging to wage-levels, he writes:

'The generalisation of public education makes it possible to recruit this line of labourers (office workers) from a class that had formerly no access to such education and that were accustomed to a lower scale of living' (Marx, 1959b, 354).

(11) Nor did the present writer light upon the idea as a result of reading the literature on capitalist society. At best one can say that while the general structure of these ideas has the potential for explaining social mobility, there is little direct treatment of the subject, and what there is has not been the direct inspiration of later mobility research.

Harris (in whose work the above quotation was located by the author) demonstrates convincingly that Marx expected and accounted for a very considerable rise in the 'dritte personen': office staff (12); commercial agents, such as buyers, sellers, and travellers; those involved in the calculation of prices, book-keeping, managing funds, carrying on correspondence; officials, parsons, professors, magistrates; soldiers, sailors, clerical employees, policemen, mistresses, clowns, and jugglers; artists, musicians, lawyers, physicians, professors, schoolmasters, inventors, commercial labourers, managers, salesmen, cashiers, and merchants. Why then is this new middle class ('new' in the sense that in much of Marx's writing, it was the capitalist class that was the old middle class between the landowners and the working class) not identified as a powerful historical force?

Harris explains this in two main ways. First, in understanding capitalism, it is to the dominant modes of production and class relations that the analyst must turn. Thus for example, the small-scale farmer or the worker on his own account are little more than an irrelevance: the fate of the petty bourgeoisie at the hands of the capitalist class will eventually tidy up such inconsistencies. Second, the newer middle class is also marginal, because its service

'does not incorporate itself in commodities and therefore, does not give rise to a surplus-product. It is unproductive labour which is performed outside the process of capitalist production' (Harris, 1939, 341).

(12) The slightly repetitive list is drawn from various sources in Marx's writing; see Harris (1939, 349, 352-3) for original references.

Unproductive labour is the type of labour which does not create new value in the form of a surplus product. It is not a matter of whether there is a physical product or not, but rather whether it contributes to an increased profit for the capitalist. It is the giving of more labour time than is received back in wages that defines labour as productive. All other kinds of activity create use-value, but not profit. Harris here seems to underestimate (in keeping with Marx?) the extent to which the new middle class is employed for profit, and therefore is productive.

This is a central 'point' in Marx's conception of modern capitalism. He regards most of the new middle class as marginal, because their labour has only use-value: one part of it represents a response to the capitalist class's drift towards a lavish lifestyle with a system of retainers to service their needs; a second part of it (the 'functionaries in trade and marketing', Harris, 343) is helping only the circulation of commodities, which is not the essential element in capitalist production; and a third part is employed by the state, which makes no profit, and is again merely an enabling mechanism for capitalist production. At the same time the survival of the petty bourgeoisie has been achieved by technological change which allows new markets to open up as temporary refuges before large scale capital takes over each new activity. There is then no systematic sociology of the new middle class (and therefore of mobility) in Marx's own writing because the middle classes are devalued.

Recent Accounts of the New Middle Class

The vacuum left by Marx has since been largely filled by marxist writers in the last decade. Despite many protestations on their part that Marx did in fact take account of the middle class, the

sheer volume of contributions to this debate is evidence that he did not provide a clear statement on the subject ⁽¹³⁾. The debate has centred around the problem of identifying which, if any, of the classic classes is the true home of the new middle classes. To take several examples, Poulantzas, addressing the question of political strategy in France, has argued that they are a fraction of the petty bourgeoisie. Carchedi, on the other hand, proposes that they perform some functions of both labour and capital, while Nicolaus sees them as a consumption class separate from but contributing to productive labour. Ehrenreich and Ehrenreich take the view that the class of professionals and managers have to be seen as a separate class in its right, distinct from previous classes.

If the present study were adopting a specifically marxist framework, it would be necessary to deal with this body of work in some detail, so that mobility into the new middle classes could be defined as upward, downward or sideways movements. As we are not tied to such a framework, the need for such an analysis does not arise, but it is nonetheless useful to consider briefly three features of these exchanges. First, what occupations are being talked about? Second, what criteria are used to distinguish between classes? And third, what explanations are used to explain the growth or decline of these classes (this being the most interesting element)?

(13) See for example Nicolaus, 1967; Poulantzas, 1973; Braverman, 1974; Carchedi, 1975, 1977; Wright, 1976, 1978; Crompton and Gubbay, 1977; Hunt, 1977; Walker, 1979; Edwards, 1980; Mackenzie, 1982; Abercrombie and Urry, 1983. What is striking about all of these contributors is that as soon as they discuss in concrete form any class other than the property-owning class, they use occupation to identify membership. Thus, even though their prime concern would seem to lead them in one direction, in practice they are tied to occupations and occupational structures.

Part of the disagreement between the leading protagonists can be traced to the level of discourse adopted. Because this has been mainly theoretical in nature, empirical reference points are sometimes hard to establish. Whereas Ehrenreich and Ehrenreich (1979) concentrate on professionals and managers, as distinct from other occupations, Poulantzas allocates senior managers to the capitalist class, and then combines the remaining administrators and professionals with hairdressers, foremen, entertainers and other wage-earning groupings. His initial statement on the nature of the new petty bourgeoisie immediately moves into a discussion of the theory of surplus value and class polarization (Poulantzas, 1975, 204-230). Similarly Crompton and Gubbay find it possible to discuss the middle ground of occupations in terms of 'structural ambiguity' without specifying which occupations they have in mind: their development later emphasises the proletarianization of technicians and clerks, rather than managers or professionals, which colours their account (1977, 171; 197-202). Wright's categorisation of the middle class in terms of ambiguous or contradictory structural locations pays less attention to technicians and clerks, although he does cover a wide range of occupations under his four groupings of upper managers, lower supervisors, small business men, and 'semi-autonomous wage earners'. This latter category is however not very satisfactory as it combines technicians, certain teachers, filling station owners, and other professionals because they are self-employed. (1976, 20-35; 1978, 63-88). Clerks are not part of the new middle class because they are non-autonomous, non-supervisory employees, a view shared by Baran (1957, 32-3).

The 'class identification' or 'boundary' problem (Hunt, 1977, 10; Mackenzie, 1982, 63) thus takes three forms. First, it consists of arguments about the 'top' and 'bottom' of the new middle classes: are senior managers in the working or capitalist class?

Second, it consists of (often implicit) emphasis on one or other sub-division, so that commentators often argue past one another. And third, it consists of confusion over the sub-divisions of the remaining occupations, often due to lack of concrete examples in the exposition.

However, this confusion is also due to the particular aspects in marxism to which a contributor connects his own argument, ie, to the criteria employed to distinguish between classes and to identify their essential character. As this is not central to the main themes of the present study, we shall simply indicate several of the approaches adopted. A number of writers share more than one such approach. As against most non-marxist accounts, which pay more attention to the empirical identification of each class, the theorists of capitalist society are concerned with how classes interact, and the part they play in the maintenance of the capitalist mode of production. Wright (for example 1978, 64ff), Carchedi (1977, Ch 1), Crompton and Gubbay (1977, Ch 9) and Bravermann (1974, Ch 2) all stress the importance of control and authority. On the one hand, control and authority are relations between classes, and on the other they constitute functions by means of which capitalist reproduction is possible. The latter two writers are more concerned with the control aspects and draw pessimistic conclusions about proletarianisation. Like Wright and Carchedi, Ehrenreich and Ehrenreich are also concerned with reproduction, but they pay more attention to the cultural and ideological function. The professional and managerial class through the division of labour has appropriated mental labour from the proletariat, creating mutual antagonism, and while similarly having different class interest from the bourgeoisie, this class is now indispensable to capitalism because of its major function in 'the reproduction of capitalist culture and capitalist class relations' (1979,12).

A more political criterion is advocated by Hunt et al (1977). In criticising economistic versions of marxism, they draw on Marx's view of the importance of political and ideological factors, and see one central question as being what role the new middle class will play in the class struggle. The middle class's historical role in the proletarian revolution helps to define its character and form.

Finally, Poulantzas (together with others such as Crompton and Gubbay) uses Marx's theory of surplus values to identify the 'true' place of the new middle class. A clear insistence on a distinction between productive and non-productive labour is used to mark off certain occupations as neither bourgeois or proletarian. This attaches the idea of occupation and class very closely to elements of economic thinking in Marx, which is somewhat restrictive (14).

Having sketched in some of the variation in conceptions of the new middle classes, we can now deal with explanations given for the growth of these classes in capitalist society. In general most writers have spent less time on this point, relying on either a commonsense view that the new middle classes exist and therefore are to be analysed, or on brief reference to some of Marx's own ideas. This can have slightly bizarre effects: despite his rhetoric that classes are

(14) One problem with this approach is that it forces contemporary economic activities, such as the greatly expanded public and commercial sectors, into a 19th Century manufacturing mould. It is not clear, for example, why Carchedi's definition of the collective labourer deals only with productive labour, or why Poulantzas restricts productive labour to the production of material goods: while these decisions may be consistent with earlier economic theory, they take little account of the volume of contemporary economic activity that is excluded, and thereby build in a complication for conceptualising class. Equally, it is not clear why the realisation of surplus value, either at the level of the individual enterprise or at the social level is diminished by the extension of circulation through the commercial chain, since at each level the value of the product is enhanced by distribution and retail agents. Nor is it an adequate answer to criticism of the productive/non-productive distinction that 'objections to it on the grounds that it is unrealistic, irrational or inconsistent are properly directed against capitalism itself' (Kay, 1979, 133).

created and take their being from the class struggle, Poulantzas offers very little concrete historical evidence to show how the new petty bourgeoisie have evolved out of struggle. His core explanation is that the logic of capitalist competition generates needs for new technical methods of production: the new technology is dependent on those who have high levels of scientific knowledge and others who control the more complex processes of production that become necessary. Poulantzas therefore illustrates three of the main themes in explaining the rise of the new middle class. At a basic level, he identifies the pursuit of surplus value as the driving force, while knowledge and control become the two functional foci of the new class.

To these can be added Johnson's argument that the growth of the state and its enhanced role in regulating and reproducing labour-power requires new functionaries whose position is dependent on the control of knowledge itself (1977). Ehrenreich and Ehrenreich make something of the same point, and also stress the reorganisation of the production process and the commodification of working class life as sources of the professional and managerial class. Like Nicolaus, they further note the need for a condition of surplus to support such a class, but not to the extent of adopting his view that its capacity for consumption is necessary for the continuance of capitalism. In contrast, Carchedi locates the key process in the need for control and surveillance in the work place in order to produce surplus value under monopoly capitalism. Finally Wright draws on the alternative tradition, the 'theory of industrial society' to highlight the effect of sectoral shift in industrial activity as the specific source of the new middle classes. We can thus identify both technical and exploitative forces as ultimate causes, with the processes of technical knowledge control, of production (commodification, consumption, and service), of ideological control (state regulation) and of control in the work places all being seen as immediate causes of an expanded middle class.

Abercrombie and Urry have recently given a more comprehensive statement of the causes of middle class growth based on four main developments (1983, 95-99). They start in the sphere of circulation with the growth in working class consumption power, arguing that this has generated new production activities. These entail the manufacture of more complex commodities, and the provision of new services, both commercial (eg, leisure) and social, as in the case of health and education. The organisation of these activities, as well as the tasks to be performed, call forth a new differentiated body of middle class personnel.

Their second area of development is in the sphere of production, typified by the growth of the service sector. This has been fuelled by the availability of capital, which can be used to meet the need to research markets and plan future investment in a sophisticated way, so establishing commercial services. In parallel, consumer services have expanded through technological innovation: whether as entertainment (computer games) or health care (computer diagnosis), the range of occupational opportunities in conception, planning, marketing and servicing are vastly increased. This overlaps to some extent with their third driving force, the faster turnover of fixed capital. Due to advanced technology, high rates of obsolescence create technical and research employment, while the combination of high investment and rapid obsolescence puts a premium on forward planning.

The final source of the new middle class lies more directly in the field of class struggle. The success of working class movements like trade unionism provokes an apparatus of managerial and state employees whose function is to contain the increasingly professionalised forces representing the working class. The expansion of the state is a response designed to dominate the 'sphere of reproduction'.

These changes yield not a single class, but a category of labour with complex class functions in a wide range of activities and a

variety of production settings and small capital units. They may be differentiated by virtue of the four sources of changes that brought them into being, but they share a common feature in possessing knowledge and educational qualifications (although see Abercrombie and Urry's reservations about credentialism, 111-12). The sub-sets of the new middle class are capable of entering into class struggle with each other, as well as against other classes: their situation is essentially fluid, so that any discussion of their role must take account of historical processes. For example, although Abercrombie and Urry stress the expansion of the middle class, by which they actually seem mainly to mean the professional and managerial class, they accept the thesis of the proletarianization of white collar workers provided it is seen as a long-term process (1983, 118).

This brings us to one of the other major themes in the theory of capitalist society, proletarianization. In the foregoing discussion this was at times somewhat arbitrarily ignored, for reasons of simplifying the exposition (for example in presenting Poulantzas' ideas). However, the argument that the middle classes are expanding has almost as strong a counter-argument that the constituent occupations are undergoing deskilling and increased control in the technical process of production, a point not irrelevant to our earlier claim that different writers have often concentrated on particular fractions of the middle class to the exclusion of others. The proletarianization thesis is mainly concerned with production and control, and can be presented largely through a brief discussion of Braverman and his critics.

Technology and Occupational Change

In contrast to the theorists of industrial society, who have stressed the creation of new and demanding occupations and the general up-grading of skill levels in modernisation (see below Chapters 3 & 5)

several theorists of capitalist society have in the last few years dwelt on the thesis of labour deskilling. Braverman's 1974 Labour and Monopoly Capitalism is a key text here, while the control aspects of this process have been developed by Marglin (1974), Clegg and Dunkerley (1980) and Salaman (1979). It is the former which most concerns us here, but the other contributions are mentioned to provide a proper representation of the argument in its entirety.

Braverman starts with the paradox that modern work is said on the one hand to require 'ever higher levels of education, training, the greater exercise of intelligence and mental effort in general' while on the other hand, it is said to be 'mindless , bureaucratized and alienating' (1974, 3-4). Rather than welcoming the division of labour as did earlier writers, he regards the sub-division of work into specialist and unskilled tasks as a retrograde step. The effect of Scientific Management was

'to strip the workers of craft knowledge and autonomous control and confront them with a fully thought-out process in which they function as cogs and levers.' (ibid 136).

The result is an increase in control by the employer, a reduction in discretion and autonomy on the part of the worker, and the further alienation of the work force. The subsequent rapid advance of science and technology to a central place in the operation of monopoly capitalism did nothing to reverse this process of de-humanization and deskilling because the new technological processes were not only 'Taylorised' into trivial work inputs from the outset, but also demanded less labour per se. As machines become more sophisticated, the need for skilled operators is reduced.

Braverman reviews each of the major categories of occupation in turn. Skilled manual work, in the sense of craft labour, is the centre piece of his argument, because it has existed throughout the hundred or so years with which he deals. Drawing on a wide range of sources, he demonstrates how craft labour has been largely replaced by

workers who, while retaining craft titles, in fact neither have, nor are called upon to use, craft skills. Office workers, being a relatively recent phenomenon of the twentieth century have been recruited from the ranks of women, and their tasks almost from the outset have been devised on scientific management lines. Braverman regards the semi-skilled workers as merely a census statistician's creation, having no basis in genuine task analysis, and virtually indistinguishable from 'unskilled' labour. The ranks of management are also to be regarded with scepticism since they include many occupations which in fact discharge little in the way of truly managerial duties. The 'up-grading' of occupations in this century is seen as an illusion.

Although Braverman's view was at first received favourably, it has since attracted a number of criticisms (see Wood, 1982, 12). Braverman is over-dependent on the general applicability of Taylorism, whereas the complexity of skill and work tasks makes it difficult to treat deskilling as a unitary process (King et al, 1981). What counts as skill is not a given but a socially-constructed phenomenon, while the process of deskilling may not only start from a historical position where the artisan is not the typical worker, but will take different forms in the course of management struggles with organised labour (see the contributions of Elger, Penn, Little, and More in Wood, 1982, and Edwards, 1979). The use of skills may vary both geographically between regional elements of an enterprise, while employment in the state apparatus where different imperatives operate limits the extent to which American production and commercial situations can be generalised to the whole of modern capitalism (Abercrombie and Urry, 1983, 57-58).

Despite these several limitations, it is still worth asking whether any part of his argument applies to Britain. Almost all of his examples are drawn, not unnaturally from his own country, namely the United States. While certain similarities exist between America and this country, can we assume that the same pattern applies to Britain?

For one thing, this country has not experienced the waves of peasant immigration that America has, while a different imperial role, earlier industrialization, and a stronger trade union movement are all plausible potential reasons why occupational change could take a different form in Britain. It must be said that there is some evidence that Braverman's argument can be applied to Britain. He himself quotes Lockwood (1958) on the black-coated worker in his own support, while Davies has recently reported deskilling in three samples of craftsmen, steel workers and office staff (1979, 175). Crompton, in an explicit reference to Braverman and social mobility, claims that changes in clerical work have not just degraded the clerk, but that some apparently managerial employment has been devalued, since it consists only of what was previously clerical work. She makes a parallel case for draughtsmen, and to a less extent, for computer-related jobs (1980, 118-9).

On the other hand, as Goldthorpe comments in his reply, the relative lack of general evidence over large numbers of occupations probably indicates that there is only a small number of exceptional cases (1980a, 122-3). Gallie, in discussing large scale, high automated plant, identifies an early period in which there was 'specialisation of the work task, with its concomitants of a sharp reduction in skill levels', but concludes that 'automation reversed the trend towards an ever-increasing division of labour'. With labour costs now a relatively much smaller proportion of total costs there was less need to extract so much from the labour force (Gallie, 1978, 7-9). Jones (1982) and Penn (1982) have shown how in engineering and textiles workers were in some cases even able to enhance their skills. Prandy et al (1982, 182) are also sceptical about deskilling among white collar workers. And Roberts, after discussing the deskilling thesis, concludes that on the basis of British studies

'it is doubtful that an aggregated impression would justify talk of a wholesale degradation of manual work.' (Roberts, 1978, 45).

While we cannot produce evidence on job content, it is possible to examine whether new, relatively more skilled occupations have been created this century, to balance any degradation of existing jobs, and this is done in Chapter 5.

In the meantime, Braverman's thesis poses three kinds of problem for social mobility analysis. In the first place, his argument that the work tasks of any given occupation have changed means that historical comparisons - son's occupation with his father's - must be highly suspect. Does it mean the same thing if father and son were both 'skilled manual workers'? If the occupation has been de-skilled, does this depress the position of the occupation in the occupational hierarchy? For Braverman this is not a problem, since following Marx he regards all of these non-capitalist class jobs as proletarian. But for the mobility analyst who believes such a crude categorisation is too great an over-simplification, Braverman's argument is a further facet of the basic problem of historical comparison. A period which has seen the demise of the horse-drawn omni-bus driver and the domestic servant and the rise of the computer programmer and the television producer (and for that matter, the professional sociologist) contains so much occupational change as to pose a threat to the basic operational approach of occupational mobility. What Braverman's work does is not just to add more evidence of such changes, but to show it applies throughout the occupational structure, and that any hierarchical ordering of occupations over a period of half a century may well be subject to distortion.

The second problem which Braverman poses is one central to this thesis, namely how far is it true that there has been a change in occupations such that an increase in upward mobility is possible.

According to Braverman, no such change has taken place: most of the alleged new middle classes are in fact middle class in appearance alone. The new occupations are as proletarian as any of the deskilled manual jobs. His evidence on office work is very strong on this, but less so for other middle class jobs: for example, his census data are somewhat undifferentiated. Further discussion is obviously desirable, but it must wait until we have seen what the rival theory of industrial society has to say on the matter.

Braverman's third problem is a conceptual one, which takes us back to our initial comments on class and occupation. His work is motivated by a deep humanist concern with the plight of the worker, not only exploited by the capitalist but controlled by him down to the minutest level of task performance. Thus questions of autonomy and alienation assume a major importance in how he conceives of an occupation. As Dunkerley has observed,

'the working class is involved in the execution and not the conception of tasks. The working class is controlled; the middle class, as agents of capital, control the labour process.' (Dunkerley 1979, 15).

It follows that deskilling is not just task-specific degradation, but deals with patterns of relationships; authority, seniority, superordination, autonomy. It is here that Braverman's thesis comes closest to other accounts of proletarianism, like those of Carchedi, Baran and to a lesser extent, Wright. Therefore the degradation of the alleged middle class or any up-grading of skill levels must be measured not just in terms of formal titles or qualification, ie, mobility studies using survey data cannot provide a complete answer. This difference of emphasis is not just a matter of technique, it is a question of which dimensions of class identity receive most attention, and therefore appear to be pre-eminent, i.e., it is also a theoretical question.

Indeed, it would be more accurate to say that the differences arise out of fundamental assumptions about the world. The idea of

deskilling and technological control under monopoly capitalism is based in a critique of capitalism, whereas the notion of technology as creator of ever new (occupational) opportunities draws - as we shall see in the next chapter - on the theory of industrial society. Much of the debate about the role of technology has been carried out in the literature dealing specifically with organizational theory rather than with wider issues and not connected with mobility research. For example, some writers have stressed the pre-eminence of technology, such as Sayles on work group types (1958) or Woodward on management structures (1965). Others, like Clegg and Dunkerley (1980) have argued that the presentation of technology as a neutral, rational, progressive force serves the ideological function of legitimating not just increased managerial control over the worker (in line with Braverman's thesis) but also the continued drive to profit maximisation.

Following Marglin (1974) they suggest that

'the most efficient technology (in terms of the maximum production) will be chosen only if it is compatible with securing the maximum control over worker behaviour. The corollary of this is that the attempt to gain greater control may result in a less efficient or productive technological system being employed.' (Clegg & Dunkerley, 1980, 343).

Even though they do not substantiate this claim with empirical evidence, their orientation is important because it so directly challenges the notion of technology as simple and unresistable 'efficiency'. For them, technology and work are an aspect of class relations: in most mobility analysis, drawing as it does a different theoretical tradition, occupation is used only as an indicator of class position. The alternative theoretical framework is discussed in the next chapter.

CHAPTER THREE

OCCUPATIONS IN MODERN SOCIETY:II The Theory of Industrial Society

The theory of industrial society differs from the theory of capitalist society in the pre-eminence it gives to the processes inherent in production based on a complex technology. The essence of its argument is that modern society is a unique form, not just because it has at its disposal this technology, but also because the kinds of social organisation which are compatible with high technology represent a distinctive set in their own right. Therefore an explanation of industrial society must be based on an understanding of its particular characteristics, and take account of the logical imperatives that are part of a science-based society. Some writers have stressed the rationality of such societies and their superiority in terms of their efficiency in providing material rewards for their citizens. Others have interposed value systems as the connection between technology and social structure and, in a more ideological vein during the later fifties and early sixties, argued for the moral superiority of (American) pluralist democratic industrial society over other social orders. More recent versions have used the label of 'post-industrial' society to identify the way in which control over knowledge, and the operation of a service economy, lead to new political and class allegiances. Thus the pursuit of profit and its consequent exploitative class relations which are the pivots of capitalist society theory, are replaced by the rational, neutral forces of technology as the central common core of theories of industrial society.

What is Industrial Society?

One of the peculiar features of the theory of industrial society is that it contains relatively few precise statements of what an industrial society is actually like. There are some discussions of

cases, which indicate that the society under analysis is industrial (1), while most contributors deal in a general way with industrialisation as the process which gives rise to industrial society. But these provide only implicit statements about industrial society per se, which tend to be diffuse and unsystematic (2). Not surprisingly, there is disagreement over which nations fit the bill: Lenski, for example, lists twenty-five 'selected' industrial societies including Spain, Ireland and Greece as 'marginal cases', in 1967. Elsewhere he lists twenty-seven cases for 1964, based on annual per capita coal equivalent consumption (Lenski, 1970, 347, 325-6). Holt and Turner meanwhile assert that on 'any commonly held definitions' there are only eight to twelve industrial societies in 1970 (Holt and Turner, 1970, 10). Again, Kumar in a slightly more elaborated model uses Kahn and Wiener's data to propose that at least eighteen nations are already in the industrial stage judged by per capita income; and that another forty or fifty will reach the 'mature industrial' or 'mass consumption' stages by the end of the century (Kumar, 1974, 352).

(1) For example, Touraine's account of France in the 1960s (Touraine, 1974).

(2) Aron's own questions in The Industrial Society still go largely unanswered:

'How are we to define industrial society? Is the term appropriate? Is there not already such a thing as post-industrial society? Where exactly, at the present moment, do the essential differences between the two types of society occur, and how significant are these differences? ... Where does the so-called industrial society begin and end? From what point are we entitled to call a society industrial? None of these questions admits of a categorical answer' (Aron, 1967a, 97, 105).

These latter views all operationalise the concept of industrial society in economic and technological ways, but this represents only one part of the industrial society idea. It is the social consequences of such technologies that have interested the sociologist. Thus we find Cotgrove's survey of the field concluding that industrial society can be contrasted with 'traditional' society as having

'experienced a demographic revolution with a sharp decline in both birth-rate and death rate, a decrease in the size, scope and pervasiveness of the family, an opening up of the stratification system with the shift from ascribed to achieved status, a levelling of culture with the development of mass communications and mass education, and the secularization and bureaucratization of society ... The increasing division of labour which characterizes mechanization, and the organization of the labour force in factory production is normally accompanied by work relations which are functionally specific (confined to specified duties), impersonal, and affectively neutral (based on contractual relations rather than personal loyalties)' (Cotgrove 1967, 271-2).

Underlying these changes is the central force of modern science, as most writers have emphasised.

'Science and technology have made it possible for 3 billion human beings to live on this earth, for the standard of living to rise from year to year in advanced countries ... The qualitative difference between present-day and earlier science and technology is obviously the indispensable precondition of all the other features usually attributed to modern societies: the lengthening of the life-span, the steady increase in national output, the predominant and at times obsessional concern with production and expansion, the creation of an artificial environment for human life, vast labour and administrative organizations, specialization, intellectual and social rationalization, etc. It would be easy to show that none of the phenomena that observers consider essential to modern society would be possible without the development of science and technology' (Aron, 1967a, 99).

Although Aron is more explicit in his concentration on the role of science, he is not particularly exceptional. As Moore has concluded in his survey of theories of modernization,

'It is reasonably proper, though conventional, therefore, to consider modernization in terms of economic growth. In fact, we may pursue the convention further and speak of the process as industrialization. Industrialization means the extensive use of inanimate sources of power for economic production, and all that that entails by way of organization, transportation, communication, and so on ... The studies of social change that take industrialization as a starting point are extremely numerous ' (Moore, 1963, 91-2).

He goes on to list much the same set of characteristics as Cotgrove, adding changes to the institutions of property, labour and the state which have resulted from industrialization (seen as a technical process rather than in its more general sense of encompassing its associated social concomitants (ibid, 94-105)).

A convenient summary of these processes ⁽³⁾ is to be found in Kerr et al (1973, 56). Under the heading of 'The Logic of Industrialization' the authors offer a simple chart which is reproduced here as table 3.1.

Fig. 3.1 The Logic of Industrialization

Work Force	Increased skills and widening range of skills. Increasing occupational and geographic mobility. Higher levels of education more closely related to industrial function. Structured work force.
Scale of Society	Urbanization and decline of agriculture as a way of life. Larger role for government.
Consensus in society	Increasing ideological consensus in a pluralistic society.
World-wide industrialism	Industrial society spreads out from the centres of advanced technology.

(3) Other similar general statements can be found in Swanson, (1971, 137-8) and with an emphasis on class relations and organizations, in Scott (1979, 17-8). An interesting comparison based on Parsons' pattern variables can be found in Banks (1964).

In stressing the characteristics of industrial society as a type, one is implicitly adopting a weak form of convergence thesis. Kerr et al are of course exponents of a much stronger form of this argument that societies tend to converge to one social and political order because of their common technology. Even if pre-existing conditions obscure the underlying pattern,

'the logic of industrialization prevails eventually ... Each industrialized society is more like every other industrialized society - however great the differences among them may be - than any industrial society is like any pre-industrial society' (ibid, 283).

At risk of undoing this package so recently constructed, it must be said that there is no simple homogeneity of ideas underlying the summary. Aron has attacked as superficial those accounts by statisticians and economists which rely on per capita income levels, proportions employed in non-agricultural industry, or percentages living in towns or receiving an education. Cotgrove observes that traditional forms of social organization (eg, labour and production) can co-exist with modern forms. Kerr acknowledges that there are many different starting points and different roads for a society's journey through industrialization. And Moore is critical of theories of social change which posit a series of crude evolutionary stages, which ignore the interaction of structural elements during industrialization, and which assume that there is a final static stage of post-industrialization as the end product of the industrialization process (4).

(4) See respectively, Aron 1967a, 54-5; Cotgrove, 1967, 272; Kerr, 1973, 298; and Feldman and Moore, 1962, 106.

Again, some of these accounts have been heavily ideological, reflecting the political climate of the Cold War, and particularly the McCarthy Era of the 1950s. A concern for stable pluralist democracy is evident in the work of Rostow (1960), Kerr et al (op.cit.) and Lipset (1960). All three contain versions of industrial society which are heavily influenced by an American model, and as Aron has argued (following Vilar, Marcuse and others) even less political accounts also to some extent serve to 'camouflage capitalism by calling it industrial society' (1967, 94-5). This is because there is both a change in terminology, and a shift of focus from class relations and mode of production to the role of technology. Aron sees this for the most part as less an attempt at ideology than a genuine effort to encapsulate the unique spirit of Western Societies, that is to say to come to terms with the importance of science for such societies. It is science that brings us that later variant of the basic theory, post-industrial society.

Post-Industrial Society

It is not important for present purposes to dwell on the differences between 'industrial' and 'post-industrial' society. Both conceptions share the central concept of a science-based society, and despite differences of emphasis, there is a great deal of overlap. For example, Touraine's conception of post-industrial, 'technocratic', or 'programmed' societies 'retains some characteristics of these earlier societies' (Touraine, 1974, 3), while Bell accepts that 'the post-industrial society is a continuation of trends unfolding out of industrial society' (Bell, 1974, 115). Indeed, Bell has some fun at the expense of scholars who, like himself, have adopted the prefix 'post' to identify contemporary developments (ibid, 51-58). While there may be some case for clarifying the two types of society for the sake of intellectual tidiness, it is of more interest to see how these later writers have extended earlier interpretations of twentieth century society in the West.

The purpose of Touraine's nomenclature is not to suggest that in some magical way production and wealth have reached such levels that the post-industrial society

'can abandon concern with production and become a consumer and leisure society ... The type of society we live in is more "driven" by economic growth than any other. The individualized features of private life, as well as local societies and their ways of life have been profoundly affected - even destroyed - by ever-growing geographic and social mobility, by the massive diffusion of information and propaganda, and by broader political participation than ever before. Precisely these factors make it impossible for exclusively economic mechanisms to be maintained any longer at the centre of social organization and activity' (op cit, 5).

It is the connection between production and knowledge, and the way in which this dominates the rest of society that prompts Touraine to talk about a 'programmed' society: 'All domains of social life - education, consumption, information, etc - are being more and more integrated into what used to be called production factors' (ibid, 5). The new domination reduces man to an alienated state, where his entire life is conditioned by the ruling class: the new lines of class conflict therefore lie not between capital and labour, but between the structures of economic and political decision-making and those who are reduced to this 'dependent participation'.

In keeping with the importance of science in such a society, the new ruling class consists not of capitalists, but of high level technocrats. 'Technocrats are not technicians but managers, whether they belong to the administration of the State or to big businesses' (ibid, 49-50). Nor are they a unitary group: some favour capital accumulation, while others propagate public consumption, and alliances continually shift. Membership is defined by

'knowledge and a certain level of education ... the education of the top level tends to be independent of our specialized body of professors and is largely provided for by members of the elite ... A hierarchical continuity among bureaucrats (middle management) and technocrats may appear to exist but it is a rare case when the members of a great organisation cannot recognize the line that separates them'. (ibid, 51-52).

The technocrats may suffer gains or losses over time, but they do not lose their position, either individually or as a group. Secure in their jobs and income, a social group is formed which while not being homogeneous, nevertheless develops a degree of self-consciousness, a distinctive life style, and which 'exercises considerable control over recruitment' (ibid, 53).

Beneath them the bureaucrats operate the elaborated systems of communication and control which are necessary for the operation of a planned, technological economy - and society. They are not a 'service class' in Renner's meaning: functionaries without any discretion operating a bureaucracy in a narrow Weberian sense. These bureaucrats are

'adept at change, agents of progress beyond doubt, but also often careerists, vain, distrustful, absorbed in their subtle stratagems and their desire to re-inforce their own importance by holding back information, by fostering their own prestige in every way possible, and by defending the internal demands of the organization in opposition to its external purposes'. (ibid, 58).

'Professionals', particularly in higher education and health, are the marginal category, while 'experts' like engineers, accountants, lawyers, psychologists, G.P.s and teachers are on a par with the bureaucrats (ibid, 64-66).

Besides them, and in Touraine's eyes, contrasted to them are the technicians: technical workers, designers, higher ranking office workers, excluded from and resenting the bureaucratic game, weak in authority, influence or negotiating power, and different from the proletariat only in that their jobs are less repetitive, monotonous, and restrictive.

This way of representing Touraine's idea emphasises the elements of occupation and class, and plays down his analysis of the student movement, and the cultural and political life of France in the 1960s, for obvious reasons. As well as being more relevant to our main theme of mobility and stratification, it serves as a corrective to any tendency to see the theory of industrial society as merely an ideological tool, concerned only with consensus, affluence, and rationality. While Touraine rejects sociological analysis based on the idea of two basic classes, or on the interplay of the traditional production processes, land, labour and capital, he also reflects the suggestion 'that advanced industrial societies no longer have class structures' (*ibid*, 81-82). His analysis shows how the occupational character of a science-based economy changes the nature of class conflict, both by redrawing class boundaries and by shifting the locus of the conflict. It is true, as Kumar (1976) has observed, that Touraine does not elaborate on all aspects of his view of class - such as the proposal that the educated class is internally divided - but the notion of conflict is part and parcel of his analysis.

By comparison, the position adopted by Bell (1974) is somewhat more 'optimistic', in that he sees the new groupings and their over-riding concern with theoretical knowledge as providing a basis for a different kind of social integration and harmony. He identifies five 'dimensions' or 'components' of the term post-industrial society.

1. Economic sector: the change from a goods-producing to a service economy;
2. Occupational distribution: the pre-eminence of the professional and technical class;
3. Axial principle: the centrality of theoretical knowledge as the source of innovation and of policy formulation for the society;

4. Future orientation: the control of technology and technological assessment;
5. Decision-making: the creation of a new 'intellectual technology' (ibid, 14).

If this sounds much like the theorists of industrial society in the previous section, the distinctiveness of Bell's writing is that he argues his five dimensions are each much further advanced as tendencies than in industrial society, and that they will continue to become even more accentuated in the future.

Thus in the economic sector, developing the work of Clarke and Kuznets, he distinguishes between the industrial society's expanding service sector - retailing, commerce, transport, communication and utilities - and the post-industrial services of health, education, research, and government. On the occupational dimension it is the growth not of skilled or technician labour, but that of the 'new intelligentsia' of scientists and technical experts, whose command of theoretical (as opposed to sophisticated empirical) knowledge requires at least a college education. In contrast to industrial society's development by haphazard technological innovation, post-industrial society is orientated towards planning and the co-ordination of change, while problem-solving by means of rules-of-thumb or intuitive judgements is replaced by the application of systematic and complex rules, typified by computer algorithms. Although Bell sees the historical roots of these processes, he argues that for analytical purposes post-industrial society can be seen as a different type based on the cumulation of these elements. In industrial society,

'the chief economic problem has been the problem of capital ... the major social problem that of industrial conflict between employer and worker. To the extent that the investment process has been routinized and the "class conflicts" encapsulated so that the issue of class strife no longer acts to polarize a country around a single issue, those older problems of an industrial society have been muted if not "solved".

In the post-industrial society, the chief problem is the organization of science, and the primary institution the university or the research institute' (ibid, 116).

The 'social problem' becomes one of control of decision-making, of bureaucratization, and pluralistic competition in the political arena.

This image of a society in which knowledge and rationality reign supreme, despite the persuasiveness of Bell's argument, has attracted a number of critics. We have already noted in the previous chapter the arguments of Marglin and others to the effect that the kinds of technology developed and the rate of its introduction owe more to control (and profit) than to their efficiency. We might add, following Kumar, that the 'war economy' of the 1950s and 1960s has done more to stimulate research (in terms of increasing its share of GNP) in America than any new interest in fundamental knowledge for its own sake. Post-war economic development has owed more to the further exploitation of existing knowledge than to original research. The idea that

'post-industrial society, increasingly influenced by the scientific and professional ethos, will follow a 'sociologizing' mode, concerned with non-market communal planning in the direction of maximum welfare'. (Kumar, 1976, 352)..

seems even more preposterous in Britain under the Thatcher Administration than it did in the mid-seventies.

Nonetheless, Bell has identified - if exaggerated - an important aspect of post-industrial society in its economic and occupational shifts. Kumar seems to imply that major changes in the focus of economic activity (with increased planning and future orientation) and in the occupational structure, have no effect. But it has been axiomatic in mainstream sociology that a man's occupation relates to his whole social persona. That means that changes in occupational structure involve other social changes, so that Bell's analysis merits further consideration, not least in terms of occupational change and its effects. However, most of Bell's evidence - and there is a good deal of it - refers to American society, it is not discussed here, although some parallel British evidence is reviewed in a later chapter.

For convenience, we conclude this section on post-industrial society with Galbraith, whose concept of a 'new industrial state' (1967) is another variation on the industrial/post-industrial theme. Galbraith's analysis includes the modern corporation in the set of characteristic features: large industrial organisations are at once possible because of technological production and national systems of administration, and also promoters of the values and the system which generate further technological advance and create employment for technical experts. With the economy dominated by very large and complex corporations, and capital drawn from numerous sources, the capitalist no longer controls his investment. Professional managers take his place, and with ever-increasing knowledge and specialisation, a new cadre of technical experts become indispensable to the corporation. This 'technostructure'

'extends from the leadership of the modern industrial enterprise down to just short of the labour force and embraces a large number of people and a large variety of talent'. (Galbraith, 1967, 56)

Their growth in number (and, paradoxically, their continued scarcity value) enables them to play an ever more influential role both in and outside of the corporation: their values are more liberal than those of the old-style capitalists: a new industrial state replaces the old.

The parallels with Bell's new intelligensia, and Touraine's technocrats and bureaucrats, are obvious. Bell, it is true, attributes less to the role of modern capitalism as the cause of this change, while Touraine makes an important distinction between the upper echelons and the subsidiary level which is somewhat less clear in Galbraith's writing. But all three identify technology and the separation of ownership and control as having advanced to such a point that previous patterns of class relations no longer apply. If one wanted to force a distinction between post-industrial and industrial formulations, it would have to be that the latter have been more concerned with marking off modern society from pre-industrial forms,

with the use of inanimate power, and with the nature of urbanism, affluence, and large-scale organizations. However, for present purposes this is unimportant, and for the remainder of this chapter the term 'industrial society' is used to include its post-industrial variants. This is permissible, if only because the various contributions share a similar style of exposition, many of the same intellectual themes, and say very much the same things about occupations.

Occupational Change.

We also propose to use the term 'occupational transition' to identify the kind of occupational change - ie, the expansion of jobs requiring technical expertise - associated with the development of industrial society. The derivation is from 'demographic transition', the changes in demographic profiles which are also associated with industrialization. Occupational transition is a convenient way of specifying particular changes: it is not a theory which explains those changes, nor is it a precise statement about the scale of those changes. The sociological significance of occupational transition, as against the form it takes, is logically a secondary question, and one which is taken up later. Here we are first concerned to see in more detail what kinds of occupational transition are generally said to occur ⁽⁵⁾. Despite at least one argument to the contrary (see Jones, 1977), it is possible to identify a core of assumptions about the forms that occupational structures take in modern society as a result of the industrialisation process.

One of the most useful sources in this respect is W.E. Moore's Social Change (1974). Despite being a relatively small book (in both its 1963 and its revised 1974 editions) it has been fairly

(5) Many of these accounts are lacking in historical accuracy, operate with imprecise occupational categories, deal inconsistently with rates of change, fail to account for deviant case, and lack specification of causal relationships. For a fuller discussion, see Payne, 1977a, 1977b.

influential, not least because its brevity, coverage and precision have made it a popular undergraduate text, particularly in America. These same qualities explain its role here as representing a central tendency among other writers on the theory of industrial society. As Moore writes in the preface, the revised edition was designed to be

'selectively attentive both to the critical comments that have appeared in the sociological literature, and to the new approaches that have appeared here and there. Yet ... I see little that adds to our precise and general knowledge of patterned sequences' (1974, ix-x).

With this in mind, he has omitted descriptive studies in search of his prime goal of compact, dense exposition (*ibid*, x).

From Moore's work, ⁽⁶⁾ it is possible to draw eight detailed propositions about occupational transition. One of these - that there will be increased mobility both within careers and between generations - is left for discussion in a later chapter. Three of the others can be regarded as general propositions:

1. All economic operations - such as the subsistence agricultural sector - are incorporated in the national market economy.
2. There is a change of economic activity from primary to secondary, and secondary to tertiary, industrial sectors.
3. New occupations are created, and differentiation between occupations increases.

The remaining four propositions deal more specifically with occupations.

4. The proportion of workers in agriculture will decline.
5. An up-grading of minimum and average skill levels will take place, resulting in a structure with relatively few unskilled workers and 'the vast majority' of workers in various middle categories.

(6) In particular, see Moore, 1974, 104-6. Obviously, there is far more to Moore's theories than the limited subset of ideas on occupations with which we are here concerned.

6. There will, nonetheless, be a shortage of skilled workers.
7. This will be accompanied by an increase in demand for professionals of all categories, and in particular doctors, engineers and experts in organisation.

These propositions apply to countries both during industrialisation and in contemporary industrial economies (Moore, 1974 104-5).

Moore is not alone in adopting this view of occupational change, although in contrast other writers have been less succinct (Kerr et al's work (1973) is less easy to abbreviate into a brief coherent statement!). The same basic approach can be seen in a variety of writers: Appelbaum's account closely resembles that of Moore, but with greater emphasis on convergence (1971, 45-50). Weinberg has commented that 'there are implicit criteria of convergence in many discussions of industrialisation' (1969,4). Aron says that

'all industrial societies have similar characteristics from this point of view. The proportion of intellectual or semi-intellectual occupations inevitably increases in industrial society. More and more supervisors, engineers and people with technical qualifications are needed. Everybody must be able to read and write. Thus two of the occupational categories become larger and larger, the technical intelligentsia who direct the industrial workers and the non-technical intelligentsia, or those whose technical qualifications are mainly literary' (1967b, 23-4).

Galbraith, Bell, and Touraine, as we have seen above, and Crossland (1956), Hoselitz (1954) and Trieman (1970) are other examples, while Kerr in particular stresses the technological imperative:

'the same industries in different countries use roughly similar technologies with roughly similar proportions of workers in jobs of varying skill and wage levels' (1973, 248).

Even Kerr's critics have largely operated within his framework of assumptions about the occupational structure of industrial society: among the contributors to the well-known Sociological Review Monograph edited by Halmos, only Platt addresses herself directly to this

question (Platt, 1964). This is because most of the critical contributions - including those of Lockwood, Goldthorpe, Banks, Worsley and Marshall - were concerned with the consequences for stratification theory of the changes in occupations, or with the dynamic force behind such changes. They were not concerned with the actual changes themselves. As Garnsey has observed of this collection of writings,

'while the predominance of the economic and technological factors in determining the distribution of rewards and opportunities in industrial societies has been disputed, the notion that "the structural and functional pre-requisites of a developing technology and economy result in the occupational distributions of advanced societies being patterned in a fairly standardised way has not been seriously called into question. Goldthorpe was concerned rather with the corollary of this thesis ... (he) does not actually challenge the notion that in its main features a certain occupational structure is an invariable and inherent feature of industrialization' (1975, 439-40).

Indeed, it is almost impossible to read an account of social change written in the 1960s and early 1970s without encountering this basic assumption about occupational transition. It was particularly influential in work on education and social mobility, where it was central to the work of Glass (1954, 24); Floud and Halsey (1958, 169-70; 1961, 1-2), and Westergaard and Little (1964, 302), as we shall see in Chapter 9. However, there has been until recently relatively little active investigation of the form of changes that have been assumed to take place. Clearly a necessary step is to investigate the nature of occupational transition in Scotland, and this is done in the following chapter.

That analysis will also look at the variations in occupational transition which different contributions to the theory of industrial society have proposed. Touraine's distinction between technocrats and bureaucrats, for example, is less concerned with the middle of the occupational hierarchy, while Bell's 'new intelligentsia' stresses the top and Galbraith's technostructural model covers a much wider field. Within the limits of available data, we need to show how

far these versions of occupational transition have taken place as part of our attempt to understand the framework in which mobility takes place.

Sectors and Occupations.

Bell is somewhat more explicit on occupational transition than others, linking it firmly to sectoral shift between industries in line with his concentration on knowledge rather than technology.

'The spread of services, particularly in trade, finance, education, health, and government, conjures up the picture of a white-collar society. But all services are not white-collar, since they include transportation workers and auto repairmen. But then, not all manufacturing is blue-collar work. In 1970 the white-collar component within manufacturing - professional, managerial, clerical, and sales - came to almost 31 percent of that work force. The change-over to a post-industrial society is signified not only by the change in sector distribution - the place where people work - but in the pattern of occupations, the kind of work they do' (Bell, 1974, 133-4).

Bell argues that the 'dramatic' change in proportions of white-collar workers is 'somewhat deceptive' because most white-collar workers have been women and

'in American Society, as in most others, family status is still evaluated on the basis of the man's job' (ibid, 134).

It is therefore only the change to men's occupations that is significant.

This seems a dubious kind of argument. Even if we accept that men and women work for different reasons, that work has a different meaning for them, and that they are employed in different jobs, this is an argument for analysing them separately, but not for ignoring female employment. It is the expansion of white-collar work that is the characteristic of industrial society, not the gender of those who fill the new occupational niches. That is a secondary

problem. Perhaps it is a further and as yet neglected characteristic of industrial society that a higher proportion of its jobs are done by women and that a higher proportion of women do waged work (7). This in turn poses the question of why it is the less prestigious jobs which go to women: is this an inherent feature of industrial society, or just a transitional pattern of adjustment? Again, if the female labour force is mobilised into the market, how does this affect the chances of a male in seeking employment. And does the status of white-collar work, or the husband-based American family status system, remain unchanged? It is implicit in Bell's work that when more men do white-collar work it matters: why else does he dwell on the growth and role of the 'new intelligentsia'?

The present author does not pretend to have answers to all of these questions, although some further discussion of them can be found elsewhere (Payne et al, 1983). The most immediate of these issues for an analysis of social mobility is how should the opportunity structure for men be conceptualised?

While it is true that women tend to be concentrated into separate occupational categories from men (8), if one is to argue that changes in demand for labour generate new mobility flows, then on the face of it men and women are both potential candidates. Given the relative separation of their spheres of employment, we must modify that initial statement to say that the rules of female employment in general operate to insulate the male labour force from potential female competition. By rules we mean not just hiring or promotion procedures, but domestic constraints, socialization, public attitudes, etc: the whole gamut of processes which have been analysed by feminist sociologists in the last decade. By insulate, we do not mean that

(7) Bell deals with female labour in one page, under a section headed 'Some Labour Problems of the Post Industrial Society' (ibid, 145).

(8) See Hakim, 1979; Payne et al 1980.

women never compete for the same jobs but that only a small part of the potential female labour force attempt (or are allowed to attempt) to compete for certain jobs: this leaves the field more or less free for the men. The extent of the separation is demonstrated in Chapter 5 but clearly an attempt to reconceptualise the logic of industrialism in terms of gender is long overdue.

This is relevant to one of the more recent views of modern society, namely that of Gershuny. He has argued that post-industrial society is a self-service economy, in which what was previously production activity has become consumption activity in the domestic (and therefore to a degree, female) sphere.

'There are grounds for suggesting that future provision of services in developed countries may be increasingly extra-economic, that jobs in service industries may be replaced by activities undertaken within households or by other sorts of voluntary associations outside the money economy ... people no longer buy the final service from railway or bus systems, but instead buy cars, and produce the final service themselves' (Gershuny 1979 original emphasis).

A similar argument is made for replacing servants by consumer durables, and the trend to 'in-home' entertainments. Gershuny distinguishes 'final service', ie, direct provision, from 'indirect service', such as the production of a service good. The more that consumers carry out this final service themselves, the fewer jobs that are created in service industry. Indeed, because consumer products are essential to a self-service economy, jobs are created in manufacturing industry, not the tertiary sector. Indeed one might observe that the new manufacturing jobs are not necessarily located in the same society: jobs can be 'exported' to third world countries (Fröebel et al, 1980) so that the net result is unemployment in the service society itself.

Gershuny does not, however, reject the thesis of skills enhancement. He contrasts the idea of a service economy (what here has

been called industrial or post-industrial society) with its undifferentiated drift towards tertiary industry and tertiary occupations, with his conception of a self-service economy, where, 'because of automation and division of labour, a trend towards more white collar employment is combined with a progressive concentration of employment in manufacturing industry' (Gershuny, 1978, 146). This formal economy coexists with an informal economy in which leisure services are produced and consumed.

If Gershuny is correct, there are several implications for a theory of mobility grounded in industrial society. First, a self-service or informal economy involves more kinds of extra-economic, or more strictly extra-occupational, activity. Production of services in a non-waged way removes those activities, or even the people producing services, from the occupational realm, so that mobility conceived in occupational terms cannot encompass them (as is presently the case of women in unwaged work). Second, the tertiary sector will not be the key area in which to search for major changes in the occupational order: rather these will be occurring in a secondary sector. And third, if it is the manufacturing sector that dominates, then it will be the class structures of that sector which dominate, rather than those of the tertiary sector. In other words, many more men in the middle class will have experienced the mobility processes of background selection and promotion, and the class factors of attitudes, re-socialisation, control etc, typical of manufacturing rather than service industry.

However, before committing ourselves to these results, there are a number of objections to the Gershuny scenario. In the first place his evidence is rather meagre. The majority of his tables deal with the 1961/1971 transition, with an extension to include the year

1954 for data on household expenditure. The remainder deal with broad categories of industry, rather than occupations, so that the historical span covered is a very short one. The examples presented - domestic labour, home-videos, private cars - are very few in number, but there are many other services which already can be done in the home but are only done so by a very small minority. For example, home-brewing and home food production, house conveyancing, parental education, clothes-making, are all activities which could be much more developed in the informal economy than they presently are. Each offers the equal potential for the substitution of a sale of products which can be used in self-service, for the provision of a service (or as Gershuny argues as his dynamic, the substitution of profit from sale, for cost of a salary of the service worker). Against the potential for self-service, domestic labour (effectively dying out by the 1920s), the rise of private motoring (a phenomenon of the 1950s and 1960s) and the boom in home entertainments (still a minority sport even in the 1980s) seem curiously sparse and historically spaced.

This really is not too surprising once one recognises how much of the tertiary sector is not amenable to self-provision (the distinction between final service and other levels is not important for the present analysis). It is not easy to see how the operations of the public sector, as against the private, could be diversified. Do-it-yourself Town and Country Planning, independent nuclear weapon systems, and domestic taxation are non-starters, not to mention most health and education. And even many of the 'private' services, once we exclude transport and possibly construction, are not susceptible to informalisation except for very limited parts of the population:



telecommunications, banking, insurance and commerce are examples where the service is provided more for organisations than for individuals or families.

Gershuny can be seen, therefore, to over-estimate the importance of what is really only a minor phenomenon. Nonetheless, his observations serve to make several points. Clearly, technology does not necessarily create new jobs, particularly in the service sector. It may do so, but that remains an empirical question. Second, his data are a reminder that occupational change is not confined to the tertiary sector: occupational upgrading occurs in manufacturing too. Finally, his analysis shows how within a broad sector, different forces may be at work so that a separation of, say old staples from newer manufacturing industries, or transport from other service activity may well reveal distinctive modes of mobility. In other words, conventional industry sector analysis may need to be expanded.

This is further confirmation of the view already expressed in this chapter. Bell's own evidence shows that sectoral shift is only a rough guide to occupational distribution. Is it therefore worth considering sectors at all? For Bell, the answer is of course, 'yes', because he is interested in all characteristics of industrialism, and the growth of the tertiary sector (transport and utilities), the quaternary sector (trade, finance, insurance, real estate) and the quinary sector (health, education, research, government and recreation) are used to show how the resources of a post-industrializing society are increasingly devoted to knowledge-based industries. For Bell, and more so for other writers like Touraine, Galbraith, and Dahrendorf, the emergence of a new class on the basis of their 'knowledge resources' is predicated on the existence of institutions of employment to hire the members of the new class. But

how far is this relevant to the more traditional area of mobility and stratification?

If we leave on one side the underlying rationale that we require a general explanatory framework to account for occupational transition, there are two important points arising from sectoral analysis. The first (and it is one that could also be drawn from the theory of capitalist society) is that technological change creates new occupations, and therefore that mobility will be greatest where there has been most technological change (9). Second, there will be more mobility in the quarternary and quinary sectors (although there is no need to insist on those distinctions) than in the primary and secondary sectors. However, following Gershuny and Bell's point about white-collar work in manufacturing industry, there will be more mobility in 'high tech' production industries than in other more traditional parts of the secondary sector. Third, mobility will be most evident at those historical times when there is greatest or most rapid technological innovation.

The first and second of these propositions are much easier to test empirically than the third. The latter requires detailed knowledge of the history of many different industries, and given the other two propositions, the effect of the third may be harder to identify. Again, current events tend to suggest that technical innovation leads to a reduced labour force, as those with obsolete skills are discarded.

Rothwell and Zegveld (1979) have recently implied that the era of major sectoral shift may be passed. Citing the reaction against government spending in the USA and counter-inflationary policies in

(9) 'Technology' in this context is used to compass 'social technology' as well as purely physical technology.

Europe, they argue that the public sector service industries of education, environmental services and welfare cannot continue to expand because of the reduction in public finances,

'the main hopes for future service employment growth must lie in the expansion of the private sector, and if aggregate demand is raised sufficiently, then this must surely exert a demand for goods and services somewhere in the economic system with a growth in jobs to provide these extra goods and services' (Rothwell and Zegveld, 1979,48)

Even so they go on to suggest that the response in manufacturing industry may well be one of increased production without any comparable increase in employment, as the technology of labour-saving equipment is now so well-established. They use the term 'jobless growth' to identify a period which begins in the 1960s and is clearly present by the 1970s, since when most OECD countries have experienced an absolute decline in employment in manufacturing. Although this comes right at the end of the period covered by the Scottish Mobility Study, the patterns of mobility in the late 1960s may well be affected by this 'long-term structural change in the pattern of output and employment' (ibid, 38).

The difference between employment and productivity is also emphasised by Browning and Singelmann (whose work in fact is more in the tradition outlined in the previous chapter). They argue that both primary and secondary sectors in America have been characterised by marked increases in output but absolute and relative declines in employment in agriculture. Goods-producing is more susceptible to technological inputs designed to increase productivity than services, because non-material products are harder to standardize. Increasing productivity in agriculture and manufacturing

'allows for economic growth and rising national and per capita income, which in turn stimulates a rising demand for various kinds of services' (Browning and Singelmann, 1978, 485).

They conclude that, as far as America is concerned, 'the most dynamic phase' of sectoral transformation will have occurred by 1970, leaving little relative change in proportions of employment between sectors in the rest of the century. The transfer of employment between industries is almost complete.

Browning and Singelmann also propose an elaboration of the primary/secondary/tertiary model, in which the tertiary sector is replaced by four separate sectors: distributive services; producer services (ie, commerce); social services (welfare and public administration); and personal services (entertainment and personal consumption). They report a similarity to the typologies independently derived by Katouzian and Singer (Browning and Singelmann, 1978, 491; Katouzian, 1970; Singer, 1971). The common element is that a distinction is made between industry or production-oriented services (distributive and producer services); services which are collectively consumed and provided directly or indirectly by the state, such as health and educational and personal or individual services which relate to leisure consumption. As Browning and Singelmann note, some difficulties of classification exist at the boundaries, and the analysis used here in later chapters adopts a different elaboration of the service sector, empirically based on recent Scottish history.

What this section has shown is that the basic idea of technological change leads to a variety of rather more sophisticated positions. In particular, the complexity of the processes involved poses a problem for the present study, because if mobility is dependent on patterns of employment, then these patterns of employment are changing in a number of different ways. While an analysis based on the major sectors of primary, secondary, and tertiary industry is obviously

improvement on earlier levels, it is theoretically, if not always pragmatically, possible to explore even more detailed sub-divisions of economic activity.

Given that the creation of new occupations is focussed in some sectors and not others, and in some times, and not others, and that mobility may be similarly concentrated, then changes in the class structure must be similarly differentially located within society. Therefore to talk about the 'new intelligentsia' - or any of the concepts employed by the theorists of industrial society - disguises a great deal of variation within society. While this can be taken as physical variation, ie, that the mix of industrial change in Scotland differs from that in South East England, it is also a social variation which may differentiate, say, the electronics industry from the newspaper industry ⁽¹⁰⁾, wherever they may be located. One of the reasons for studying mobility in Scotland is that it is not simply a carbon copy of England. Although we are interested to know why Scotland's economy takes its distinctive form, the focus of that interest is its occupational constitution. The subdivision of the labour market into geographical or skill-level segments is particularly relevant for a development of an occupational mobility analysis.

Occupational Classes in Industrial Society

Although the previous sections dealt with industrial society as a type, the discussion inevitably involved ideas about occupational structure and class. If industrial society is based on the separation of ownership and control, and the growth of knowledge (processes also exercising theorists of capitalist society) then the basis for social

(10) This example serves two purposes. It shows that there are different rates of innovation between industries, but it also shows (because of recent changes in type-setting technology) that even traditional industries have experienced dramatic technological changes (a la Bell): there are no purely 'traditional' sectors, only variations in the rate of change.

formation changes. A number of writers, most notably Parkin, Giddens, Dahrendorf, and Goldthorpe, have suggested ways in which the new occupational roles provide the basis for new classes.

Parkin argues that industrial society is not dominated by the social relations of the capitalist firm. On the one hand the state is a major employer, while on the other (following Dahrendorf) work relationships do not dominate all other non-work activities. Thus while work is justifiably a major focus of interest, non-marxist sociology, concerned with the division of labour 'as the main area in which observable realities of class played themselves out' (1979, 14) has defined out of existence 'the sister concept of capital' and yet at the same time failed to recognise the salience of other sources of social differentiation. Race, religion, language and gender are all independent bases for cleavage or coherence:

'A model of class relations that addresses itself exclusively to inequalities surrounding the occupational order is therefore bound to be defective.' (*ibid*, 15).

Parkin uses the concept of closure to demonstrate how groups may restrict access to resources and opportunity: in 'modern capitalist society' closure takes two main forms, those institutions relating to property, and academic or professional qualifications. It is the latter that most concerns the present analysis.

Parkin identifies several groups within the middle class who have established control over entry to their occupations, based on possession of educational credentials (this being a viable strategy because of the technical nature of work tasks in industrial society). Here, closure is on occupational lines: class and occupation coincide. Their shared identity comes from their strategy of closure, not from property ownership nor from any 'indispensibility' of their function. However, the credentialist closure has a drawback: it makes

transmission of socially-advantaged occupational positions to one's own children much more difficult:

'Dense children of the professional middle class ... will continue to stumble at the intellectual assault course set up largely for their parents' own protection. Conversely, large numbers of bright children of the culturally dispossessed will sail through to claim the prize of professional entry' (ibid, 61, original emphasis).

Parkin regards the middle class as having been 'guilty of grievous errors and miscalculations in its reproductive designs' (ibid, 62) to allow so much upward and downward mobility. Even if the examination system does work in favour of the expensively schooled or otherwise socially advantaged, so reducing the risk of competition from the offspring of other classes, the patterns of mobility can only be explained by a misguided commitment to credentialism as a system based on sponsorship and careful selection, rather than hereditary transmission.

However, there are several alternative views that we can advance to a model of self-inflicted injury. First, while the professional middle class may be extremely powerful, that is not to say that as a class it is all-powerful. There is no need to believe that any one class exerts anything like total control over social events. Second, the expansion of new professions outpaces the credentialist procedure: new professions take time to impose closure, while demand for expertise in the short run exceeds supply (see below Chapter 9). Third, again as we shall see, the process of credential competition in fact becomes important only in the 1960s, at which point some indices of upward mobility begin to suggest that the middle class starts to achieve higher rates of self-recruitment.

Parkin's account of credentialism and mobility shares some similarities with that of Giddens, not least because of a common debt

to Weber's ideas on non-class sources of association. Giddens also identifies possession of educational or technical qualifications as one of his three sorts of market capacity, arguing that within the non-manual middle class,

'the most significant type of difference in market capacity is undoubtedly between the capacity to offer marketable technical knowledge, recognised and specialised symbolic skills, and the offering of general symbolic competence' (Giddens, 1973, 186).

Professional credentials are what mark off draughtsmen and social workers from routine white collar workers, not their place in the hierarchy of organisations or as a bridge between rulers and ruled. Qualifications, together with possession of property and manual labour-power 'tend to be tied to closed patterns of inter- and intra-generation mobility' to yield a three-class core system (1973, 107).

Giddens sees mobility as playing a key role in linking market capacity to the formation of socially identifiable classes. This

'mediate structuration of class relationships is governed above all by the distribution of mobility chances which pertain within a given society ... the greater the degree of 'closure' of mobility chances - both intergenerationally and within the career of the individual - the more this facilitates the formation of identifiable classes' (*ibid*, 107).

However, Giddens is theorizing on the basis of the 1949 Glass study of mobility (and possibly on a misreading of Miller's comparative data),

'virtually all movement, whether upward or downward, inter- or intragenerational, across the non-manual/manual division is 'short-range': that is to say, takes place in such a way as to minimise achieved differences in market capacity' (Giddens, 1973, 181).

He also assumes more or less constant rates of mobility (*ibid*, 182). As will be shown below (and as the results of the Nuffield study also show) there is in fact considerable 'long-range' mobility, and mobility rates do vary. Therefore the formation of socially identifiable classes is a weaker process than Giddens implies, because there is less closure of mobility.

Although on the surface he is dealing with class structuration and classes, Giddens, like Parkin, necessarily places occupation very much to the fore, because occupations are a kind of concrete representation of market capacity; qualifications and mobility processes relate to entry to occupations. Similarly in identifying the manual working class, he uses the division of labour in the sense of 'the allocation of occupational tasks within the productive organisation' (108). In other words, Giddens draws on those key attributes of industrial society, the technical division of labour and the importance of knowledge, to identify class formation. Of course, he links these ideas to others, such as ownership of property, and 'distinctive groupings', so that class formation is a more dynamic, complex, and less technologically determined process than in, say the writing of the convergence theorists. Nonetheless, his formulation depends on many of the same basic understandings about the social relations of technology in industrial society, while the emphasis placed on mobility provides an important link between occupations and classes (11).

Parkin and Giddens share with Dahrendorf the view that contemporary society is no longer to be explained primarily by the ownership of the means of production, but the latter differs markedly in where he places the emphasis. The sheer scale of activities outside of the capitalist-employee relationships - as much in bureaucratized firms as in the state apparatus - indicates a social order in which classes far from being missing, owe their existence to forces beyond property. Dahrendorf identifies authority relations as the key, rather than market situation (1959, 136-140), rejecting occupation and market situation per se as bases for classes. The authority structure becomes

(11) Although it is interesting to note that Giddens seems to think in terms of 'class mobility', not occupational or social mobility: see the index entries (or rather, absence of them) for these terms 1973; 327, 332 and 334).

'the structural determinant of class formation and class conflict' (ibid, 136). More recently, Dahrendorf has presented his view of a fragmented middle class with a heavy emphasis on access to educational qualifications (1982, 57-9).

Goldthorpe's position lies between these two views. His use of the term 'service class' expresses the idea of property-based authority positions, but his framework is firmly based in market and work situations. For the service class to be

'a class of employees who are appointed to the positions they hold, some higher agency is evidently presupposed ... (having) power, whether the bases of this are economic, political, military or whatever' (Goldthorpe, 1982, 170).

The members of the service class are

'typically engaged in the exercise of delegated authority or in the application of specialist knowledge and expertise, operate in their work tasks and roles with a distinctive degree of autonomy and discretion ... (and) are accorded conditions of employment which are also distinctive in both the level and kinds of rewards that are involved. In other words, professional, administrative and managerial employees are in these ways typically differentiated from other grades of employee - and most obviously wage-workers - in the character of both their work and market situations' (ibid, 169).

Goldthorpe differs from Giddens in seeing that these shared elements justify the treatment of managers and professionals as occupying a single class location, even if their precise technical function is not identical.

Both of the above quotations also show how dependent Goldthorpe is on employment even when dealing directly with conceptions of social class. His position vis-a-vis industrial society is however a sophisticated one. The growth of professional and managerial occupations is presented as 'a response to organisational exigencies' and being possible because of 'economic growth'. Nonetheless, this is not taken to mean that the growth is a 'natural' development of the division of labour in the course of economic growth' as sectoral shift

accounts (eg Clarke) imply. Rather the service class's form reflects 'the structures of organisational and political power and the character of dominant values and ideologies' (op cit. 302-3). By implication (although it is not very evident from his main work on mobility) Goldthorpe sets class formation in discrete historical and social settings, so marking himself off from many of the main theorists of industrial society whose accounts have often suffered from both a lack of case studies and an uncertainty about the connections between the elements in economic change that they sought to theorize.

Mobility and Labour Markets

Because mobility research has been inspired by an interest in class structures, it has taken as its unit of analysis either whole social structures (ie, societies) or, for reasons of practicality, geographically discrete settlements like cities. The individual is seen as competing against all other individuals within that unit to achieve the 'best' occupation possible. Individuals are not equal, so that the outcome of the competition reflects the handicaps (family origin, qualifications, etc) of the competitors. This process resembles the operation of a labour market, and in particular, its implicit assumptions closely resemble those of neo-classical economics (12). However, the significance of this has not previously been recognised, because mobility research has not taken its occupational dimension sufficiently seriously (although see Kreckel (1980)) (13).

(12) Some similarities between neo-classical economics and the theory of capitalist society will also shortly become clear.

(13) Kaufman et al (1981,1) list several 'students of stratification (who) have begun exploring structural characteristics of jobs, firms and industries', while Smith (1983) explores mobility and labour markets for football coaches. The connection between mobility, labour markets and ideas of class is taken up in the final section of this chapter.

The idea of a labour market encapsulates

'the institutions and practices that govern the purchase, sale and pricing of labour services, the means by which workers are distributed among jobs, and the rules that govern employment, mobility, the acquisition of skills and training, and the distribution of wages and other rewards obtained contingent upon participation in the economic system' (Kalleberg and Sorensen, 1979, 351-2).

Neo-classical economics treats labour in the same way as other commodities in positing a single, perfectly competitive market. The normal laws of supply and demand apply, with the worker (as supplier of labour) maximising his rewards in a rational manner by adjusting his wage demands and his geographical location in response to those laws. In a more sophisticated version, the market may be regarded as disaggregated into different skill levels, but the same principles then apply within these sectors. On the supply side, rational economic man is assumed to have the knowledge which enables him to evaluate all opportunities and to decide which balance of costs and benefits best suits him: the worker exercises choice. On the demand side, the employer is interested in the productive potential of labour as against alternative factors of production, and therefore differentiates between workers as units of labour according to their qualifications, experience, work record, etc. He sets up a hierarchy of utility, which manifests itself in wage differentials, rewarding most those workers with the greatest productive potential. In exercising his choice of whom he will employ, he seeks to constrain the choice available to the worker.

The similarities of this to the unspoken assumptions of mobility analysis are evident. Distribution to destinations comes about through inter-individual competition, with the interaction between the supply of individuals having particular attributes, and the demand of occupational opportunities having certain entry requirements, representing the framework in which that competition takes place. The

handicaps of origin which explain the outcome for any given set of individuals are those implied by Kalleberg and Sorensen's list: the rules of employment, the acquisition of skills, the means by which workers are distributed among jobs. The central conception of mobility echoes perfect competition in that it measures deviation of the observed pattern from the expectation under perfect mobility. Apart from providing an economic, as opposed to a sociological, principle as the core explanatory device and dealing more explicitly with the demand side of the relationship, the neo-classical economic formulation of the labour market takes the same underlying model as social mobility analysis.

There are therefore two sufficient reasons why a discussion of mobility requires some consideration of labour market theory. First, the logic of taking mobility's occupational dimension seriously must immediately establish a connection with areas of sociology previously compartmentalised under the heading of 'work' rather than 'mobility'. Second, the congruence of the underlying models suggests that labour market theory is one of the more fruitful of these areas to explore, not least because it points to assumptions in mobility research which have hitherto received little attention. In particular, recent criticisms of orthodox labour market theory hold out the promise of generating parallel critiques of mobility theory ⁽¹⁴⁾. What we are working towards at this point is a reformulation of the social mobility process as a labour market process.

In the first place, although it can be assumed that all workers require employment, the labour force is not in a constant state of flux, with every member actively seeking to change his employment at

(14) And, as we shall see, of reviewing the critiques of labour market theory on the basis of mobility findings.

the same instant. 80% to 90% of people are in work, and remain in the same post for some time. Anything less than this would render conventional economic activity impossible, because of the high turnover of personnel in any one institution: the case of an office dependent on the services of 'temps' is a good example of how, without a stable work force, efficient operation is severely impaired. Low labour turnover is in the interest of the employer, as it ensures continuity of procedures. It is also frequently in the interests of employees, who avoid the upheaval of frequent changes both in their own work routines and in those of work colleagues. Even if we assume that labour inertia reflects a conscious maximisation strategy on the part of the workers, it still means that the active workings of the market are confined to a marginal process. Everyone must at some stage seek employment, but at any one time, the market is likely to be relatively inactive.

But how do those who are seeking employment make their choices? In the first place, the 'choice' of employment is seen as not following strictly rational, optimising behaviour. This may not seem very significant to a sociological audience, but the more recent contributions to labour market theory are part of dialogue with neo-classical economics, in which, for example, rational economic man has a central place. As Loveridge and Mok conclude, numerous studies suggest that there are four good reasons for abandoning such assumptions:

1. Few workers are oriented towards maximising their monetary rewards either in the short or long term.
2. Job security is more important than wage differentials.
3. The labour market is opaque rather than transparent and this contributes to the lack of mobility between segments.
4. There is little inclination to move between regions or occupations' (Loveridge & Mok, 1979, 117-118).

In the second place, a number of writers have reported that the actual 'search' for employment, such as it is, is a restricted one particularly for unemployed manual workers (Reynolds, 1951, 85-6; Parker et al, 1971, 92; Martin and Fryer, 1973, 138-41). Worker knowledge of what jobs are available, what those jobs entail, what the exact wages might be, or what qualification the employer may be seeking is very limited. Virtually no mechanism exists for the dissemination of this information, beyond a partial Employment Exchange system which conveys far less than complete data. This is not surprising, because it is not in the employer's interest to promote one. By restricting knowledge, he is able to constrain the worker's choice, to control access to employment, and to ensure a low turnover of labour. The only avenue open to the rational economic worker would be to sample a number of jobs in order to obtain first-hand experience, but this is likely to be interpreted as an undesirable employment record by the typical prospective employer who is concerned with maintaining a stable work force. Not only is the trial and error approach inconvenient for the worker - despite its 'rationality' - but the superior economic power of the employer enables the latter to block this avenue. However, as Blackburn and Mann observe, the market can operate with workers having a very crude level of knowledge, such as that a firm is offering 'good wages' (15).

Just as the worker may have a crude idea about wages and vacancies, he is also likely to have only a partial picture of the way in which employers differentiate between workers' abilities. While formal selection criteria exist - education, training, experience, and even aptitude tests - for many jobs (including some of those in the

(15) Blackburn and Mann, 1979, 15-6. This notion of choice of employment on the basis of vague (and even inaccurate) knowledge resembles the model proposed in Appendix I, namely that the ranking of jobs as more or less desirable can be accomplished with very little precise knowledge. Here we are dealing with access to employment, in the appendix we are dealing with perceptions of occupations.

upper middle class) the process of selection is haphazard, depending as much on impressions created during a brief interview with a personnel manager as anything else. At the manual level, Blackburn and Mann estimate that in Peterborough

'about 85% of the workers possess the necessary ability to undertake 95% of jobs' (Blackburn & Mann, 1979,12).

Instead of seeking quality, employers 'screen out' workers who have some attribute which is treated as if it equated with a lack of ability.

'In the first stage of the selection procedure for "good jobs" are weeded out the blacks, the women, those with several jobs over a recent short period, the very young and the very old, the single and the school dropouts ... What all these criteria have in common is that they are aimed less at "ability" than stability. The sought-after worker is less the skilful initiative-taking worker than the worker who will arrive on time, do as he is told, and not quit' (ibid, 13).

Selection criteria such as these ⁽¹⁶⁾ result in a stratification of the labour market into at least two sectors. One consists of a market in desirable jobs sought after by a relatively favoured labour force, while the other consists of undesirable jobs competed for among sets of stigmatised labour.

This is the basis for 'segmented' labour market theories, and in particular dual labour market theory as outlined by Piore and Doeringer in the early 1970s. This postulates a labour market operating as two segments, a primary sector and a secondary sector. In the first are

'jobs with relatively high wages, good working conditions, chances of advancement, equity and due process in the administration of work rules and, above all, employment stability' (Piore, 1975, 126).

(16) With which, it may be pointed out, many white male trade unionists would sympathize. Obviously, in dealing with such 'non-economic' or 'non-technological' criteria, we are moving some way beyond the theory of industrial society. Writers such as Blackburn could equally well be treated as part of the marxist tradition, although his inclusion here enables the question of market segmentation to be more easily linked to the labour needs of certain technologies.

In contrast, jobs in the secondary sector are much more likely to

'be low-paying, with poorer working conditions and little chance of advancement: to have a highly personalised relationship between workers and supervisors... and to be characterised by considerable instability in jobs and a high turnover among the labour force' (ibid, 126).

Not surprisingly, it is the stigmatised categories of labour which are confined to the secondary sector, and this model has been accordingly directed towards an understanding of poverty and under-employment.

On the demand side, the market is equally segmented. The primary sector is dominated by large monopoly capitalist firms using high technology and which are relatively profitable. They are insulated against short-term fluctuations in demand and so are more concerned with maintaining a stable and experienced workforce which can handle its high technology. The secondary sector consists of firms operating on a smaller scale in a marginal and more chaotic market. Such firms must respond rapidly to changes in market conditions, shedding and re-hiring labour at short notice. As these small firms operate with limited capital, their technology is likely to be low and therefore less dependent on highly specialised labour. Averitt (1965) has expressed this difference as the division under monopoly capitalism into 'core' firms which dominate the primary sector and 'peripheral' firms which operate in the secondary sector, often as sub-contractors to the core firms.

It follows that if only certain categories of labour can participate in the primary sector, and if the employers in that sector wish to maintain a stable workforce - with, as we have already noted, only a small proportion of the labour force actively seeking new employment in conditions of low knowledge levels - then the conditions are set for high mutual dependence between employer and worker (Mann, 1973). In such a dual market, a secondary principle comes into operation, the 'internal' labour market. Doeringer and Piore (1971) have suggested that the primary sector consists of a set of internal

labour market segments, each consisting of a single firm which controls entry to a range of jobs. Unlike the secondary sector, workers are trained and promoted within such a firm, with external recruitment restricted to only certain types of work, most noticeably the most menial. It is possible to regard a particular skill group, already inside a firm, as advantaged by these practices, even if their external movements are restricted. In other words, both employer and employees could benefit from an internal market structure.

This is not the view taken by 'radical' labour market theorists (see for example Edwards et al, 1979). In that formulation, the divisions of the labour market are not merely a contingent result of capitalism, but rather an outcome both necessary for the system's continued existence and a deliberate manoeuvre by the capitalist class to weaken the working class. As Blackburn and Mann (1979) have pointed out, this combines functionalist explanation with an excessively conspiratorial theory of history, while at the same time failing to account for the economic significance of stigmatised labour. It may be in the political interest of the capitalist class to divide the working class against itself, but closer integration of blacks, women, adolescents etc into the primary market would force down wage levels and generally weaken the bargaining position of white male workers (17). Nor does radical labour market theory explain the variety of practices that can be observed, ranging from active collaboration between workers and employers in maintaining an internal market, to disputes over the restrictive practices of craft unions, and arguments

(17) In this discussion of labour markets, the question of ethnic discrimination and migrant labour has largely been omitted, because Scotland has such a small proportion of her labour force which falls into this category. This should not, however, be taken as implying that the problem is not important: see Moore (1977), and Blackburn and Mann (1979) on which account this section draws.

over seniority as a principle of promotion. There has been no single coherent policy on the part of the capitalist class.

The variety of practices is seen as a key element in the critique developed by Loveridge and Mok. While they accept the general points that the labour market discrimination exists in institutionalised form, and that workers seek to maximise their condition, they favour a more complex explanation than that put forward by Doeringer and Piore. Although gender, race, language, age, and religion may all operate as stigmatising characteristics,

'whether the market conditions facing these multi-various groups are sufficiently homogenous for them to be considered to be sharing the same market situation is to be doubted' (Loveridge & Mok 1979, 110).

Workers experiencing more than one stigma are presumably more disadvantaged than others, while different employers at various times will discriminate on different grounds. A simple dual market model does not adequately encompass this variety.

This critique has been extended by Kaufman et al (1981) who examined segmentation in the American economy using ten broad dimensions ranging over size, capital, control, productivity, unionization and growth. This enables them to identify eight major segments extending from an 'oligopoly sector' with seven major multinationals, through wholesale and small shop sectors, to utilities and services. Although their prime concern is not employment, their argument that a dual model does not take sufficient account of 'the interaction of profit seeking, technology, environment, union struggle and government intervention', and that such dimensions do not coincide in any simple way, is a powerful one.

What makes their study particularly interesting is that their cluster analysis begins to take on an appearance reminiscent of the industrial sectors discussed in the earlier part of this chapter. On the other hand, some of the clusters do strike one as surprising: the

similarity of the three sectors 'local monopoly', 'education and non-profit', and 'agricultural' are three strange bed-fellows, sharing low scores on capital intensity, size, concentration and unionization.

Clearly the use of such variables as level of trade union membership or government intervention, which are culturally-specific, restricts the precise transfer of conclusion about America to Scotland.

Nevertheless, Kaufman et al's analysis reinforces our concern to disaggregate mobility into several industrial sectors as a means of approximating labour markets, and to go beyond a simple dualistic conception.

Mok has attempted a further variant of the model by suggesting that there are potentially a higher number of labour market segments, with relatively more permeable boundaries. Their exact status depends on the interaction of the primary and secondary markets with the internal labour markets. In two dimensional terms, one axis expresses how people (or jobs) stand in terms of job rewards, conditions, autonomy and security while on the other axis people and jobs are characterized by their tasks, skill, training, and place in an organizational hierarchy. The combination of the two dimensions gives the possibility of less attractive labour situations within internal labour markets, and more attractive outside, as well as the more common situation which is the reverse (Mok, 1975).

One difficulty with these latter views is that the dual labour market model begins to disintegrate into such a segmented structure that all coherence is lost. In that case, any statements are likely to be ones about small clusters of occupations which are linked by the career patterns of individuals. This may not matter in terms of the original labour market debate, in which racial and sexual discrimination loomed very large, but in terms of discovering mobility

structures it is something of a disadvantage. If segments of labour market exist, then to be viable for empirical and conceptual use they must be differentiated. That is to say, there must be some degree of segregation between them. The evidence of segregation consists for the most part in differences between wages. For example Barron and Norris (1976) report an overlap of male and female earnings of less than one third, but there is less evidence of ethnic segregation in this country, certainly as compared with America. Segregation of actual jobs, say by gender, is not always clear cut, if only because conventional categories are too crude to identify the underlying pattern. Nonetheless there is a concentration of female labour in some occupations, and male labour in others (routine white collar employment is an obvious example of female concentration) (18).

Against this there is considerable evidence to suggest that segregation is not inherent in the operations of the market per se. Differential treatment of the genders is not only rife outside of work, it also predates modern capitalism. Gender segregation of occupations therefore requires no special explanation based on market forces. A parallel argument can be made for ethnic discrimination: arguably there is greater concentration of ethnic groups in education and location of residence than in work.

Again, the segregation of markets implies the allocation of all desirable jobs to the primary sector, and all undesirable jobs to the secondary sector. But there is a hierarchy of desirability within both sectors, so that there is penetration of the primary market by stigmatised labour, and of the secondary market by what is assumed to be non-stigmatised labour, ie, white males. The dual model may hold

(18) See Clegg and Dunkerley (1980, 400-405) and Hakim (1979).

good at the extremes, but not for the crucial area of the supposed boundary between segments. One reason for this is that the activity of a firm in the primary sector is frequently supported by many small firms which eke out a tenuous existence (in the secondary sector) as sub-contractors to the major firm. Some of the occupations, the skills, and the wage rates are common to both, or as one study as part of the Glasgow labour market has shown, the flows of labour between sectors and the complexity of pay structures are so complicated that it is not possible to identify a coherent wage pattern (Robinson et al, 1970).

The same inter-connection also applies between internal and external labour markets. If there were impermeable barriers to an internal market, then labour mobility would be chiefly by means of promotion. Although promotion does take place, it is by no means the dominant process: Mackay et al (1971) report that in the engineering industry 'between firm' moves accounted for more upward mobility than promotion within single organisations.

In the light of this pessimistic appraisal, the reader might be excused for wondering about the value of a lengthy account of labour market theory. The rationale for it consists of two kinds of reasons, those to do with a basic orientation in our approach to the mobility process, and those to do with the more detailed features of the mechanisms by which labour is allocated among occupations.

Once the initial step has been taken towards recognising the centrality of work in understanding mobility, an examination of available models of the work process naturally follows. If labour market theory has failed to provide a complete and tidy explanation, it is not surprising, given the nature of the complex phenomena it attempts to encapsulate. Despite the limitations discussed above, labour market theory is centrally concerned with the forces which

determine what jobs people get; it draws attention to the fact that the outcome of the total process depends on the interaction of supply and demand; and (in its segmented form) it delineates the internal subdivisions of the job market. Its utility for mobility analysis is accordingly to reinforce the argument that the economic dimension is of major importance; to demonstrate that access to employment depends both on the availability of, and rules of access to, jobs, as well as the suitability of the would-be workers for those jobs; and to suggest that the mobility competition is not a war of all against all, but rather that the competition tends to be compartmentalised. Not least, labour market theory helps to provide an explanation of why mobility takes place, in terms of the central human activity of production, which helps to release mobility research from its relative isolation as a captive of stratification theory.

At a more detailed level, the fore-going discussion suggests several features of labour markets which can be explored as mobility process, or more accurately, we can seek empirical evidence as to whether particular mechanisms of job allocation seem to be in operation. The level of analysis and the site restrict what can be done: for example the occupational segregation of ethnic groups and women cannot be properly analysed with the present data. However, if we can legitimately extend the perspective to the rest of the labour force, and in particular to unskilled manual workers, then the connection can be made. Piore (1975) has suggested in passing that both class and mobility can be related to main segments of the labour market. Although it is not his main concern, he distinguishes three segments - an upper and lower primary sector, and a secondary sector - which comprise types of work corresponding to middle class, working

class, and lower class sub cultures, the latter being sociological categories (1975, 128). In the course of careers, if not at entry, people from middle class backgrounds gravitate to upper primary types of work, while those from working class origins come to occupy the lower primary jobs and the lower classes end up in the secondary market. In the more familiar mobility terminology, Piore is suggesting that the effect of family background is not greatest at first job (as is normally assumed in mobility analysis informed by ideas of ascription giving way to achievement) but rather at the 'present job'. The mechanics of this are not spelt out, but appear to reside in the fact that the middle class in particular enter occupations which are part of a cluster of jobs comprising a mobility chain, that is, they have careers. Such mobility chains are concentrated in the upper primary sector. The validity of this model can be tested by comparing mobility at different points in the career.

A second concrete proposition which can be tested is drawn from Loveridge and Mok. Developing Mok's earlier two dimensional, four segment model, they argue that the segment with higher wages, better working conditions, higher unionization, involving sophisticated technology, autonomy, and high levels of internal promotion are concentrated in the following industries: oil, chemicals, public utilities, and metallurgy. Conversely, the segment with lower wages, poorer working conditions etc are to be found in textiles, leather goods, glassware and food (interestingly, not in service occupations). While we cannot present data on all of these variables, it will be possible to examine similar industrial groupings, and also to use this proposition as a special case of Piore's argument above.

Third, and more generally, if the internal/external market concept is taken seriously it means that promotion should feature

predominantly in the explanations respondents give for their job changes. This shifts attention away from pre-work attributes like education, and towards intra-career events. Similarly, the logic of a secondary and external sector can be extended to those who have no skills but only muscle power to sell. We would expect to find these categories of worker concentrated in certain industries, such as manufacturing rather than service industry. Similarly, number of jobs held - as respondent attributes - should be correlated with type of industry and class position. If there is a segmented labour market, mobility can be used as a measure of that segmentation, in the same way that mobility is used to identify class boundaries. Thus if there is evidence of segmentation, we can examine careers to find whether those presently occupying segments have ever worked in other sectors of the market (19). In this way there is the possibility both of refining mobility analysis, and of providing some evidence on labour markets.

The theory of industrial society offers a number of perspectives by which stratification can be linked, through mobility and occupations, to the historically unique feature of advanced technology. In this chapter, we have been less concerned with class per se than occupation, but the nature of the upper middle class emerges from the early section as being particularly problematic - as indeed it did from the discussion in the previous chapter. This strata will therefore be prominent in the later empirical analysis. At the same time, the present account has argued for an analysis which goes beyond broad statements about technology and society, or industrial sectors, to examine in greater detail how different sectors, with their characteristic technologies, create occupational demands. This

(19) To quote Jain and Sloane (1977), 'the essence of segmentalist theories is the all pervasive nature of natural barriers to mobility' (mobility here having a wider meaning than social mobility).

approach assumes a somewhat less-integrated and untidy character for industrial society than some earlier writers, with various sectors being 'more advanced' than others. Regional variations in industrial mix are seen as an important example of this, but in the more general case, the overall patterns of employment and mobility may respond to changes which operate only in one (or a few) of the several sectors. To put it another way, trends and counter-trends are not society-wide phenomena, but can be located in areas and industries. It follows that the class structure of a society is seen primarily as an aggregation of these many labour/technology (and organizational) processes, rather than having an objective existence in its own right.

In Chapters 2 and 3, the basic position adopted in the opening chapter has been elaborated by reference to two broad bodies of writing. This has provided alternative explanatory frameworks, as well as specific propositions which will be empirically treated in later chapters. The first exercise, which draws on the ideas about capital, technology, and location which have been discussed, is to consider the site of the investigation, ie, Scotland. On the one hand, it is necessary to describe the main features of Scottish society that justify a separate analysis as a society in its own right. This having been done (in the next chapter) it will be possible to examine in greater detail how the more recent history of the country has shaped the life-experiences of the adult males who comprise the sample.

CHAPTER 4:The Historical Context of Mobility: the Social and Economic Character of Scotland

The two preceding chapters have both been concerned with models of society, capitalist society or industrial society. In debates about such models, any one society is treated as being more or less interchangeable with any other, because each society is only of interest to the extent that it demonstrates the particular attributes of the type in question. However, in the opening chapter, it was also argued that the real events of history like wars or the rise and fall of industrial enterprises change the occupational process and so affect mobility. The two views are not entirely contradictory: at times one rather than the other may be emphasised, according to the level of analysis.

Given the duality of this approach, the next step is to consider the historical setting of the research site. As the cases of mobility to be analysed in later chapters consist of adult males resident in Scotland in 1975, we need to review the development and character of Scottish society. On the one hand this involves a concern with the unique situation of Scotland, while on the other the theories of society already discussed suggest key processes requiring attention as typifying capitalist or industrial society. For example, much of Scotland's particular development can be attributed to her patterns of capital accumulation and transfer, and ownership of production, together with the introduction of new technologies and changes in the public administration of the country. How do these effect mobility?

The task of situating mobility in a wider context is not without difficulties. In the first place, we need to consider why 'Scotland' is a suitable unit of analysis. The reason depends less on seeing Scotland

as a nation-state than on seeing that the country comprises an interesting set of social processes which cannot be explained without some reference to Scotland's discrete existence within a wider web of connections. There are several facets to Scotland's discrete existence. It has a distinct physical area, with a very sparsely-populated and geographically extensive southern border country, so that it is both distant and separate from England. It is an administrative unit, with separate laws and state powers operating within its boundaries. Third, it can be claimed that it possesses a national culture, which exists not so much in the artificial symbols of kilts, haggis and highland games, as in the shared interests in the mundane events of life north of the border. Finally, since so much of 'British' sociology stops short of that border, it can be claimed that de facto, sociology has defined Scotland as something different, if only in the negative sense of not including the country in its actual studies. (1)

This negative approach to Scotland's separate existence actually compounds a second difficulty, that of relating sample survey data to other kinds of social science information. Not only is information often not available on Scotland as a distinct from Britain, but what is known about related social processes (from, say, the Census or economic histories) covers a variety of periods, a range of selected phenomena, and multitude of classifications and definitions. Integration and comparison is therefore at times not possible.

(1) That is to say, English sociologists have on the whole carried out no empirical research in Scotland, despite in practice going on to describe 'British' society, thus implying (but without any evidence) that Scotland is just the same as England. See for example Westgaard and Resler (1977), Butterworth and Weir (1975) and to a lesser extent Noble (1975b).

A further difficulty is that despite the small amount of sociological research on Scotland, the field is already disputed by competing schools. These divisions are not just between theorists of capitalist society and theorists of industrial society (eg Dickson 1980, 9-10) but between those who variously stress the separateness of Scotland or her dependence on England, the place of Scotland in the world system or her distinctive cultural development, the uniqueness of Scotland or her similarity to other types of society. Kendrick and McCrone have recently suggested that three sorts of mechanisms must all be examined: those dealing with the international division of labour and external relationships; those dealing with the processes common to all societies of similar types; and those specific to Scotland herself (Kendrick and McCrone, 1981, 10). They argue that most accounts concentrate too much either on the last of these, so exaggerating differences, or on the particular relationship with England, so distorting the picture into one dominated by rigid notions of dependency. The former (and for us less significant) error lies in histories of Scottish culture and her people, particularly debates in marxism about the role of indigenous ruling classes. The latter error is to be found in the writings on national identity by such commentators as Nairn (1977) and Hechter (1975).

Thus for example Hechter's explanation of Scotland's development attaches more weight to her political domination by England than to events within Scotland. His list of 'possible' features of dominance is all-embracing: economic, legal, political, military, religious, and 'other cultural forms', although he admits that 'there does not seem to be a general consensus' on what is to be included (1975, 33). There is no need to dwell on the details of his

case here: (2) his theoretical framework, like Bryden (1979) and Buchanan (1968) represents an over-ambitious attempt to transfer a core/periphery model from one context to another, inappropriate one.

Nairn takes a broader view, regarding nationalism as a response by a less developed nation to the impact of more advanced capitalism, ie by the uneven development of world capitalism. In concentrating on the global scale, he needs to treat Scotland as both over- and under-developed. Neither view squares with the fact that Scotland was part of the world's first industrial revolution (Kendrick et al, 1983, 3).

While Kendrick and the Social Structure of Modern Scotland Project team at Edinburgh University are correct to criticise both ethnocentric and excessively externalist theories, their own position is in danger of becoming equally entrenched. (3) By concentrating on the similarities between Scotland and other industrial societies they underestimate the extent to which Scotland does have a separate existence. For Scots in particular, there is a framework of institutions and identities that is integral to their daily lives, and this has to be taken into account together with the external linkages and the

(2) For an extensive critique of Hechter's theoretical, methodological and evidential weakness, see Page (1978). The general problems of this kind of core/periphery analysis are that, unlike work in political science, there is seldom a dependant variable left to explain, and that the mechanisms of the relationship are under-specified: see Rallings and Lee (1980, 1 and 33).

(3) See for example their deliberately provocative title to a recent paper, 'Scotland is British' (ibid).

similarities between societies. In order to establish this balance, the review of Scottish history that follows starts with some of the contemporary differences between Scotland and England, before going on to consider how, among other things, world markets, political control, and international flows of capital shaped the economic conditions of twentieth century Scottish society.

Contemporary Scotland

It is in itself interesting that it should be necessary to say something about Scottish society for an English audience. While the political debate over devolution in the 1970's went a long way to acquaint the English public with some of the more obvious differences, there had been little sociological analysis of Scotland (the first chair of Sociology was not established in Scotland until 1968). A need still exists to differentiate between the popular image and a systematic analysis of Scottish life, namely life in a society highly concentrated, long urbanised, and essentially industrial.⁽⁴⁾ The

(4) What is being argued here is that a separateness based on major institutional forms is more important than the relatively superficial customary or cultural signs. The totality of such institutional differences from England justifies treating Scotland as something more than just a region of Britain: in contrast, Wales for all its cultural distinctiveness, is institutionally more akin to England and regional status. We cannot assume a priori that what we know as sociologists about England (eg the basic studies in the 1950's and 1960's of community life, education, religion, etc) also applies to Scotland, for there has been very little sociological study of Scotland. See Anderson (1974) and Kent (1980):

'as yet there is relatively little empirical material which would for example make possible comparative studies between Scotland and England and Wales. In short the sociography of Scotland is weak and needs to be developed.' (Anderson 1974, 1)

Despite the appearance in 1977 of the Scottish Journal of Sociology Parsler could still identify the same gap in 1980 (Parsler, 1980, vii). The present chapter can be seen as a contribution, albeit a brief one towards identifying and filling this gap.

culture of Scotland is not dependent on language, unlike Wales: less than 2% speak Gaelic. Rather, regional dialect helps to reinforce a worldview created by Scottish institutions, despite a relatively limited literary and musical culture. (5)

The list of these institutions is an extensive one. Radio and television production centres, both BBC and ITV, regional programming, Scottish editions of the Mail and Express together with five major indigenous daily papers and two Sunday papers provide an introspective involvement in the country's own doings. Education, religion, legal/judicial and local political systems were not fully integrated under the terms of the Act of Union. The education system does not share England's structure, selectivity, subject specialisation, lack of practical orientation or final qualifications (Ford et al, 1975). The churches have much higher membership, with Catholicism and Presbyterianism both playing a more important part (Hight, 1960). The law is based on Roman law, and requires separate Acts of Parliament (which are often not forthcoming) to bring about changes. Although for some periods the administration was run from London, increasingly affairs have been concentrated in Edinburgh, (6) so that by the mid-sixties there were 55,000 civil servants in Scotland dealing with local problems (Kellas, 1963, 150 and 120-155; Hanham, 1969, 50-63).

In addition there are separate employees and employers organisations, separate trade associations, banks, charities, and political parties. In October 1974 almost a third of Scots voted for a party not contesting any seat in England and Wales, and Budge and Urwin (1966) have

(5) See for example Paton (1968, 215-221), Kellas (1968, 6-9) and Hanham (1969, 44-46, and 147-150).

(6) Public Health, Registration, Public works, Police and Prisons, Trading Standards, Education, Transport, and parts of manufacturing Fisheries, Taxation and Local Government (HMSO, 1970).

argued that separate voting traditions even for the main parties operate in Scotland. Scotland may not be a classic nation-state, but together these various elements form a pattern of distinctiveness nowhere matched by any mere region of England or Wales (for further details, see Payne et al, 1975). The cumulative effects have prompted one commentator opposed to Scottish separatism to admit that Scotland demonstrates 'a unity and cohesion of its own' (Cairncross, 1954, 1).

One other type of difference is the physical disposition of the population. At the beginning of the century, over 74% of the population was classified by the Register-General as 'urban', and by 1931 this figure had risen to 81% (HMSO 1951; HMSO 1966, 182-3). In fact this means that around 65% of Scots lived in towns of over 20,000 populations. This is a low definition of 'urban', but the 1971 figures for population density - which are not radically different from the earlier part of the century - confirm Scotland's centralised nature. The average urban density was 3007 persons per square kilometre (compared with 1755 in England and Wales): the rural density was 20, compared with 85 (Morton, 1978).

'Four-fifths of the Scottish people live in the highly urban central lowlands - in the planning regions around Glasgow, Stirling-Falkirk, Edinburgh and Dundee. About a tenth live in Aberdeen and its hinterland. The vast areas covered by the Highlands, South Western and border regions contain the remaining tenth, (ibid, 800).

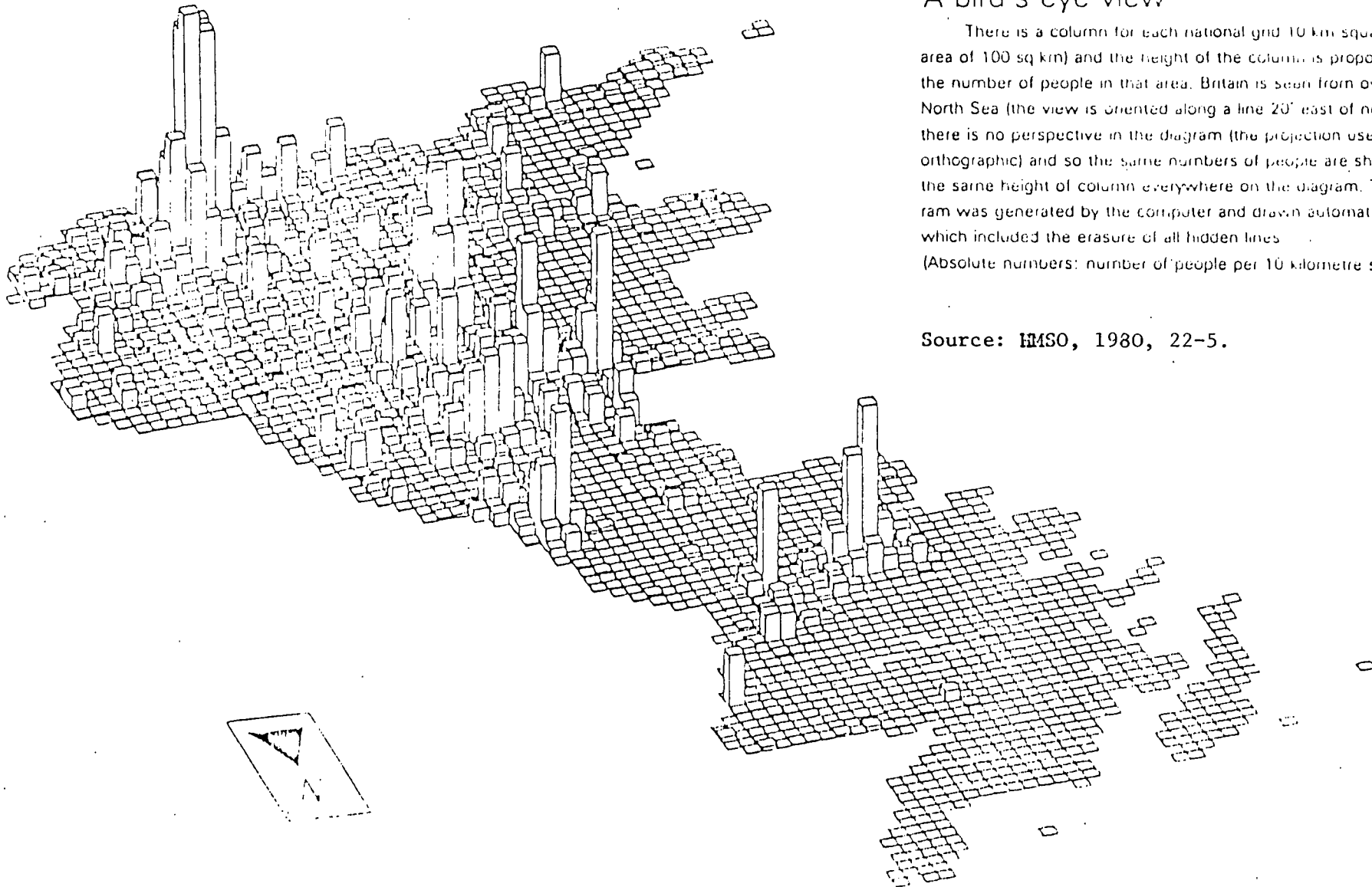
This concentration and the isolation effect of the sparsely-populated Border countries, is clearly visible in Fig. 4.1. In the Highlands, with its population of 283,000 in an area of 14,500 square miles, the average density is less than 20 to the square mile while that for the rest of the U.K. is 95, and for central Scotland is 910. Although the highlands consist of 20% of the U.K. land area,

Fig 4.1

Population per 10-km Square: A bird's eye view

There is a column for each national grid 10 km square, (an area of 100 sq km) and the height of the column is proportional to the number of people in that area. Britain is seen from over the North Sea (the view is oriented along a line 20° east of north), but there is no perspective in the diagram (the projection used is orthographic) and so the same numbers of people are shown as the same height of column everywhere on the diagram. The diagram was generated by the computer and drawn automatically, which included the erasure of all hidden lines. (Absolute numbers: number of people per 10 kilometre square)

Source: HMSO, 1980, 22-5.



'Two-fifths of the population live in settlements of less than 1,000 people and a further one-fifth live on crofts ... For the provision of education, transport and public services in general, the sheer physical extent of inhabited country presents a difference of degree so great as to constitute a difference of kind.' (McKay, 1973, 21).

Thus the Highlands is, in a social sense, a small separate region of Scotland that has different characteristics from the rest of the country;⁽⁷⁾ while it needs special attention, there is a danger of it distorting one's perception of Scotland, precisely because of its physical scale and the extent of its problems as a declining area increasingly dependent on tourism. In fact, most Scots are willing to collude with the English whose holidays in the Highlands (and conference trips to the north) and whose reading of 19th century literature, lead to a romantic image which misses the basic truth: the main bulk of Scottish life is essentially urbanised and industrial and has been for the whole of this century.

The Emergence of Modern Scotland: 1700 to 1980

Contemporary Scotland developed out of a long and complex history, during which the country became increasingly involved in outside forces. A convenient starting point is around 1700, at which time Scotland, despite a strategic location on trading routes, was still a poor agricultural society, exporting a few basic raw materials (Lythe, 1960, 233-246). Still largely feudal with strongly independent burghs, difficult geographical conditions, weak government and protectionist trade restrictions abroad hindered economic growth of the kind beginning on the continent and in England:

(7) The Highlands are also characterised by concentrations of land ownerships: half of its 6.5 million acres are owned by 140 individuals or firms (McEwan, 1975, 236).

'The tragic dilemma of the years around 1700 was that the old economy was already moribund because it could not work without complete separation from England, and the new economy must fail because it could not work without complete integration; as the existing Union of Crowns provided neither, the nation was rapidly heading for commercial disaster' (Smout, 1963, 278).

The Act of Union in 1707 provided the beginnings of a solution, and integration into the English sphere of economic influence rapidly followed.

The Act of Union dealt not just with political links to the British state but also with fiscal and trade matters - codifying taxes and standardizing navigation privileges together with weight and measures (Lenman, 1977, 58-60). Further measures to extend English control inevitably followed the Jacobite Rising. The long process of economic integration had begun, setting up a

'unique blend of economic experiences which shaped the political and social habits of its people' (Lenman, 1977, 7).

The integration of the Scottish economy during the late 18th and early 19th centuries worked in a number of ways to stimulate a precocious industrialisation. Markets in the Americas, from geographically advantaged west coast ports, were newly available and were followed by those in China and India: manufactures could flow out, raw materials flow in (Harvie, 1977, 106-7). The failure of the '45' resulted in a more powerful, homogeneous, and less traditional elite based in the Lowlands, which was not slow to exploit such opportunities. It also resulted in improved internal communications for reasons of military security, and in a ready supply of cheap labour from the Highlands, later augmented through connections with Ireland (Lenman, 1977, 101-6).

The supply of cheap labour, combined with traditional activities like linen making and cattle breeding, was the basis of Scotland's economy until the second half of the 18th century (Lenman, 1977,

87). The country, particularly the west, was dependent on English capital and imported technology, but the opening of colonial trading in tobacco marked a new turning point, providing not only a source of capital but also a network of contacts and associated trading connections (Slaven, 1975, 24). Capital from tobacco reinforced the linen trade, and in turn provided the appropriate setting for the new cotton trade: the same merchants and manufacturers were involved in all three (Lenman, op cit, 117; Slaven, op cit, 90). The same period saw the foundation of banking system (Campbell, 1965, 135-151).

Cotton, wool and later jute textile manufacturing showed the first signs of use of inanimate power sources and factory production, together with the associated chemical industry. By the last quarter of the century, Glasgow was the premier linen town in Britain, with the power loom and the help of English capital prompting a rapid growth in cotton from the turn of the century to 1830. At the same time the primitive road system was substantially upgraded, to be followed by the railways which like England were major foci for capital and employment, although of course concentrated in the lowlands. The railways stimulated the iron industry, which expanded to the extent that by the middle of the 19th century 90% of Britain's iron exports came from lowland Scotland. The population was 1.6 million in 1801, 2.9 million in 1851, and 3.4 million by 1871: most of that growth was concentrated in West Central Scotland (Lenman, 1977, 103; Campbell, 1965, 178). The same part of the country saw a second wave of new banks, with largely Scottish directors (Scott and Hughes, 1980b, 20-25). Scottish capital was by now largely self-sustaining and could draw its technology from home and abroad.

Well before the middle of the century, a combination of world trade factors (not least the growth of Empire markets) and new technologies meant that ship-building, iron and coal had taken over as the major sectors of growth, with 60% of British steam tonnage launched on the

Clyde. Further development of the steam engine - particularly in their railway and marine applications - followed, so that half or more of the British ship-building labour force was employed in Scotland, and Glasgow was the biggest world centre of locomotive exports well into the 20th century (Lenman, op cit, 173). Steel-making developed rather late, in the 1880's, partly due to Scotland's iron ore having an unsuitably high phosphorous content, but also due to this ready market for cheap pig iron. There was no shortage of technological information: the two traditional features of an advanced education system,⁽⁸⁾ and links with continental Europe made Scotland a fruitful place for general new developments in production originating in England. It would not be an exaggeration to say that Scotland shared with England almost all of the conditions which promoted the Industrial Revolution south of the border (Hanham, 1969, 23), together with several additional advantages of her own. Up to the outbreak of the First World War, Scotland was every bit as 'advanced' as any part of Britain outside London.

Yet in less than a decade, Scotland was showing clear signs of economic distress, and was soon to suffer all the woes of the English economy to an even greater extent. The last sixty years, the life-times of the older men in the sample, have seen Scotland slip further and further behind England on almost every indicator of economic success. Why did such a dramatic turnabout occur?

(8) In 1868, 1 in 40 Scots attended a secondary school; in England only 1 in every 1300. 1 in 1000 Scots attended university compared with 1 Englishman in 5,800 (Wade, 1939, 25-33). What is more, the Scottish system paid more attention to 'practical' knowledge than did its English counterpart.

The Decline of Modern Scotland: the 20th Century

Central to this decline was the use of Scottish capital. The initial surpluses from trade and textiles had gone into indigenous development such as the railways constructed in the 1840's, ship-building and iron smelting. However, in the wake of international trade, from the latter half of the 19th century the profits of Scottish industrialisation were re-invested not in Scotland but abroad. Investment from Edinburgh and Dundee in American railways, real estate, mining and ranching from Aberdeen and Dundee in railways and commercial agriculture in the Indian sub-continent, from Edinburgh and Aberdeen in Australia and New Zealand, and from Dundee in South America, was channelled through the comparatively well-developed and effective Scottish banks and investment trusts. As a contemporary commentator remarked,

'whether this vast exportation of our surplus wealth be wise or unwise, Scotland is to a large extent responsible for it. In proportion to her size and the number of her population, she furnishes far more of it than either of the sister kingdoms ... Scotland revels in foreign investment' (Blackwoods Magazine Oct. 1884, quoted in Jackson, 1968, 297).

Lenman, who is no critic of what he regards as a natural feature of 'mature economies' estimates that 'Scottish foreign investments may have risen from £60 millions in 1870 to as much as £500 million in 1914' (Lenman, 1977, 193).

Although a parallel process was taking place in English capital (Hobsbaum, 1969, 188-192), it was more pronounced in Scotland. Nor was it an unreasonable policy of self-interest by the Scottish capitalist class: their home production was yielding a good return (allowing for trade cycles) but could not be indefinitely expanded in the home market, whereas an expanded overseas market offered new growth potential. The very success of Scottish industry was a disincentive to further investment. Furthermore, land, railways and mining were sectors with which Scottish investors were familiar, and which offered high returns

with relatively low risks. They were therefore more attractive than investment in new industrial technologies at home. Apart from the steel industry, which attracted new funds in the face of problems with iron ore supplies, and some developments in marine propulsion (ie the turbine), little new industry was established in Scotland in the sixty year period following 1880.⁽⁹⁾ As Hobsbaum has observed,

'to change from an old and obsolescent pattern to a new one was both expensive and difficult: it involved the scrapping of old investments still capable of yielding good profits ... (in favour of) new investments of even greater initial cost; for as a general rule newer technology is more expensive technology' (Hobsbaum, 1969, 188).

The result was a Scottish economy that was under-capitalised, narrowly-based on the old staple industries of textiles, ship-building, iron, and steel and coal, and largely dependent on international trade. In as far as there was a home market, it chiefly consisted of a few main industries interdependent on each other; coal and steel being largely geared to ship-building.⁽¹⁰⁾ The low wages of the labour force that had for so long helped the competitiveness of Scottish industry, meant that there was little home market for consumer goods or new housing. It was these latter markets which led the slow recovery of the inter-war years in England when after the First World War, the rise of new nations in international trade, and finally the Great Slump, had destroyed the foundation of the old industrial order.

In other words, many of the defects of the English economy were to be found in accentuated form in Scotland. Almost immediately

(9) Two exceptions were the Singer sewing machine factory in Clydebank (1884) and some generally unsuccessful small motor vehicle companies in the first two decades of the 20th century.

(10) See Slaven's account of the failure of the West of Scotland coal industry due to the coincident decline of its two markets, steel and shipping at home, and international competition abroad. (Slaven, 1975).

after the end of the Great War, production began to fall and labour was laid off. There were few alternative sources of work because what distinguished the Scottish economy was its concentration in the heavy industrial sector. These 'old staples' suffered wherever they were located in Britain, but the consequences were worse in Scotland. Most of the staples experienced absolute falls in employment, while cotton and ship-building suffered absolute falls in trade between 1920 and 1937. With most relying on exports for nearly half their markets, all saw relative falls in share of trade and proportion of the labour force employed during the period 1913 to 1937 as the staples' share of a static world trade fell from 14% to 9.8% by value (Glynn and Oxborrow, 1976, 89-90). Table 4.1 shows the decline in four major industries:

Table 4.1

Performance of four British Industries (Source: adapted from Hobsbaum, 1969, 207)

<u>Industry</u>	<u>1912/13</u>	<u>1938</u>
Shipping	12m tons	less than 11m tons
Ship-building	almost 1m tons	less than 0.5m tons
Cotton - production - export	8000m sq yards 7000m sq yards	3000m sq yards 1500m sq yards
Coal	287 _m tons	227 _m tons

At the low point of the depression in 1931/2, unemployment among miners reached 34.5%, among pig-iron workers 43.8%, among steelworkers 47.9%, and among shipyard workers 62%. 'Central Scotland resisted even the modest recovery of the later 1930's' (ibid, 208-9), not least because more even than other parts of Scotland its industries were interdependent (McCrone, 1980). The likelihood of son following father into the same job was perforce reduced.

Elsewhere in Britain, and particularly in the Midlands and South East of England, the rigours of the Depression were palliated by the development of new products in high technology industries. The

interwar period saw the introduction of the small electric motor, resulting in more flexible factory layouts, and a new complex of machine tools and engineering techniques. The internal combustion engine, artificial yarns (rayon), plastics (bakelite, casein, celluloid) and radio were all older inventions which went into industrial production. Other innovations included new steel alloys, paper based on wood pulp, and organic chemistry. While older industries changed their products, printing, furniture, leather goods and the construction industry began to gear up for a consumer market. The press, the vacuum cleaner, electric irons, cosmetics, the cinema, electric light, the department store are creations of the twenties and thirties. (11)

Comparatively little of this penetrated north of the Border until well after the Second World War. Even new ventures, such as the Argyll Motor Company, failed due to lack of a local market and under capitalisation (Slaven, 1975, 200). Scottish capital was dedicated elsewhere (with dividends severely reduced) while the absence of local consumer demand and the additional problems of transport motivated English capitalists to invest south of the Trent, let alone the Border. Scotland remained trapped in her dependence on older industries that could no longer support her until newer forms of engineering began to be established from around 1950 (Lenman, 1977, 204).

A rival interpretation has recently been advanced by Kendrick et al, who argue that:

(11) See Glynn and Oxborrow (op cit, 105-110) and Hobsbaum (op cit, 218-9) for other examples of the new consumer products. In contrast, see Harvie's account of the decline of the old staple industries in Scotland, both before and after the Second World War (op cit, 168-174).

'In terms of the pattern of industrial employment the most striking aspect of the Scottish distribution has been its similarity to that of Britain as a whole. Contrary to conventional wisdom, Scotland as a whole ranks among the least specialised regions of Britain, and in many respects, its industrial structure is the most diversified of them all, (Kendrick et al, 1983, 20) (12)

This radically different conclusion is based on examining positive percentage differences (p.p.d.'s) ie a measure of where Britain exceeds Scotland, for two time series scores: those for industrial sectors (Lee, 1979) and socio-economic groups (Payne, 1977). While the authors present a great deal of interesting material, particularly on sub-regional variations (see also Kendrick et al, 1982b), their conclusions are closely tied to the way in which they use the p.p.d. calculations. Thus their main evidence relates to male and female employment within manufacturing, in a comparison of Britain and Scotland, whereas much of the present study is concerned with male employment across all sectors in a comparison of Scotland with England and Wales. Second, the p.p.d. is a reasonable indicator of overall differences, but a poor indicator of where within a set of variations the chief source of difference lies.

For example, if we consider 1851 and 1911, Scotland had p.p.d.'s of 12.3 and 10.3 with Britain as a whole (Kendrick et al, 1983, 7 and 22). That means that there was a growing similarity between the two countries, but the nature of that similarity (or difference) was very different across the two time points. In 1851, the bulk of the differences lay in Scotland's overcommitment to textiles (44.4% to

(12) Paradoxically, one could argue that if Scotland is the region most like Britain as a whole, this suggests that it is closest to being a fully developed society in its own right.

32.2%): if we remove that industry, and recalculate the percentages for the remaining industries, the new p.p.d. is 6.2 not 12.3. In other words, apart from textiles, the two areas were not greatly dissimilar on this measure, with no contribution to the p.p.d. from ship-building, the metal trades, or mining because these have excesses in Scotland, rather than excesses in Britain (the p.p.d. could of course be calculated in reverse so that these sectors would show up directly as contributions to the Scottish p.p.d.).

In contrast, the 1911 distribution shows textiles much more in line, 19.3% in Scotland and 18.1% in Britain so removing the textile sector would not change the other percentages and therefore the p.p.d. very much. The p.p.d. of 10.3 must be produced by other variations, so that while the textile factor produces a closer similarity, that one factor masks a number of other changes. For example, mining, metals and ship-building comprised 38.8% of Scotland's manufacturing employment in 1911, as against 30% in Britain. 60 years before the respective figures were 18.1% and 19.4%.

This argument refers to manufacturing, not to other sectors, but we can extend this by using Kendrick et al's Table 6 (op cit, 27). This shows that manufacturing for 1911 (old series) provided 52.6% of Scottish employment, and 47.8% of Britain's employment. Mining, metals and ship-building therefore catered for 20.4% of all Scottish employment, compared with 14.3% in Britain as whole. Of course, that 14.3% or 2.5 million workers owed a lot to Scotland; 0.4 million or over 2 of the 14.3 percentage points.

Although the methodology used by Kendrick et al does not therefore reveal all aspects of Anglo-Scottish differences, one can nonetheless accept their first conclusion (op cit, 9-10) that at the turn of the century, Scotland was uniquely well-placed to exploit the Empire markets. Where one would wish to differ is in their analysis of

the period after the First World War, when they underestimate the extent to which Scotland remained tied to the old staples until recent times. It would be wrong however, to over-emphasise the alternative view. In the first place, as their data show, the under-representative proportions of service employment begin to disappear during this century, and most of the broad brush changes move in parallel (op cit, 27). Second, even though there was disproportionate dependence on increasingly non-viable old staple industries, there were considerable changes taking place even in - or even arguably because of - the Depression.

First, as implied above, even existing industries introduced new processes, such as the new manganese steel alloys in steel-making, and changes in hull design in ship-building. These, combined with labour lay-offs, ensured that productivity was actually increased: in fact

'productivity increases were greatest in the primary and secondary sectors of the economy ... Some of the old staple industries made remarkable increases in productivity' (Glynn and Oxborrow, op cit, 91-92).

Changes in product and production process mean changes in the type and amount of labour required.

Second, the economy experienced a drastic concentration of ownership and control. The pre-war economy, outside of heavy engineering had been

'wedded to the small or medium sized, highly specialized family-operated and family-financed, and competitive firm ... in 1914 Britain was perhaps the least concentrated of the great industrial economies. and in 1939 one of the most' (Hobsbaum, op cit, 214).

By that latter year, Pollard could observe that 'as a feature of industrial and commercial organisation, free competition has nearly disappeared from the British scene' (Pollard, 1972, 168). The combination of new technology with capital concentration resulted in new giant combines: of the top 20 firms in 1965, 19 were 20th century creations. Shell, BATs, Imperial Tobacco, and Courtaulds have Edwardian origins; ICI, AEI,

Ford, Bowater, and GKN started between the wars, a period which also saw the emergence of major banking and insurance groups. Hobsbaum argues that

'the economic concentration which took place between the wars cannot be primarily justified on grounds of efficiency and progress. It was overwhelmingly restrictive, defensive, and protective. It was a blind response to depression, which aimed at maintaining profits high by eliminating competition, or at accumulating great clusters of miscellaneous capital which were in no sense productively more rational than their original individual components, but which provided financiers with investments for surplus capital or with the profits of company promotion. Britain became a non-competing country at home as well as abroad' (op cit, 17).

These changes received active backing from the government (Stevenson, 1977, 19-21).

The occupational implications of these changes are considerable. At first between the wars and then after the Second World War, large organisations required bureaucratic systems of operation: face to face communication was replaced by written records, vastly expanding the army of white collar workers. At the same time, economies of scale permitted greater specialisation, so that new specialisms developed out of increased division of labour. As the theory of industrial society suggests, the owner no longer manages, the manager no longer buys, or does the accounts, or hires and fires, or watches over the test bench or laboratory. The age of the professional expert is born. Large organisations also have greater capital resources, so that investment in new, more expensive technologies is at least in principle much easier to achieve. This again promotes occupational change either by creating new skills (the new machining techniques referred to above, or by deskilling previously skilled manual tasks (as in large-scale furniture-making).

The third major industrial change which dates from this period is the growth of a governmental apparatus to cope with greater state

intervention in regulation, taxation, and the provision of welfare services. Government controls during the First World War had acquainted the country with the possibilities for intervention. Commissions on the collapsing coal and ship-building industries advocated concentration and reduction in capacity, which was achieved in the second case.

The Special Areas and Special Areas Amendment Acts also empowered regional development programmes to the 1930's even if their impact until the 1940's and 1950's was not great (see Slaven, op cit). Following the Second World War, Scotland as part of Britain saw the nationalisation of the power, rail, and iron and steel industries, the establishment of a National Health Service, expanded unemployment benefit provision, increased council house building, a new towns policy, a change in educational provision and greater local and national government administrative involvement in planning and regional development (see Harvie, op cit, 169-70). These new ventures, together with a leisure industry based on shorter working hours and greater affluence constitute an entirely new service sector, with new kinds of occupations, Thus the old occupational structure, tied to the old staple industries, was modified not just by their economic decline, but by the growth of whole new enterprises requiring a different workforce.⁽¹³⁾ Employment dependent on the old staples thus was in relative decline, whatever their absolute fate at the hands of market forces.

It is important to balance these general trends against the actual experiences of Scotland. Nationalisation, for example, did not

(13) The 'new' workforce was needed for example in offices, a type of work not best suited for redundant miners.

result in the central offices of the new organisations being located in Glasgow or Edinburgh (LMS and LNER became ultimately the London-based British Rail), while Shell's research and development sections are not based in Grangemouth along with its refinery. When Brunner-Mond, United Alkali and Nobels became ICI, control and the occupations of control went to England. The 'branch plant' syndrome may provide a route for Scots to high status occupations, but it is a high road that leads to England.⁽¹⁴⁾ The Scottish occupational structure is modified by concentration of capital and technological development, but because of the metropolitan pull of South-East England, less so than the theory of industrial society might suggest.

Nor does the branch plant syndrome extend merely to the control of Scottish capital by the English. From the late 1930's it has been Government policy to move 'work to the workers'. Slaven (1975) identifies 16 new Scottish factories for external companies resulting from state intervention by 1940, and the establishment of new towns (Cumbernauld, Glenrothes etc) and a vigorous campaign following the publication of the Tothill Report (1961) saw an influx of international - and particularly American - capital. 10 American firms set up plants during the 1940's, and the total was over 40 by 1960. By 1973, the number had reached 148, employing 15% of Scotland's manufacturing labour force, and almost a third of new jobs created post-war (Harvie, op cit). Firn (1975) and Scott and Hughes (1975) have also documented this shift in control of Scottish industry away from the

(14) American firms employing over 87,000 workers in Scotland hired an average of 50 Scottish graduates a year in the late 1960's (Hargrave, 1971, 32).

indigenous capitalist class. Scottish capital is now doubly internationalised; the export of capital at the end of the last century has been matched by the import of capital in the middle of the 20th century.

The introduction of foreign capital under Government schemes helped to build up light and electrical engineering during the 1950's and 1960's, and went some way to lay the basis for localised developments in electronics in the 1970's. It has not, however, been without problems. Firms like National Cash Register in Dundee, or Singer in Clydebank, provided largely female employment so that male unemployment is not 'solved'. Nor are the long term prospects assured. In the face of recession, branch plants are vulnerable to closure decisions taken elsewhere: NCR, Timex, Singer, and Monsanto are but a few of the major companies which have developed subsidiaries on the basis of fiscal inducements, only to close down their Scottish operations while maintaining their original operations intact when world trade contracted in the 1970's. The new plants provided only a limited range of occupations (management was almost always introduced from outside Scotland) for only a limited period. They did not form the basis for careers or life strategies.

To some extent, the same use of foreign investment was also made in England, in areas like the North East, and in South Wales. However, the large English-based combines were able to operate in a larger market and the greater diversity of the English economy cushioned many of the upheavals. The Scottish economy remained less diversified for much longer, and its industrial history over the last sixty years has constrained employment opportunities, so giving the Scots a distinctive set of mobility life-chances if they wish to work and live in their own country.

Industrial Employment

This can be seen by contrasting industrial employment between Scotland and England (where developments happened 'faster') and between the Census years of 1921 and 1971 which bracket the life experience of the men in the Scottish sample. 14% of Scotland's workforce was directly employed in 1921 in ship-building and iron and steel production, with a further proportion in allied trades, which was serving the needs of these two groups. The rest of the economy was relatively undiversified:

Table 4.2 A comparison of the Industrial bases of Male Employment in Scotland and England and Wales, 1921 and 1971

	1921		1971	
	SCOTLAND	ENGLAND AND WALES	SCOTLAND	ENGLAND AND WALES
Agriculture, Fishing	12.1	8.9	5.7	3.3
Mining, Quarrying	11.5	10.1	2.6	2.5
Ship-building, Iron and Steel	14.1	5.4	6.1	3.4
Other Engineering	8.6	10.5	13.7	11.2
Textiles, Clothing	5.3	7.1	3.0	3.2
Food, Drink, Tobacco	3.2	3.2	4.4	2.8
Other Manufacture	6.5	7.5	8.4	17.5
Building	4.3	5.9	12.3	10.3
Transport	9.7	9.6	8.7	8.6
Distribution, Commerce	12.1	14.0	13.1	15.0
Misc., Service	3.6	7.8	6.5	7.2
Professional Services	2.3	2.3	7.2	6.9
Admin and Defence	6.4	8.1	7.9	7.4
Other	<u>0.1</u>	<u>0.1</u>	<u>0.3</u>	<u>0.6</u>

n = 1,521,337

n = 12,127,118

n = 1,350,100

n = 13,681,450

As Table 4.2 shows, more Scots worked in primary industry (including mining) than in England and Wales (23% to 19%) and fewer in general manufacture, other engineering trades, distribution and commerce, public administration and defence, and miscellaneous services. The service and distribution sectors are also noticeably different: in Scotland, these were just under 25% of all male jobs; but in England and Wales they made up 32%. At the start of the contemporary period then, the two economies were structurally different, although of course each area was contributing economic functions to the other (see also Jones, 1977, 402-3).

By 1971, the national differences had changed. Primary industry had shrunk to less than 7%, and showed only a small excess over the England and Wales figure. General engineering was now more important in Scotland, while ships and metals had virtually disappeared. Although services and distribution still provided more employment south of the border, the difference had decreased to only a couple of percentage points. The two countries had become modernized, and in that respect more alike (see also Kendrick et al, 1983).

This process of change since 1921 has not been a simple or uniform one. Agriculture and Fishing have dropped from just under 184,000 jobs to 76,800; Mining from 175,000 to 35,620; ship-building and steel (currently under further review) from 214,500 to 82,800. In 1921, these three sectors had over 38% of Scottish jobs. By 1931, at a time of massive unemployment, only Agriculture and Fishing was holding its position while the other two industries had contracted to about 75% of their previous size. By 1951 all three were in decline and this has continued to the present; it has steepened slightly between 1961 and 1971. At the latter census, only 14.4% of male Scots were working in the three industries which had formerly provided 38% of the jobs.

Table 4.3 Industrial Base, Scotland 1921, 1951, 1961 and 1971
 (excluding out of work) - Male Jobs.

	<u>1921</u>	<u>1931</u>	<u>1951</u>	<u>1961</u>	<u>1971</u>
Agriculture	12.1	13.1	9.6	7.8	5.7
Mining, Quarrying	11.5	8.6	6.4	5.6	2.6
Ship-building, Iron and Steel	14.1	6.3	8.6	7.8	6.1
Other Engineering	8.6	6.8	12.4	11.4	13.7
Textiles, Clothing	5.3	4.7	4.0	3.2	3.0
Food, Drink, Tobacco	3.2	3.5	3.9	3.3	4.4
Other Manufacture	6.5	7.6	8.4	7.9	8.4
Building	4.3	6.4	9.5	11.0	12.3
Transport	9.7	11.2	10.0	9.9	8.7
Distribution and Commerce	12.1	16.8	12.3	14.1	13.1
Misc. Services	3.6	5.5	3.7	5.9	6.5
Professional Services	2.3	3.9	4.1	5.3	7.2
Admin and Defence	6.4	5.4	7.0	6.4	7.9
Other	<u>0.1</u>	<u>0.2</u>	<u>0.1</u>	<u>0.4</u>	<u>0.3</u>
	n =	n =	n =	n =	n =
	1,121,337	1,253,403*	1,526,754	1,504,210	1,350,100

* Source: 1951 Census reports, Table L, p XXIX adjusted totals, except for Ship-building and Iron and Steel, which are not available in this form, and are therefore unadjusted. In the 1931 Census 65,788 men "in" these industries were jobless, and only 80,188 were in work - an industry unemployment rate of over 45%.

Any career structures or life plans based on the organisations in these industries would have required major re-orientation.

The other industries of Scotland show a more mixed pattern. Transport has fluctuated narrowly around the 10% mark, which is not unlike England and Wales, while Textiles and related trades have declined consistently from 5.3% to 3.0%. Only Building and Professional Services show a consistent increase, with both being nearly 3 times as important in 1971 than in 1921.

Although these clear trends are more appealing, the remaining industries are of interest in a different way. 'Other engineering', Foods, 'other manufactures', Administration and Defence, Distribution, and Miscellaneous Services all show variations over the period. 1961 seems to mark a relative and absolute fall-back on steady growth, and while 1971 had in the case of the first four of these industries shown a recovery of their growth, the inter-censal contraction and expansion has been between 12,000 and 25,000 jobs in each industry. Distribution and Miscellaneous Services have troughs in 1951 and the former a compensating peak in 1961. This may be an elaborate way of saying what should be obvious: a modern industrial society not only goes through booms and depressions, and changes in its structural balance, but that its various sectors display trends of expansion and contraction at varying rates.

Although there are no very clear patterns, there is an interesting underlying current of change which can be detected by calculating percentage differences between censuses. The largest difference (in p.p.d. terms) is between 1921 and 1931: as Table 4.3 deals with those actually in work, this is not surprising, because as argued earlier unemployment was differentially associated with various industries. Next in magnitude comes the twenty-year gap between 1931 and 1951, but if this is averaged out by dividing it by two, the mean

decadal rate of change is half that of the 1920's, and what is more, about the same for the 1950's, ie about 7 percentage points. Finally between 1961 and 1971, the pace of change increases to a p.p.d. of over 10. A similar conclusion is drawn by Kendrick et al (1983, 12).

But as we have just seen, these p.p.d.'s are made up of a range of sectoral changes. The main changes can be listed as follows:

Table 4.4: Main Sectoral Changes

<u>Census Period</u>	<u>Increases</u>	<u>Decreases</u>
1921 - 1931	Distribution and Commerce	Ship-building, Metals, Mining
1931 - 1951	Building, other Engineering	Distribution and Commerce, Agriculture
1951 - 1961	Building, Services	Agriculture
1961 - 1971	Building, Services, other Engineering	Agriculture, Mining Ship-building

This shows that both new employment opportunities, and reduced opportunities in other fields, varied, so that men starting work at different periods would have different experiences. Not least, the opportunity structure typical of the earlier years, in heavy industry and agriculture, is replaced, and services become a feature, particularly in the 1960's when the rate of change increased.

Lesser and Silvey (1950) have argued that the inter-war period was marked by several kinds of industrial decline. Not only were the old staples in decline - as they were elsewhere in Britain - but of equal importance was the failure of the 'expanding manufacturing industries' to expand as rapidly as in the South. This they attribute largely to product failure, ie a failure to produce the right kinds of goods for available markets. Product failure was compounded by 'contagion': particularly in an economy dependent on a small range of

industries, poor performance by even one large firm depresses local demand, dragging down both those trades servicing the key firm, and those not directly connected but reliant on the local market (1950, 173-4). Lesser and Silvey, and Jones (1977) talking about 1971, also make the point that within industrial classifications are contained considerable variation of product and organisation: for example the Scottish iron and steel industry relied on older labour-intensive production methods to produce relatively old-fashioned alloys, and the branch plant syndrome referred to above means that Scottish plant employed more workers and fewer managers than did equivalent factories in England. Jones appears to give these technological and organizational factors a larger part to play in sectoral composition. Having examined the 1971 Census socio-economic and industrial order data using shift-share analysis to identify between industrial sector, and use of occupations within sector, differences, he concludes that,

'Scotland's relative excess of 'undesirable' jobs has been, in the recent past, due as much to the internal structure of her industries as to the industrial distribution of the labour force' (Jones, 1977, 405).

Kendrick et al (1982b, 1983) adopt a similar position, but do not advance an explanation for why the occupational structures differ if it is not due to industrial composition. Their analysis deals with the period 1961 to 1971 in some detail (1982b, 95-132) leading to the conclusion that for this particular decade, while professional and scientific services (notably Health and Education) were a very important industrial factor, and one can discern the beginning of new technological innovation that was to follow,

'For the non-manual groups it is safe to say that the occupational component of change predominated ... for male manual workers, industrial change tended to be the main factor although the effect of occupational change was almost as great' (op cit, 95).

Although the Kendrick et al analysis may appear to emphasize the occupational rather than the sectoral, it would be wrong to attach too much weight to this. First, their evidence by no means dismisses the sectoral effect, and second, as we have seen, the 1960's differ from earlier decades. One cannot extrapolate from one to the other. A third factor to be born in mind is that the occupational effects and the industrial effects are products of particular historical processes which have operated differentially in the two countries, not least because of their close proximity and mutually interacting histories. There remain two other aspects of those histories which might arguably effect mobility which can best be dealt with here, before exploring occupational change in more depth in the next chapter.

Not working in Scotland

The two outstanding issues are unemployment and emigration, both of which can be seen as outcomes of limited occupational opportunity.

Table 4.5 gives unemployment rates for Scotland, which are consistently higher than those in Britain as a whole, and even by current standards, exceptionally high in the years 1923 (the first year of reliable figures) to 1939 during which time the rate was never less than double figures, with a peak in 1932 when one in every 4 Scots was out of a job. Since the Second World War Scottish unemployment has run at twice the British average. In general, the difference in rates is greatest in 'good times': only in 'bad times' does the rest of the British economy begin to approach Scottish rates. Thus the lowest post-war Scottish rate (2.4%, 1955) is only matched by the two highest years for Britain as a whole (2.5%, 1963 and 2.4%, 1967). The most recent figures show no change in this relationship.

Table 4.5 Unemployment Rates, Scotland and Britain, for Selected Years.*

	<u>Scotland</u>	<u>Britain</u>		<u>Scotland</u>	<u>Britain</u>
1923	14.3	11.6	1946	4.6	2.4
1926	16.4	12.3	1950	3.1	1.5
1927	10.6	9.6	1955	2.4	1.1
1930	18.5	15.8	1959	4.4	2.2
1932	27.7	21.9	1963	3.8	2.5
1935	21.3	15.3	1965	3.0	1.4
1939	13.5	10.3	1967	3.9	2.4

* Adapted from Kellas, op cit., Table 9, p 243.

It should be noted that male unemployment runs consistently higher than total unemployment, although not at a constant level of difference. See H.M.S.O., 1971c, Tables 165 and 166.

Unemployment in Scotland would have been even higher, had not emigration taken place on a large-scale. In as far as there was a Government policy to tackle the situation after the First World War, it consisted of the hopes of the Cabinet that a simple outflow of population, particularly to Canada and Australia, would solve the problem. Until the changes of policy brought about by the Depression, this might have worked. Large numbers of the Scots have emigrated.⁽¹⁵⁾

The question of emigration brings us full circle to this chapter's initial concern, namely the notion of Scotland as a unit of analysis. For purely pragmatic reasons, the chances of mobility that are

(15) Since the First World War, Scotland has lost approximately 1,300,000 emigrants to the five most favoured destinations of the 'White Commonwealth' and the U.S. The figure is based on data supplied to the author by the Embassies and High Commissions of the countries, and is necessarily to be treated with caution. About 8% of the Nuffield Mobility Sample had been born in Scotland.

discussed in this study are those for people working in Scotland. The Scot born and bred north of the Border who leaves his native shores to work abroad, or in England, is excluded, even though he was once potentially part of the original supply side of the Scottish labour market at one time and is now part of the supply in another place. Of course, this problem is not unique; any national study has the same difficulty, although it is almost universally ignored (see for example Halsey et al (1980) and in particular the index). It only assumes prominence here because of the scale of Scottish emigration between the wars. We have the unusual situation among mobility studies, of a society which has had a declining male workforce⁽¹⁶⁾, so that we need to consider if this creates any special conditions for mobility. Even if the migrants are excluded, what effect did their moving have on those who stayed behind?

The first thing to establish is that, despite emigration, there has been a surplus of male workers over jobs, as evidence by the high unemployment rate. Thus there is not a congruent decline of men and jobs so that the opportunity structure remains constant. Second, at a commonsense level, industries contract by shutting down plants and making men redundant. In milder forms, posts are frozen: chances to change posts are restricted and without growth of establishments or technological innovation, promotional avenues are blocked. The supply of men remains constant (or increases): the supply of occupations contracts. The work force is thus confronted by a worsening of its position in the labour market - and thus a worsening

(16) Despite a higher birthrate between 1921 and 1971, the Scottish population grew by only 350,000 or 7.4% compared with 28.6% south of the Border; it fell from the equivalent of 12.9% of the population of England and Wales to 10.7%. The male labour force declined 170,000 over the same 50 years.

of its class position. While strongly-unionised occupations may resist longer, and white-collar employees with contracts hold on in greater security, the events between the two wars were of such a scale as to outweigh the power of workers' organisation, while the Trade Union's political party did little to intervene.⁽¹⁷⁾

In the general Depression between the wars, there were then two classes of depressed worker: the unemployed and those whose mobility chances were restricted. Which provided most of the emigrants is an open question, but inevitably some of the leavers were highly-trained, impatient of constraint, and with ambition: the would-be occupationally mobile.⁽¹⁸⁾ At first sight, this may appear to reduce upward mobility rates further, since the "successes" would disappear from Scotland. In fact, drawing on economic ideas, this is not necessarily so. If, in a situation of unemployment, a man leaves a job to emigrate, this creates a vacancy for someone who is unemployed to fill. This emigrant ultimately removes one unemployed man from the region. His post may be filled by a promotion, or by a new hiring: in both cases it may admit

(17) Despite the strength of the Labour Movement in Scotland, the close identification of Clydeside's M.P.'s with the I.L.P. meant that Scotland was effectively a political wilderness even in the early days of Labour Government.

(18) This is not to argue that migrants are the 'best' of any society, and that the less able, less educated, less imaginative and less achievement-oriented are left behind. Such an impression - to be found for example in Erikson (1972, 22-24), Blau and Duncan (1967, chapters 6 and 7) or Uhlenberg (1973, 296-311) - owes much to the conspicuous success of English-speaking migrants to the USA (as against the less successful European Peasant migrant - see Richmond (1969, 267-296) and Thomas (1973, chapter IX)). It also reflects the fact that internal migration over long distances is primarily a middle class phenomenon, because of the organisational contexts of many middle class jobs (Watson, 1964, 149 and 153-4; Payne, 1973b). It is typically such 'organisation men' who cannot directly inherit their positions, and therefore are recruited from a wider range of backgrounds. Not least, most sociologists fall into this latter category, and maybe predisposed to see all migrants as 'stars'!

someone poorer qualified, or equally qualified but younger than his predecessor when he started. So the net effect is to allow easier access to the vacated post, much as in the manner of the American South where whites at given occupational levels have lower educational qualifications than whites in the North.

But this is to assume that the post is filled. Between the two wars this was not always true. Thus, while stayers could be expected to have higher achievement for, say, lower qualifications this would not be as marked in the inter-war period as in the American South where a power structure exists to reinforce their position. A second point is that every man who leaves removes his spending power from the country, so reducing demand. Thus

'there will be a multiplier effect on employment; and my guess is that, in a typical British region, one extra man will lose his job for every six or seven who go elsewhere' (Brown, 1969, 236).

This again will restrict the "White-Southerner Effect", so that if there is an effect, it can be looked for in the latter 20 years, rather than earlier. The loss of migrants, then, sets up a number of processes, both increasing and decreasing mobility with the result that their empirical detection is almost impossible, even if this represents a further distinctive feature of Scottish society.

Scotland: a separate unit of analysis

The strong emphasis on grounding the mobility analysis in Scottish social conditions, which as Appendix II explains, has been one of the distinctive features of the present study, is the outcome of an empirical and historical perspective on social events. Such an approach relies more on the concrete than the abstract, and the absolute complexity of social life seems to the author to demand descriptions and explanations that may sometimes be lacking in generality but are at least grounded in everyday experience. It may also owe something to a

resistance to an over-metropolitanised and simplified view of British society.

The argument that Scottish society has a characteristic institutional and cultural existence and history, made in the first part of this chapter, seems well established. The argument for an analysis of economic phenomena on a separate basis is less clear: it can only be justified in terms of Scotland's connections with international capitalism, and the historical effects of its integration into that world-system, in particular with the English economy. This argument lies midway between the view that Scotland has been dependent on, or subordinate to English interests since the Act of Union (Dickson, 1980, 90) and the contrary view that Scotland's development is best understood as an example of an industrial society, only marginally connected to England (Kendrick et al, 1983, 21). The position adopted is closer to Lenman's judgement that Scotland has 'developed a very specialised regional branch of the British economy' (1977, 204), an economic position overlaid with cultural specifics so that Scotland can be treated separately (but still within a wider framework of international markets and capital flows).

Thus the second half of this chapter has tried to explore features which make the Scottish economy unlike the English. This has served three purposes. First, it has shown that one cannot simply generalise from one country to the other - as Goldthorpe (1980) implies. Second, even if Scotland can be neatly classified as an 'industrial society', there are variations within that type that require consideration. Finally, since Scotland is regarded as both typical and unique, a separate analysis of her occupational structure and mobility is justified.

CHAPTER FIVE

Scotland: the occupational structure

A discussion of industrial employment, although commonly used to depict occupations (see Chapter 3 above), provides only a partial picture of how groupings at various skill levels have expanded or contracted. The Census, albeit with confusing changes of categorisation, can be adapted to produce a decennial time-series which deals directly with occupations. This forms the basis of the present chapter, and can be used both for reference in the later analysis of occupational mobility, and as an empirical 'test' for the theories outlined in the previous two chapters. The census data for the years 1921 to 1971 (1941 excepted) cover the working lives of the men in the sample (the oldest respondent was born in 1909 and began work in the early 1920's) and also coincide with the economic and social changes that have been discussed in the last few pages. It should be remembered however, that direct comparison between census data and the sample data reported later cannot be made for technical reasons of classification, time points, and ages of the populations concerned.

A number of sources are already available for an examination of this period. Routh (1951) deals with the years up to 1951 (and subsequently to 1971 (1980)) while Bain (1972) has extended the analysis to include the 1966 sample census. However, both deal with Great Britain as a whole. More recently Goldthorpe and Llewellyn (1977) and Brown (1978) have produced tabulations for England and Wales. None of these quite meets present needs, so that it is necessary to return to the Census Reports and carry out a re-analysis⁽¹⁾. This is a very time-consuming operation and care needs to be taken to ensure continuity in categorisation, as classifications have changed several times, most notably in 1951 and 1961 (see below).

(1) Although the censuses have recorded occupations (with some modifications) since the 19th Century, its use of larger aggregates of similar occupations is a recent innovation. 'Social Class' tables were first prepared for 1951, and then significantly changed in 1961, which year also saw the introduction of 'Socio-Economic Groups'. These in turn were redefined in 1971. Therefore to present a summary of occupational change in a manageable form requires a reanalysis of the original occupational tables.

The units chosen for the analysis are based on the Registrar General's Socio-Economic Groups (SEGs) as used in the 1971 Census (HMSO 1971a). This schema identifies 17 groups on the basis of their occupations and the status attached to them. Like all occupational classifications, they have their minor peculiarities (Bechhofer, 1969, Hope and Goldthorpe, 1974, 22-7); in this account 'armed forces' (which does not differentiate officers from other ranks) and the residual category 17 of 'unclassified' persons are discarded, and the very small numbers in the 'large' proprietors and managers category (SEG1) have been merged with the 'small' proprietors and managers category (SEG2). (2) This leaves 14 categories. Previous census Occupational Tables were then reprocessed to obtain comparable groupings. To achieve this requires the re-classification of over 900 occupational categories, each with four or more grades of seniority, at each census point. Obviously, the level of comparison with which one works is limited: if it is too precise, the accuracy of the reconstruction becomes crucially important, whereas if it is too general, the point of the exercise is lost. (3)

As noted below (footnote (4)) this use of census material is not without its problems. As Kendrick et al have observed prior to using the data presented in this chapter (and published in a recent paper: See

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- (2) Although the SEGs contain an 'own-account workers' category, the classification does not otherwise differentiate between those who own and those who merely manage enterprises. Its blindness to property obviously restricts any consideration of ownership, or the managerialism thesis in the present context.

Full details of the SEG classification are to found in the Classification of Occupations 1970 (HMSO 1971b), but the labels used in this section should be self-explanatory.

- (3) The generation of the time-series is onerous, requiring great arithmetical care, rather than difficult. It took several man-weeks of work for the author to devise the method and produce the figures, and almost as long for a colleague, John Mackenzie, to replicate the process using the same procedures (incidentally producing identical totals). The prefaces to the reports and later the classifications of occupations give a great deal of guidance about modifications of definitions (the 1961 Census General Report (HMSO 1968, 184-193) is particularly useful). The author also discussed his time-series with personnel at Titchfield and Edinburgh who had long experience of occupational coding, to mutual agreement on the interpretations made. The essence of the comparability problem lies in the changes to classifications in 1951 (1921 and 1931 are very similar) and again in 1961 (1961 and 1971 are also very similar ...

.../(3) Contd.

Payne 1977a), there are two types of problem with such an exercise. The first is methodological: without returning to the original raw data, the earlier census information can never be exactly translated into the 1971 categories. However careful and detailed one may be with the technical procedures,

'All one has to go on in performing the translation are common-sense assumptions of continuity between meanings, the concrete referents, of the component occupational titles of the two classifications' (Kendrick et al 1983, 17).

The second problem is an epistemological one. Even if one could solve the technical difficulties, the time-series still requires acceptance that the same conceptual category can be applied to phenomena fifty years apart. Industrial change changes the content and standing of occupations, so that only a detailed historical examination of every occupation over 50 years could even begin to tackle this problem of historical comparison. The reader must therefore proceed with all due caution, recognising that as in all such time-series, the new data can provide only a basic outline of a very complicated process.

(3) cont/ at an occupational level). The method adopted was to take each entry in the early tables, and to search for its closest equivalent in the Classification of Occupations 1970 (HMSO, 1971b). In the vast majority of cases the same titles occurred in both; for example 'rivetter' can be found in both, even if the specific work tasks have evolved in the interim (code 146 in 1921 and code 021 in 1971). The 1921 rivetter can then be allocated to the same SEG as his 1971 equivalent by consulting the SEG listings at the rear of the Classification of Occupation 1970. Fortunately the earlier published tables use a more detailed listing of occupations than do modern reports; 1921 has over 900 occupational categories, reducing to 600 in 1951 and around 200 in 1961. Thus the data are presented in greater precision for the tables requiring modification, with over 900 row entries in an occupational table running to nearly forty foolscap pages for the national level count. (see Census 1921 Scotland Occupation and Industries Report pp 12-50). This wealth of information for the early years makes it easier to identify equivalents and to aggregate accurately into the 1971 SEGs.

One limitation to this process concerned managers. The tables do not distinguish between managers of large and small operations. This distinction in the later tables was therefore abandoned to maintain comparability at the expense of detail. The result may be to inflate the number of 'real' managers with wide responsibilities. After 1921, tables show managerial status crosstabulated against occupation, so that there is a check against any person exercising managerial functions being omitted because the word 'manager' was not part of their main job title.

The general format of the SEGs identifies six groups of non-manual workers and five groups of manual workers. The former consist of proprietors and managers; self-employed professionals; employed professionals; semi-professionals (including technicians and white collar supervisors); supervisors; and junior non-manual workers-mainly clerical. Manual workers are grouped into skilled workers; semi-skilled workers; unskilled workers; agriculture workers; and personal service workers (mainly servants and catering employees). The three remaining groups are large farmers (with employees), small farmers, and 'workers on their own account' (i.e. the non-professional, non-farm, self-employed). For convenience, the exact SEG titles used below are slightly different from the census but this is intended as a convenient shorthand: the SEG number remains the same.

The advantages of these categories should be fairly obvious. Since the debate about 'skill levels' in modern society has been conducted in an imprecise fashion (see Chapters 2 and 3) there is no guidance as to what, say, an 'upgrading of skill levels' means or does not mean in empirical terms. At least the SEGs provide a specific framework in which to identify 'skilled manual workers' as having - or not having - the

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3. Contd. The same cross-referencing is possible for foremen and supervisors from 1931 on, while 'working on own account' is a concept used throughout (SEG 12 in 1971). SEG 11, unskilled manual work, consists of jobs insufficiently specified to warrant a title: it is possible that amalgamating 'labourers' and 'other workers' may, with the reclassifications of 1951 and 1961, produce some artefactual error in the boundaries between unskilled and semi-skilled manual workers (SEG 10).

In all cases, the data refer to the population in or seeking work. This condition, which later Censuses refer to as 'economically-active' excludes those in full-time education or who are retired, but includes the unemployed. It therefore is not responsive to short term cyclical changes in employment such as the Depression of 1931, except to the extent that people may record themselves as workers in an occupation which in fact is a temporary expedient job, taken because they are unemployed in their main occupation. The time series, in other words, refers to an amalgam of characteristics of the labour force and the occupational opportunities, rather than to one or the other. Clearly the time series must be used with caution. But as is argued later, at the level of SEGs (i.e. in practice sub-division into 14 categories) the degree of precision required is not as great as if one used many more categories. Surprisingly few occupations per se are added or subtracted from the listings: 'crofter-fishermen' and 'crofter-farmers' were amalgamated in 1961 into 'crofters', for instance and 'computer programmer' was added in 1951. It is this continuity, together with the greater detail of the earlier reports, which provides the solid basis for the development of the time series.

level of skill to which others are upgraded. Even though the original formulations did not intend to refer to the conventions of the British Census, this course of action should at least serve to clarify the range of meanings which could have been intended. (4) At the same time, the construction of the categories are reasonably visible. In the past, the reader has been given little guidance whether one man's 'administrative employees in the non-agricultural sector' is the same as another man's 'white collar' and 'professional workers'. Most commentators on occupational transition have been willing to take such equivalences as non-problematic (see Garnsey, 1975, 308) despite a more general sensitivity to such nuances by the rest of sociology.

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- (4) One critic has objected to this kind of analysis, arguing that the changes in categorisation between censuses makes it impossible to reconstruct a valid times series, and (more suprisingly) that the whole enterprise of testing occupational transition in the Britain of this century is misguided. Jones (1977) invokes Mitchell and H. Jones' comment on the changes between 1951 and 1961 as evidence that a time series cannot be established 'even between fairly large aggregates of occupational codes'. However, the original statement runs to several tightly argued pages (Mitchell & H. Jones: 1971, 184-93) the main thrust of which is that direct comparison of the 1951 and 1961 Census class tables is not possible. Indeed the General Report of the 1961 Census contains a comparison based on a reclassification, which indicates that the census statisticians themselves were satisfied that a time series was feasible, provided it was not based on a simplistic reading of the basic occupational tables with different systems of classification.

In the second place, the quotation used by Jones refers to a table which lists 260 occupational aggregates organised into about 70 larger aggregates, which in turn are aggregated into 29 even larger occupational blocks. In this context, what do 'fairly large aggregates of occupational codes' (Mitchell and Jones, op cit, 36) emphasis added) mean? The 260, the 70, or the 29? The same section refers to some of the occupational units (the 260) as 'larger', so it is not at all clear that the Report is referring even to the 29 occupational orders. Jones has made two errors of interpretation here: the size of grouping which can be compared is much smaller than he implies, and neither Mitchell and Jones, nor the General Report, are referring to the much larger 14 SEG's which are used here.

The analysis which follows concentrates on male, female and combined distributions for Scotland, as being most relevant to a study of mobility in that country. (5) At the same time, these can be used as a case study of occupational transition in industrial society, as the concluding table below specifically demonstrates. (In all cases the figures are for civilian populations, excluding the residual 'SEG 17', viz occupations not elsewhere classified, and as specified for census enumeration).

Occupational Transition: Highly-skilled Non-farm Occupations

The first occupations to be considered are those in which expertise derives from long periods of education, both formal and informal. Since these are not all 'salaried', or 'administrative', or 'professional', they are referred to as the 'highly-skilled non-farm occupations' - a title which also avoids confusion with the lower skill levels of intermediate or manual occupations. The numbers for these at the five census points covering the sixty years since the end of the First World War are given in Table 5.1

(Table 5.1 follows on the next page)

(5) A parallel discussion of England and Wales can be found elsewhere, on which account much of the present section draws (see Payne, 1977a, 12-29)

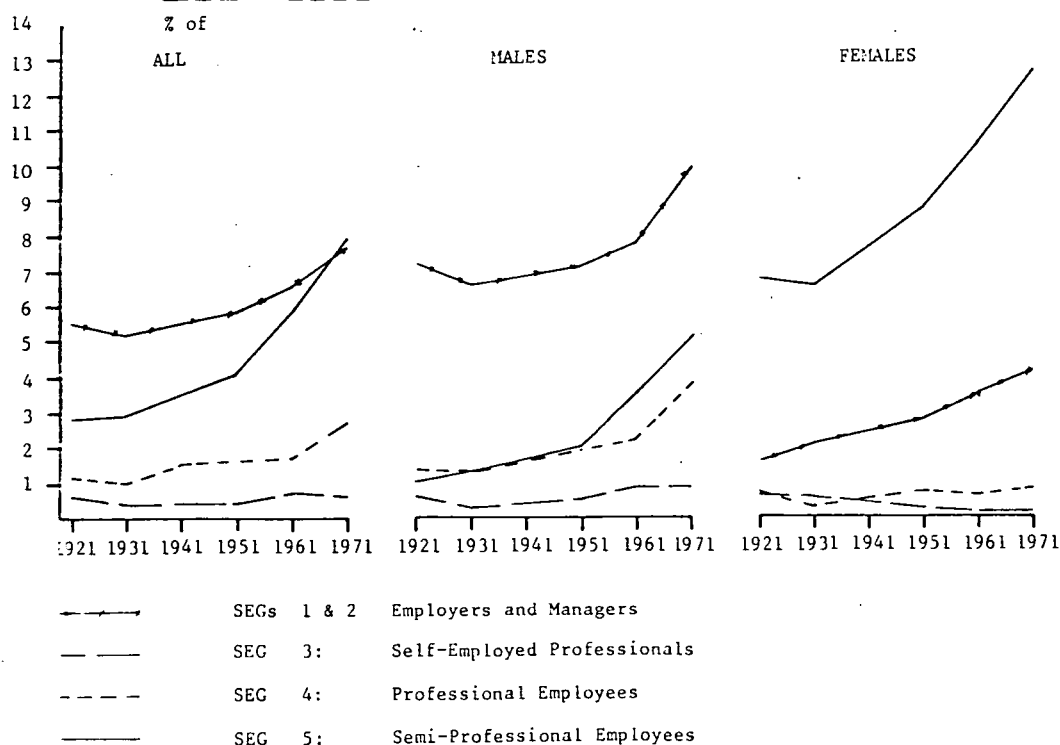
Table 5.1: Highly Skilled Non-Farm Workers (SEG 1 - 5) in Scotland, by Sex.

Source: see text above.

SEGS	Occupations	Category	1921	1931	1951	1961	1971
1 - 5	All Highly Skilled, Non-Farm	Total	214,660	206,542	262,526	332,720	429,820
		Males	152,724	143,379	177,186	224,740	282,660
		Females	61,936	63,163	85,340	107,980	147,160
1 & 2	Employers and Managers	Total	117,035	114,065	129,043	147,470	175,930
		Males	106,684	99,988	109,914	121,510	141,640
		Females	10,351	14,077	19,129	23,960	34,290
3	Self-Employed Professionals	Total	12,416	8,795	9,178	15,340	14,410
		Males	8,482	4,930	7,763	14,690	13,540
		Females	3,934	3,865	1,415	650	960
4	Salaried Professionals	Total	25,953	21,689	33,470	38,710	60,650
		Males	21,666	19,494	28,598	34,660	54,380
		Females	4,287	2,195	4,872	4,050	6,270
5	Semi-Professionals	Total	59,256	61,993	90,835	131,200	178,830
		Males	15,892	18,967	30,911	53,880	73,190
		Females	43,364	43,026	59,924	77,320	105,640
1 - 15	All Economically Active	Total	2,114,850	2,173,256	2,221,443	2,281,970	2,266,410
		Males	1,480,834	1,517,266	1,540,784	1,550,190	1,432,930
		Females	634,016	655,990	680,659	731,680	833,480

Considering first the overall totals, the most notable feature of the highly-skilled non-farm workers is their increase, more than doubling in size from 1921 to 1971, while the economically-active sector increased by less than one third. The second feature is that the four categories behaved differently: while salaried professionals and employers and managers have very similar growth profiles, the self-employed professionals did not follow that pattern after the 1931 decline, and the semi-professionals have an equally distinctive pattern, one of more rapid expansion than the other groups. This is shown in Figure 5.1: it will be remembered that there was no 1941 census.

Fig. 5.1 Changes in Highly Skilled Non-Farm Occupations, 1921-1971



These patterns do not fit the conventional model of occupational transition that was encountered in Chapter 3 above. In the first place, economic modernisation appears to have received a severe setback between 1921 and 1931, with only SEG 5 (the lowest skilled of the five SEGs) showing any growth. This is not in accord with two of the propositions that were drawn from Moore, namely that there is an up-grading of average skill levels (unless something dramatic has happened in the next skills band to weight up that average) and second, that there should be an increased demand for 'professionals' of all categories, and in particular doctors, engineers and experts in organisation'. The theory of industrial society has nothing to say directly on 'de-modernisation'; the logic of industrialism is uni-directional.

Second, the increases in this sector during other parts of the period are quite different, particularly in the latter twenty years. The theory of industrial society gives no explanation of why rates of change should vary so much in consecutive decades in the same society. If the two propositions are meant to be descriptive statements of what actually takes place, then they are inadequate in that they do not describe rates of change. If, on the other hand, the propositions are meant to be a theory of industrialisation (and it is not clear which is the case for most of the writers mentioned above) then the theory does not provide an immediate explanation of why rates of change are so varied, as inspection of the graphs demonstrates.

A further problem involves the different performance of the four sub-sectors which jointly comprise the highly-skilled non-farm work-force. These sub-sectors are not arbitrary categories but manifest an attempt to identify functionally-different occupational units. One of the key propositions calls for an increase in demand for professionals, particularly doctors and experts in organisational skills such as lawyers. In Scotland these are two self-employed professions. If there has also been a greater need for other professions (such as engineers, by the same proposition) we would also expect

at least some (the new, most specialised consultants) to join the ranks of the self-employed. SEG 3 should therefore show both an absolute and relative growth. But as Table 5.1 shows, while absolute growth has been (erratically) from 12,500 to 14,400 its relative position has only fluctuated around half a per cent - and fell in the last decade.

Conversely, the semi-professions have out-performed their highly skilled partners, overtaking the managers as the largest single highly-skilled group. SEG 5 has experienced almost perfect straight-line growth since 1951, and the semi-professions are now two-and-a-half times bigger a proportion of the labour force than 50 years ago. The propositions of occupational transition do not describe/predict/explain this exceptional growth of one particular occupational category among the professions (in the American sense): indeed, in proposing that the 'vast majority' of workers will be in the middle range of skills (the remaining part of the other proposition that is relevant here) there is no allowance for the shift of nearly 10 percent of the labour force out of the middle range of skills and into the highly-skilled sector. Once again, the propositions are an inadequate guide to the fluctuations in the basic data, and this will be found to be true for the three other broad sectors to be considered.

It would be perhaps a little unfair to criticise the theory of industrial society for not also identifying which of the highly skilled elements would expand by means of female labour. Both table 5.1 and fig 5.1 show that men and women have had separate experiences of occupational transition. Women have made little impact in any of the professional and managerial sector (SEGs 1-4) except the semi-professions. While their numbers in management have tripled, this is only an increase of around 20,000 during the time that male managers expanded by nearly 60,000. Because the males outnumber the females by more than 2 to 1 overall, the male trends are more or less the same as the

general trends already discussed, except that their growth is little higher in all SEGs except SEG 5. Even here, the expansion is from 16,000 to 73,000. (6)

Occupational Transition - The Low Skilled

To some extent, grouping SEGs 7, 9, 10 and 11 together is a little arbitrary. It could be argued that skilled manual workers, having served formal training of periods in most cases lasting up to five years in apprenticeship, should be discussed with the 'intermediate' skill sector. Again, service workers are a more heterogeneous group, and are not mainly concerned with industrial production, as are the other three. However, all four together comprise the non-farm manual sector, and most sociologists accept that manual workers share greater components of life chances than skilled manual workers share with white collar or supervisory employees. It might have been more consistent to include agricultural workers in this section so that all manual workers would be considered together, but there is more heuristic advantage to be gained in concentrating on their industrial sector and so discussing them with farmers. The numbers of workers engaged in the four SEGs is given in Table 5.2

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- (6) These data refer to women who by the census definition are employed full time. Part-timers are excluded, and information is not available to quantify this extra labour: one estimate based on Tables 1 and 24 of the 1961 Census Scotland Occupational Report shows about 85% of women in paid employment listing themselves as full time. Women out of paid work under-register themselves as unemployed: it is possible that they also under-list themselves as economically active (i.e. looking for work) in the census returns. Unfortunately, as more women have taken paid employment towards the end of our time-series, this potential error factor would have a differential effect during the fifty years. The present analysis is of course not unique in suffering from this defect, although by reporting men and women separately one source of confusion is contained. Implicit in this analysis is the idea that a woman in paid work takes on an independent occupational identity, i.e. that she should not be classified as belonging to her husband's occupational category. This seems self-evident for purposes of labour market analysis, but is more problematic when occupational categories are presented as classes. The distinct profiles of female employment are further support for the original SMS decision to consider male and female mobility separately.

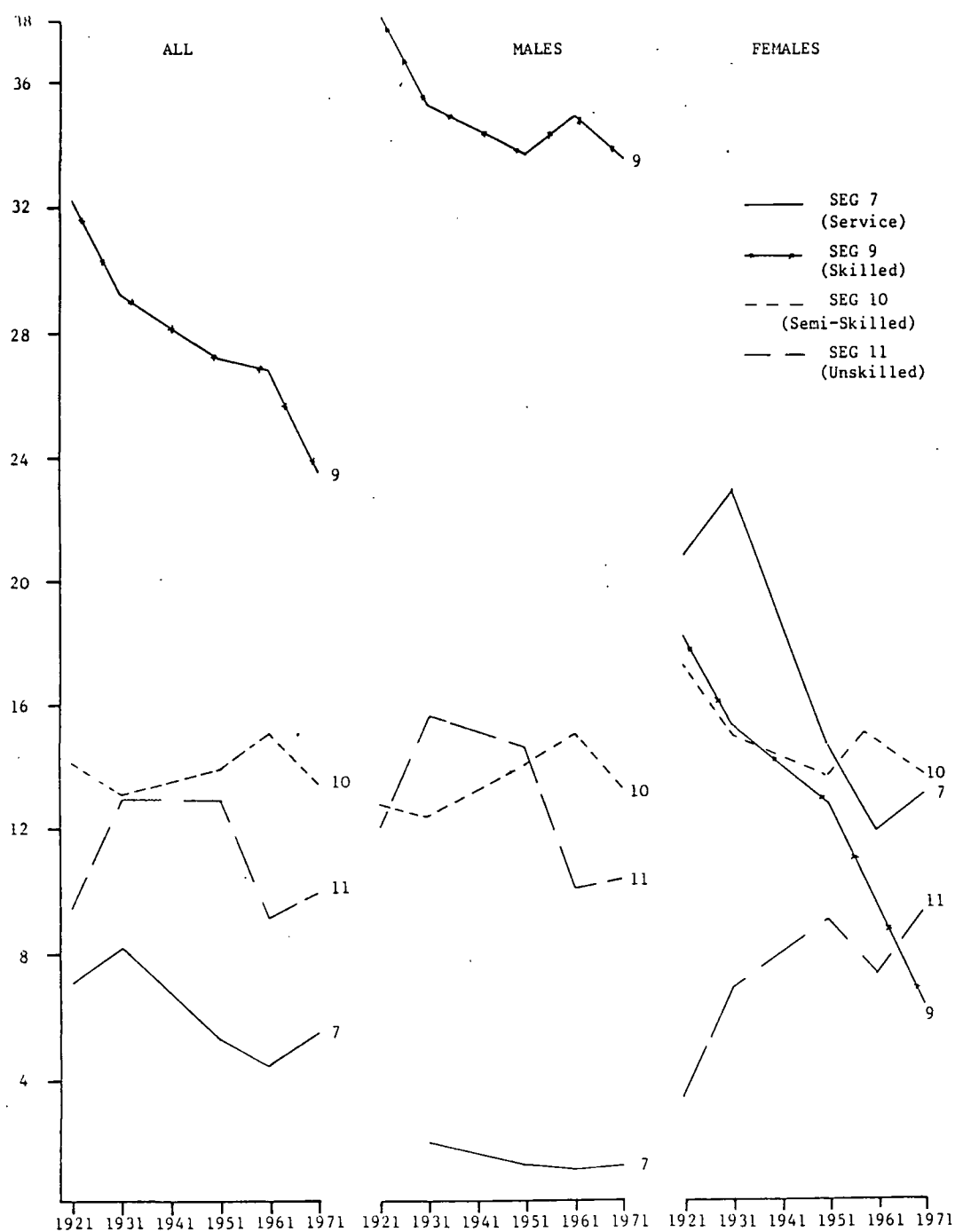
Table 5.2: Non-Farm Manual Workers (SEGs 7, 9, 10, and 11) in Scotland by Sex.

Source: see text above

SEGs	Occupations	Category	1921	1931	1951	1961	1971
7, 9, 10, 11	All Manual non-farm workers	Total	1,305,060	1,378,110	1,314,810	1,263,910	1,184,620
		Males	947,196	984,795	977,042	943,970	833,160
		Females	377,864	393,315	337,768	319,940	350,860
7	Service Workers	Total	149,232	179,219	118,443	102,180	124,300
		Males	17,643	28,810	18,360	15,480	15,880
		Females	131,589	150,409	100,083	86,700	108,420
9	Skilled Manual Workers	Total	680,306	633,385	601,890	610,990	531,560
		Males	564,570	533,850	518,387	541,210	480,080
		Females	115,736	99,535	83,503	69,780	51,480
10	Semi- Skilled Manual	Total	297,508	284,138	308,673	342,490	303,190
		Males	187,786	186,131	215,772	232,640	189,930
		Females	109,722	98,007	92,901	109,850	113,260
11	Unskilled Manual Workers	Total	198,014	281,368	285,804	208,250	224,790
		Males	177,197	236,004	224,523	154,640	147,270
		Females	20,817	45,364	61,281	53,610	77,700
1 - 15	All Economically Active	Total	2,114,850	2,173,256	2,221,443	2,281,870	2,266,410
		Males	1,480,834	1,517,266	1,540,784	1,550,190	1,432,930
		Females	634,016	655,990	680,659	731,680	833,480

The most striking feature of these data is the decimation of the skilled manual workers. Scotland has lost nearly 150,000; this represents a drop from an index of 100 in 1921, to about 78 in 1971, while the economically-active population has increased from 100 to over 107. To put this another way, had the skilled manual workers simply performed as the economically-active population as a whole did, there would have been 729,300 of them in 1971, not 531,600. Clearly the expansion of the economy was not in this sector, nor was it unequivocally in the other manual sectors either, as Figure 5.2 shows.

Fig 5.2: Changes in Low Skilled Non-Farm Occupations, 1921-1971: % of Labour Force



These four SEGs are particularly relevant to the argument that minimum and average skill levels rise, leaving relatively few unskilled workers (proposition number 5 in Chapter 3); that there is a shortage of skilled workers (proposition (6)); and that new jobs are created, while differentiation between jobs increases (proposition (3) in Chapter 3). If the skilled manual worker is treated as low-level on the skills continuum, then the 'non-farm low-skill sector' has contracted, in line with the usual transition proposition. However, the sector increased from 1921 to 1931, declined slowly up to 1951, and generally fell more sharply after that. But even this statement disguises the upturn of the unskilled manual category in the 1960's, the 30-year rise in semi-skilled manual occupations 1931-1961, and the upturn of the service worker sector since 1961. Moreover, one might reasonably expect the contraction of those sectors with minimum skills to bite first and most sharply into those with least skills - service worker and unskilled manual worker sectors - but it does not. Skilled manual workers were first and most affected, while service workers and unskilled manual workers are the two categories which have been most buoyant in the last 10 years. In this respect minimum and average skill levels do not rise in the appropriate transition pattern among the non-farm manual workers of Scotland.

Alternatively, skilled manual workers can be regarded as having 'intermediate skill level' on the occupation continuum. In this case, the long-term proportional contraction of the low-skills sector is only about 1.8% which makes Scotland an embarrassing inconsistency to the theory of industrial society. However, we are still left with the 'recovery' of these sectors post-1961, while the contraction now bites first into the semi-skilled manual category (now the most skilled of the three low-skilled sectors): the unskilled manual category is proportionately still higher than in 1921; and the decline

in this latter category is confined to the 1950's, whereas service workers decline most sharply before this, between 1931 and 1951. If the hidden hand of economic change is active for one category in this period, why is the obviously-similar unskilled manual worker left relatively untouched until the next ten years - during which time the service workers begin to stabilise? The theory does not tell us.

These data also impinge on other propositions of occupational differentiation. If an occupation becomes differentiated, it presumably becomes more recognised, more specialised, requires a more specific system of recruitment (and training), and cannot just be taken on by any casual worker. If new occupations are created, they too presumably exist in an organisational framework, and by definition must fulfill a specialised work function that is now demarcated from other occupations. Among the most highly differentiated and restricted occupations are skilled manual occupations, entered only by prolonged apprenticeship, and safeguarded by rigorous Trade Union rules (supported by management practices in many cases). But there is not only no evidence of an increase in occupational differentiation, that is, in skilled manual occupations, but the evidence shows the reverse. Alternatively, semi-skilled manual occupations - which, it might be argued are the more likely occupations for new technologies to expand, as new skills are capital-intensive even if specialist - show a long term and now accelerating decline. Unskilled manual and service occupations, with the lowest levels of skill requirement and therefore the greatest interchangeability of labour, typified by the labourer, the cleaner, and the casual all-purpose hand, show an upturn in their numbers. Among the lower skill levels, which comprise about half of the labour force, there is no evidence at this level of analysis to support the proposition that occupational differentiation is occurring, let alone increasing.⁽⁷⁾

(7) This would be in keeping with Blackburn and Mann's argument introduced above in Chapter 3 that most men are capable of doing most jobs outside of the skilled trades: occupational differentiation operates at a very minor level for SEGs 10 and 11.

While these data do not directly indicate 'shortages', or 'demand' for particular types of labour, it is difficult to see how a long term decline in, say, the skilled manual category is compatible with a 'shortage of skilled workers' - unless of course skill in this case refers to professional skill only, something which is not specified. By Moore's first proposition, that all economic operations are integrated into the national market economy, any shortage of skills should be corrected by market mechanisms. Thus, while a long term decline of a broad occupational category could be occurring, workers to fill specific occupations may be in short supply (and scarce in some regions but not others) in the short run. But one cannot imply the dominance of market mechanisms on the one hand, and then explain away a fifty year long-term decline on the other as characterising numerous localised short run shortages. Indeed, none of the writers in question even advances this 'adjustment' thesis to account for this shortage, so that one is left to assume that they see a shortage as the pre-condition for the increase in skilled occupations which they believe takes place, since these are the only two items included in the propositions. In this sense, the proposition of skills-shortage is incompatible with the proposition of market incorporation and without further evidence of whether we are dealing with a supply or demand effect, the former seems untenable.

This discussion of the less-skilled occupations so far concentrated on the perspectives derived from the theory of industrial society. It is equally possible to consider the same data as they impinge on Braverman's thesis of deskilling, in which the skilled manual worker in particular looms large.

In the first place, the decline in numbers of skilled workers (SEG 9) is as generally predicted by Braverman. However, the rest of the picture is less clear, for rather than this decline being matched by an increase in semi- and unskilled work, to replace skilled workers in new production processes, the

latter categories change little between 1921 and 1971. Taken together (in line with Braverman's rejection of the notion of a semi-skilled category) they increase absolutely, from 495,522 to 534,750, but decrease relative to the total labour force, from 23.5% to 23.3%. If we restrict ourselves to the male labour force, there is not even an absolute growth in numbers. And in the intervening years, the levels of less-skilled manual workers fluctuate with the lowest category (weighted by labourers, cleaners etc) varying inversely to the slightly more semi-skilled category. A more plausible explanation for these figures would be that entire industries lost their prominent position in the economy: for example, a high proportion of female skilled labour was employed in the declining textile trades.

At best, Braverman's thesis can be sustained in a very weak form. The degradation of labour would appear to be contained within categories, with skilled status being attributed to reduced work tasks, and therefore invisible to this kind of analysis (although see Chapter 10 below). Braverman would have to make rigorous use of this argument if he were to explain away the 215,000 increase in high skilled occupations that we saw in the previous section.

Before leaving the less skilled, it is worth noting once again the gender segregation of occupations. Not only are women much more reliant on service work (SEG 7) but the decline in skilled employment has been sharper for women, so heightening the segregation: in 1971 one-third of Scottish males were still skilled workers, whereas among females the figure had fallen from over a fifth to one-sixteenth. The number of women in unskilled work has generally been on the increase, the reverse of the trend in the other three manual categories among women. In other words, within the manual class, occupational degradation seems to be the main characteristic of the female labour force since 1921.

Occupational Transition: The Intermediate Skilled

In the previous section, it was suggested that the skilled manual worker might be considered part of the intermediate occupational sector: if this is so, then the proportion that this sector comprises has contracted in 50 years from 49 per cent to 47 per cent. This is clearly not in support of the proposition that the 'vast majority' of workers move into the intermediate categories. Only if SEG 5 is drafted out of the highly-skilled set, and down into this version of the intermediate sector, could such a proposition be upheld, but this would make sociological nonsense by combining, for instance, teachers with degrees with clerks who have no post-secondary education and manual workers who finished full-time education at the minimum school leaving age: the intermediate sector would be too heterogeneous to have any meaning, except as the residual category left once 'true' professionals and unskilled manual workers have been accounted for - which is not a helpful concept. If SEG 9 is not included, the intermediate sector so defined has grown by 6.7 per cent, but this growth hardly represents the 'vast majority' of workers. The skilled manual workers have not been included in either Table 5.3 or Figure 5.3 but readers can of course make their own adjustments if they wish.

The junior non-manual occupations show a steep, indeed spectacular growth from 1921 to 1971 of 190,000. But in the last decade, junior non-manual occupations have seen a decline in the rates of expansion: currently these occupations are about 21 per cent of the workforce. This again suggests that increases in skill levels and the supposed increasing dominance of the middle categories is not a uniform process, even if one wishes to argue that it does partially apply to the largest single intermediate category.

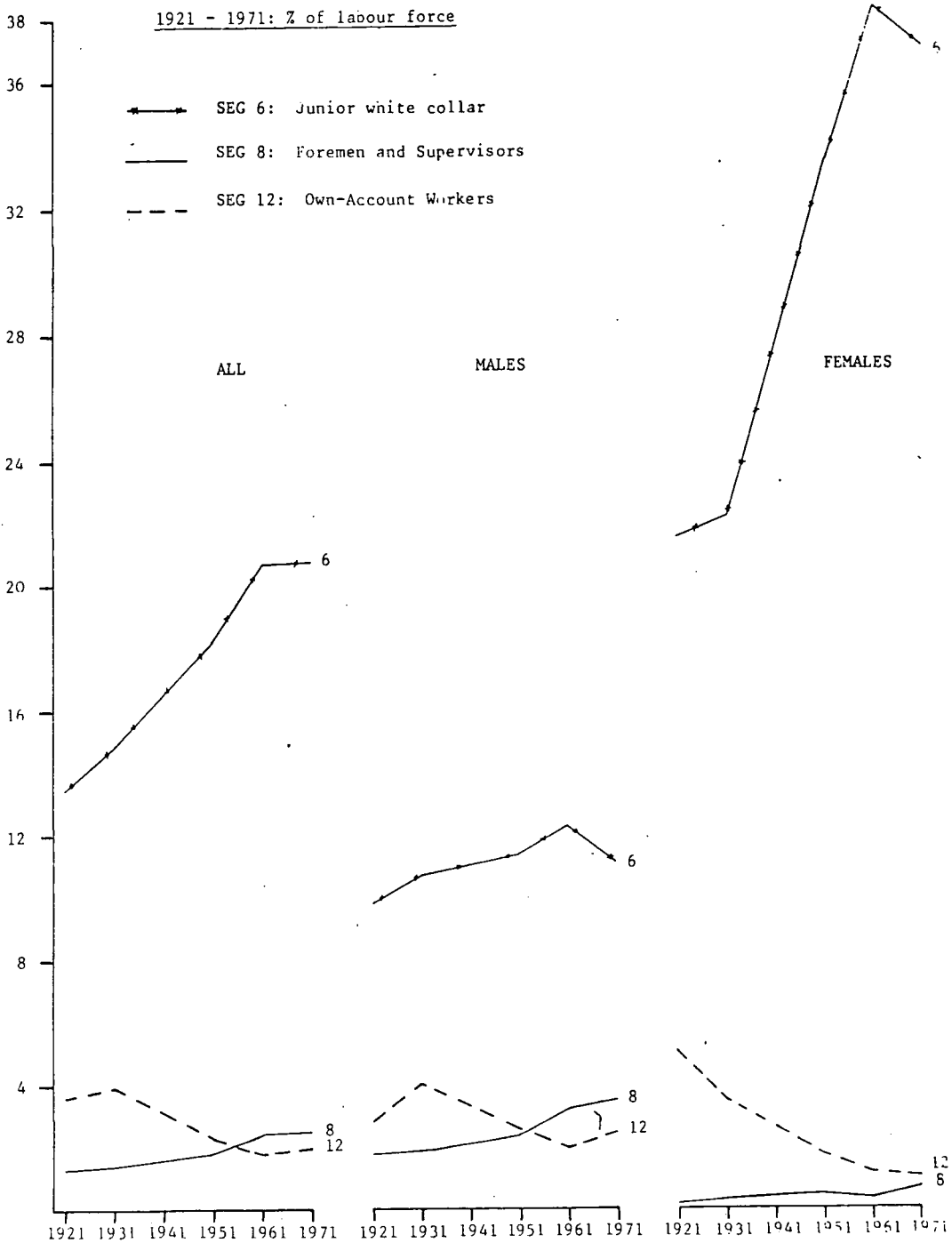
Table 5.3: Intermediate Non-Farm Workers (SEGs 6, 8 and 12) in Scotland by Sex

Source: see text above

SEGs	Occupations	Categories	1921	1931	1951	1961	1971
6, 8	All inter- Intermediate	Total	386,396	437,227	495,488	568,170	573,610
		Males	214,855	252,512	251,800	274,510	247,960
		Females	171,541	184,715	243,688	293,660	325,650
6	Junior Non- Manual	Total	282,822	320,812	403,610	473,040	472,230
		Males	145,241	161,656	175,207	191,300	161,090
		Females	137,581	159,156	228,403	281,740	311,140
8	Foremen and Supervisors	Total	27,726	30,584	40,092	54,800	56,590
		Males	26,284	28,736	36,834	51,550	51,140
		Females	1,442	1,848	3,258	3,250	5,450
12	Own- Account Workers	Total	75,848	85,831	51,786	40,330	44,790
		Males	43,330	62,120	39,759	31,660	35,730
		Females	32,518	23,711	12,027	8,670	9,060
1 - 15	All Economically Active	Total	2,114,850	2,173,256	2,221,443	2,281,870	2,266,410
		Males	1,480,834	1,517,266	1,540,784	1,550,190	1,432,930
		Females	634,016	655,990	680,659	731,680	833,480

Not only does SEG 6 show the greatest change, but it also manifests the most striking gender differences. At the start of the series men outnumber women, whereas by 1971 the women outnumber the men almost two to one. In the later decades, junior white-collar work comprises in excess of one-third of all female employment, while SEGs 8 and 12 are of little significance. This stands out clearly in Fig. 5.3.

Fig 5.3: Changes in Intermediate-Skilled Non-Farm Occupations
1921 - 1971: % of labour force



Occupational Transition: Farm Occupations

The three remaining SEGs are all agricultural (given that we are not concerned with SEGs 16 and 17). Farm employees are the biggest category, and have also experienced the major changes. The current labour force is almost one-third of its 1921 level. No other occupational category has undergone such a marked decline; farmers (and their managers) have declined to something like half of their 1921 numbers.

(Table 5.4 follows on the next page)

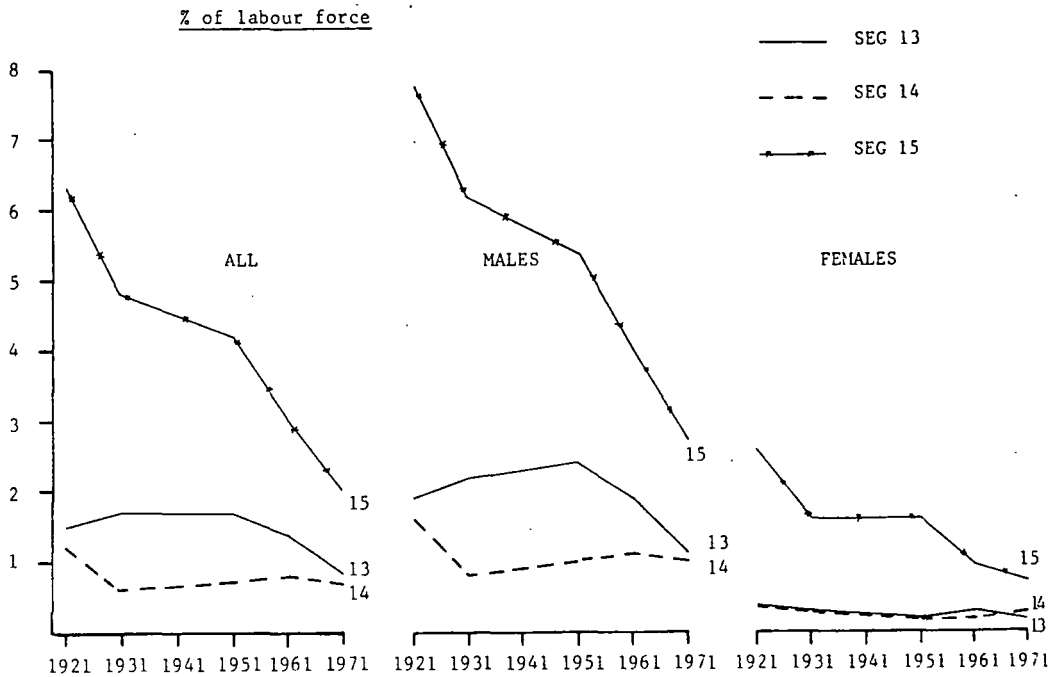
Table 5.4: Farm Occupations (SEGs 13, 14 and 15) in Scotland by Sex

Source: see text above

SEGs	Occupations	Category	1921	1931	1951	1961	1971
13, 14 and 15	All farm Occupations	Total	190,683	154,371	148,785	117,070	78,700
		Males	168,058	139,580	134,922	106,970	69,150
		Females	22,625	14,791	13,863	10,100	9,550
13	'Large' Farmers	Total	31,353	36,180	37,834	31,420	17,160
		Males	28,678	34,059	36,279	29,100	15,560
		Females	2,675	2,121	1,555	2,300	1,600
14	'Small' Farmers	Total	25,722	13,397	16,679	17,660	16,810
		Males	23,384	11,495	15,464	16,470	14,710
		Females	2,338	1,902	1,215	1,190	2,100
15	Farm Employees	Total	133,608	104,794	94,272	67,990	44,730
		Males	115,996	94,026	83,179	61,400	38,880
		Females	17,612	10,768	11,093	6,590	5,850
1 - 15	All Economically Active	Total	2,114,850	2,173,256	2,221,443	2,281,870	2,266,410
		Males	1,480,834	1,517,266	1,540,784	1,550,190	1,432,930
		Females	634,016	655,990	680,659	731,680	833,480

There has obviously been a major exodus from the land, but it has not been a uniform flow. The decline of workers slowed in the twenty years that included the Depression and the Second World War, while small farmers increased in number, as did large farmers. The scale of agricultural change is not fully reflected in these figures, as they deal only with individual persons and do not show the companies who have been the winners in the competition for land to use in large-scale agri-business concerns. Thus proposition (5), that the proportion of agricultural workers declines, is generally supported by these figures, but Scotland has experienced changes in the rate of decline for which occupational transition theory does not provide an explanation. Figure 5.4 makes this clear (note that its vertical dimension has been stretched to show SEGs 13 and 14 more clearly).

Fig. 5.4: Changes in Farm Occupations in Scotland, 1921 - 1971



While agricultural employees have declined sharply, there has also been a reduction, although less sharp, in large and small farmers. It could be claimed, albeit on very small numbers, that there have been short-run periods of expansion. It would seem that an uncritical acceptance of the proposition of a labour force transition from primary to other industrial sectors would be unwarranted, since this effect works differentially, both in terms of the groups involved, and the time-period in question. With less than 3% of men employed in farming, it is hard to imagine much future reduction in this sector.

Before leaving the set of propositions derived from Moore's work, it is worth commenting that even basic propositions can be less than explicit. The fundamental proposition of a transition of activity from primary to the secondary (and tertiary) industrial sectors may be a valid statement about 'activity' conceived of as 'number of employees' in agriculture. However, the value of the output of agriculture has been increasing at constant prices; the 1960's for example saw an increase in output of around 10 per cent, with a drop in manpower of near 25 per cent. Both absolutely and in output per man this is an increase in economic activity (Johnson, 1971, 103-4). Again, while capital investment in agriculture is only one-tenth of what it was 100 years ago, it has not changed greatly this century, consistently accounting for around 3 per cent. of the nation's total fixed capital formation (*ibid*, 199; Deane and Cole, 1962, 306). Thus while gross manpower levels have fallen in the primary sector (fishing being very much the junior partner in this sector), any changes in the balance of general economic activity between this and the secondary and tertiary sectors must be due to greater growth in these latter, rather than absolute decline in the primary sector.

Some Issues arising from Occupational Transition

In an earlier chapter (Chapter 4 above) an argument for a separate consideration of society in Scotland was advanced, and the foregoing analysis has concentrated on that line of analysis. It remains an interesting question to consider whether the occupational changes are unique to Scotland or also are true for England and Wales. At a gross level, the latter is the case, with for example the time-profiles generally congruent, and broad similarities for the major changes - the moderate expansion of the highly skilled and more rapid growth of SEGs 5 and 6 and the decline of SEGs 9 and 15. (8) This suggests that the same forces operate on the two economies. This is certainly the view taken by Kendrick et al in their extended analysis of the time-series earlier produced by Payne (1977a), although their interest lies more in the manufacturing labour market for male and female workers, rather than all sectors (but mainly for male employees) as in this study. Their account (Kendrick et al, 1982b, 86-132) stresses the decline of skilled manual employment and the use of non-manual employment. In particular, they conclude that 'there was an unambiguous deskilling of the industrial workforce in the 1920s', even allowing for the effect of the Depression on the 1931 Census. However, they may have overestimated the buoyancy of the Scottish economy in 1921 (see the previous chapter). They also note how SEG 7 changes in this period from being mainly domestic servants to other kinds of personal service worker (*ibid*, 89).

In addition to the SEG series, Kendrick et al (*ibid*, 95-7) present a shift share analysis of changes between 1961 and 1971, the only two census points in which this can be carried out. This attempts to partition occupational change between changes due to the use of labour within industry, and the shift of employment between sectors. Perhaps the most striking result is the great complexity of movements, the main features of which are produced in Table 5.5.

(8) Further details can be found in Payne (1977a).

Table 5.5: Shift/share Analysis of Occupational Change:
Scottish Males, 1961-1971*

SEG	Gains	Losses	Shift/Share
Non-manual; 1 - 5	Prof. & Sc. Services, Various manu- facturing	None	$\frac{2}{3}$ rds occupa- tional
Skilled manual; 9	Newer industries eg engineering	Old staples, distribution & transport	More industrial than occupa- tional
Semi Skilled manual; 10	Various, but not old staples except textiles	Old staples (esp. mining), Transport	$\frac{2}{3}$ rds industrial
Unskilled manual; 11	Various but not old staples except textiles	Transport, old staples, Public Admin.	$\frac{4}{5}$ ths occupa- tional

* adapted from Kendrick et al (1983, 107-129).

The interaction of industrial change and occupations is clear in the middle two columns: gains of new occupations of whatever level are either in newer industries or widely spread, but not in mining, shipbuilding or metals, and in fact only 2,700 new jobs in semi- and unskilled manual work were recorded. Conversely, job losses were in the old staples, but also in transport, showing how the industrial heritage of the 19th century continues to be reflected in the occupational structure. At the same time, the non-manual SEGs (we omit some of the intermediate SEGs because of their small numbers for male workers) show a strong occupational effect, ie a response to technological innovation which applies across the board and not just in specialist new service industries. These results, which will be

important for an understanding of the changes in mobility rates discussed in later chapters, can be summarised as follows: in

'the non-manual groups it is safe to say that the occupational component of change predominated for male manual workers, industrial change tended to be the main factor' (Kendrick et al, 1983, 132).

Kendrick et al also point to long term similarities between Scotland and the situation south of the border, a broad similarity which must be acknowledged. On the other hand, there is not a complete coincidence of patterns, with differences of levels, rates of change, and even smallscale, short-run counter trends. These can be summarised by examining the degree to which the several occupational categories are over- or under-represented in Scotland, as against England and Wales, using a simple comparison of actual numbers, and the expected frequencies if there were no differences between the two countries. Table 5.6 makes this clear: it gives the number of jobs in each SEG, and the percentage of these which are in Scotland for the census year in question. This can be thought of as firstly an expression of social justice, in that if Scotland is, say 10 per cent of the mainland UK's labour force, it should have 10 per cent of the desirable or skilled occupations and 10 per cent of the undesirable or unskilled ones: Table 5.6 suggests the scale of national imbalance. Secondly, the figures can be taken as an indication of convergence or divergence of occupational structures over 50 years - although of course the interim fluctuations must be borne in mind.

The occupations in Table 5.6 have been arranged in a very rough hierarchy of 'desirability': those towards the top tend on average to be more skilled, to receive better incomes, have greater security, have superior working conditions, receive better holidays, fringe benefits, and flexibility of working hours, and to be popularly recognised as more desirable (i.e. following the argument of the Hope-Goldthorpe scale). Some readers may wish to adjust the hierarchy to suit their own perceptions, as the arrangements given here is recognised as a very approximate solution and not one which is

Table 5.6: Deviations between Observed and Expected Frequencies in Scottish SEGs*

SEGs	Occupations	1921	1931	1951	1961	1971
13	Large Farmers	+3.8	+7.4	+12.6	+7.3	+3.1
3	Self-Employed Professionals	+2.1	-2.1	+1.1	+0.7	+0.1
4	Employed Professionals	+2.5	+2.5	+0.1	-2.1	-1.2
1 & 2	Employers and Managers	-2.0	-1.2	-1.5	-1.4	-1.6
5	Semi-Professionals	-0.8	+0.5	+0.7	-0.1	0.0
8	Foremen	+0.2	+1.5	+3.0	+0.1	-0.2
6	Junior Non-Manual	+0.9	+0.2	-0.2	+0.2	-0.5
12	Own Account Workers	-3.3	-2.2	-4.2	-3.9	-4.3
14	Small Farmers	+6.8	+0.4	-1.4	+0.5	+1.7
9	Skilled Manual	+0.1	+0.2	+0.1	+1.0	+0.6
10	Semi Skilled Manual	-1.1	-0.4	-0.1	-0.1	+0.1
11	Unskilled Manual	+0.9	+0.4	+1.1	+1.3	+2.5
7	Service Workers	-1.6	-1.0	-0.3	-0.4	+0.1
15	Farm Labourers	+4.0	+3.7	+4.0	+5.6	+5.5
	Scotland /GB (%)	11.3	10.5	10.1	9.4	9.4

* Each cell gives the difference between the percentage of the SEG for Scotland, England and Wales that is located in Scotland (the observed), and the percentage of the total labour force of England, Wales and Scotland to be found in the latter country, as shown in the bottom row (the 'expected' frequency). For example, Scottish large farmers in 1921 numbered 31,353, or 15.1 % of the 208,113 large farmers in the three countries: the difference between 15.1 % observed and 11.3 % expected is 3.8 %.

inherent in the OPCS definitions of the SEG's: the exact order of hierarchy is not crucial to the argument.

What Table 5.6 shows is that Scotland's position vis a vis England has changed in the last 50 years, on the whole for the worse. Among the top 50 per cent of 'more desirable occupations', Scotland started with a better share of large farmers, self-employed, and employed professionals: only in the large farmers, a relatively closed group, has Scotland maintained an advantage, and this in a small and currently declining sector. Scotland was deficient in managers and in semi-professionals: the latter are now in balance with England, but the former remain behind. The other employed highly-skilled category, the salaried professionals, started with a 'surplus' in Scotland but since 1961 has also moved into 'deficit'. Scotland therefore does not now have any advantage over England in the highly-skilled non-farm sector, and despite a relatively good performance in the semi-professions, the situation in this sector has deteriorated since 1921.

In the intermediate occupations, relative advantage among foremen, and junior non-manual workers has given way to disadvantage. Scottish own-account workers have dropped further behind, while small farmers have ended a period of considerable fluctuation with a much reduced position. In each of the four intermediate categories which form the second part of the more desirable 50 per cent of occupations, Scotland has lost ground to England.

In the 'lower skilled half', the biggest change has been the growth of Scotland's excess of the lowest skilled occupations, the unskilled manual and the agricultural, together with an increase in the semi-skilled. Of course, in this context, these occupations are 'undesirable', so that an 'excess' is unwelcome. Scotland has positive scores on all five manual occupations for 1971, and although the excess of skilled workers throughout the period is the least unwelcome feature, in that these are the most skilled of the lower half, even this is another declining sector.

Clearly, Scotland has become more working class in occupational terms and its population is now less skilled, vis a vis England, than at any time since the First World War. In ten out of fourteen SEG's, the skill distribution in 1971 is in England's favour (two of the remaining cases are farm occupations, and three of the four involve ownership of capital): in twelve of the fourteen SEG's, Scotland's position has actually worsened since 1921. This suggests that an inter-country economic relationship which benefits the south at the expense of the north has been the outcome of the unified economic policy. The cumulative effect of the small differences in each SEG has been shown to be considerable.

The data given in Table 5.6 can also be regarded as impinging on the convergence thesis. One of the peculiarities of this thesis is that while independent nation states are expected to converge, very little is said about how regions within a state are expected to behave. If more extreme form of technological determinism is advanced, regional convergence is the outcome; a weaker form of the argument would be that functional specialisation of regions (divergence) could occur as part of an overall national convergence. Scotland does not unambiguously fit either model. Ten out of the fourteen SEG's are now closer to the 'norm', which appears to mean that the occupational structures of the two countries are now more alike than fifty years ago. But conversely, there are four SEG's which have diverged (mainly in the lower part of the hierarchy), and the growing similarity between both sides of the Border should not be allowed to obscure the marked shift of the balance in types of occupations.

Again if occupational convergence is said to have occurred up to 1971, why has the institutional differentiation observed in Chapter Four above remained intact? Although functional regional divergence seems just as plausible a proposition on the present evidence, this has not arisen as a result of public or private official economic policy, which has been to encourage a 'balanced' growth. Furthermore, the institutional differentiation, while

not uniformly being a hindrance to economic efficiency, has been a source of some difficulties in the areas of law, religion (especially the Sabbath), dual centres of administration, and possibly in education. Without a more precise statement of what are the essential institutions and units of convergence, no progress can be made on these lines.

A better model of explanation lies in the style of historical account used in the previous chapter, which stresses the interplay of technology and decisions about the use of capital, and the relative autonomy - or should one say the inertia - of social institutions.⁽⁹⁾ At least such an account goes some way to explaining Scotland's subordinate status, and the reasons for her declining occupational position. The synthesis of the several perspectives and the empirical evidence shows that an industrial society can both expand its high-skilled labour force while at the same time be relatively proletarianised (in occupational terms) in the wider context. Neither a Braverman-type degradation, nor (to a lesser extent) a Moore-type expansion of the middle range seems to be a major feature of such a change, as far as Scotland is concerned.

The results of these changes, if conceived of as changes in social class rather than just in occupations, are considerable. Between 1921 and 1971, the patterns of change are 130,000 increase in the upper middle class, 11,000 increase in the intermediate classes, and over 190,000 decrease in the manual working class, all in a period of relatively little change in total

(9) A fuller treatment of rival theories of regionalism can be found in: (a) Holland (1976, 36-48), Rogers (1978), Mewett (1979), Massey (1978) and Carter (1971; 1974; 1975) who in varying degrees attempt to apply the theories of Myrdal (1957), Peroux (1955), Wallerstein (1974), Mandel (1975) and Frank (1967, 1970) to Scotland; (b) Davies (1974), Domette and Poncet (1980), Carney et al (1980), and Holland (1976) who discuss the role of the state in regional development from a marxist perspective; and (c) Richardson (1969), Richmond (1969), Cullingworth (1972), Pryor (1974), Humphreys (1977), House (1977) and Hawley (1978) for a more 'mainstream' view.

size of male labour force. Even allowing for migration and unemployment, these figures indicate a framework in which upward social mobility is fostered. Where else were the extra 141,000 middle class employees to be recruited, except by a combination of reduced downward mobility and increased recruitment from below? The composition of the new middle class is not a uniform one of traditional middle class backgrounds, but must contain at least a substantial minority of people with origins in working class families. It is not surprising that subjective social class ratings yield such complex results, or that voting patterns appear inconsistent, or that father-son education levels are poor predictors of son's 'occupational achievement', once the importance of underlying details of the occupational structure are recognised.

These latter comments are made as a reminder that our concern with occupations is a sociological, rather than a narrowly economic, one. As was observed in the first chapter, mobility analysis has been class analysis, and even if one wishes to propose a modification of this approach, that is not simply to ignore the tradition and earlier evidence. Having established the broad theoretical, historical, and occupational context, the final step before presenting new data on mobility is to see how this must modify existing 'knowledge' about mobility. In particular, the phenomenon of occupational transition must bring into question the results of that cornerstone of British mobility writing, the work of David Glass, and this forms the basis of the next chapter.

CHAPTER 6

A Reappraisal of 'Social Mobility in Britain'.

The two previous chapters have established a context for the study of mobility in Scotland, but before we can present contemporary evidence, there is one other major background feature to discuss, namely the work of D.V. Glass. Glass's general contribution to ideas about mobility and class in Britain have been crucial, and although not reported at length, his is the only previous study of mobility in Scotland. However, to appreciate some of the criticisms that will be made of Glass's work, it was necessary first to understand both the general social and the specific occupational character of modern Scotland. Although the point should not be laboured, Social Mobility in Britain typifies the mainstream approach to mobility, and exemplifies the dangers of ignoring the occupational dimension.

In the account that follows, it is the latter aspect which receives most attention, but the former should not be forgotten. It is not in any way the author's case that all previous mobility analysis is irrelevant because of its emphasis on social rather than occupational mobility, but rather that greater care taken with occupational analysis will pay dividends in improving explanations of social mobility and class formation. In dealing at some length above with economic change, this ultimate interest in stratification may have been obscured. However, even if the underlying orientation of the Scottish Mobility Study has been towards occupational mobility, interest in its results has stemmed from other sociologists' wishes to know how far general patterns of social mobility apply to Scotland. To put it another way, the present study is part of a wider intellectual tradition, to which its findings must be related. Thus the development of the present work cannot neglect 'what every sociologist knows' about mobility (as one eminent sociologist has put it). This chapter therefore returns to the fountainhead of British mobility research.

Glass's Influence on Mobility Research

There can be few areas of British sociology that are so dominated by one study, as social mobility is dominated by David Glass's Social Mobility

in Britain (1954)⁽¹⁾. In the twenty years that followed the appearance of this book, there were only a handful of mobility publications which did not rely on Glass for their empirical evidence, and those few that disagreed with the LSE study - such as Benjamin (1958) and Noble (1972, 1975a) - were largely ignored. Leading English writers in the field of social class such as Bottomore (1965), Westergaard and Resler (1975), Worsley (1977), Parkin (1971), and Giddens (1973) all quote Glass (or more precisely, Miller's re-working of the Glass data (1960)) as the foundation of their ideas about rates of mobility. As one key figure in the second generation of mobility studies, Keith Hope, observed in 1974, Glass has

'contributed materially to the theoretical debate on British stratification. Indeed, theories of British occupational mobility, so far from being derived from some broad body of speculative sociology, have tended to ground themselves in an agreed reading of the findings of the 1949 inquiry, differing from one another only in the supposed mechanisms and processes which they postulate to explain those findings.' (Hope, 1975, 1-2).

It would not be an exaggeration to say that for over twenty years Glass was to social mobility what Darwin was to the theory of evolution.

How are we to explain this? Firstly, there is the kind of useage to which Glass's data were put. British sociology has been centrally concerned with social class, and social mobility was subsumed under that heading. There was almost no interest in occupational mobility per se: evidence about recruitment patterns relied for its significance on what it could tell sociology about class boundaries and the continuity of the class structure. Because mobility assumed only a secondary importance to sociologists more concerned with social class (such as the writers mentioned above) they were content to take Glass's evidence on trust. The prime focus of their work, social class, provided ample problems, so that there was little incentive to become deeply involved in the detailed technicalities of social mobility, which, after all,

(1) Parts of this chapter discuss in very considerable detail those parts of Social Mobility in Britain dealing explicitly with intergenerational social mobility: the reader may find it helpful to have a copy to hand. Criticisms of Social Mobility in Britain made below refer not to all parts of that book, but to the specific sections on this type of mobility, e.g. pp 179-215.

comprised only one element of the total picture.

In the second place, Glass's study was highly plausible, both in its methodology and its findings. On the one hand, the study was an exceptionally sophisticated one, even by today's standards. It had a large sample with national coverage (3497 male respondents in England and Wales, and 417 in Scotland - Glass, 1954, 180-3 and 213-215). Its statistical innovations not only took up several chapters but formed the basis of much later developments on mobility indices in Britain and abroad⁽²⁾. On technical grounds, it was an unimpeachable source, particularly during a period of sociology's history in this country, when statistical expertise was not an essential part of the sociologist's repertoire⁽³⁾.

On the other hand, its findings made sense. Almost without exception, sociological writers on social class in Britain have adopted a political stance on the Left. When Glass wrote that there was little upward social mobility, it reinforced everything else that they knew about the class system. There was no incentive, therefore, to challenge his results. What is more, Glass's 'hard' scientific evidence was a great support both in the debate with Conservative Party ideologues, and with liberal apologists for capitalism. Even American sociology welcomed Glass's findings as helping to show the difference between an open and achievement-dominated society like the United States, and closed class-ridden societies in Europe (e.g. Bendix and Lipset, 1959).

(2) See for example, Hauser's comment that even if doubts have been expressed about Social Mobility in Britain, the source is so well known that it is best to continue using it for statistical development (Hauser, 1978).

(3) In a slightly different context, Keith Hope has suggested that it was Glass's development of statistics based on a X^2 model that had great influence: even non-numerate sociologists could follow a X^2 approach in a general sense. David Glass's numerical expertise as a demographer also probably helped to promote confidence in his mobility results.

There is, however, a third and more important reason why Social Mobility in Britain has been so influential, and that is the position of the sponsoring institution, LSE. To understand this it is necessary to look at the state of English early post-war sociology. The frequent comment that sociology is a relatively new discipline is more true than is normally recognised: in Britain the profession has existed for all intents and purposes for a bare thirty or forty years. The growth of sociology is quite remarkable. In the last full year before the outbreak of the Second World War there were only 35 professors in all of the social sciences in Britain, and 177 lecturing staff on other grades (Clapham, 1946). The number of graduating students in sociology, anthropology and social administration combined was just 33 (Heyworth, 1965). By 1973, there were around 12,000 sociology teachers in Higher Education, and another 900 sociologists in research work. Indeed a 1975 survey of only 19 Polytechnics found more sociologists than all social scientists in 1938/39 (Nicholas, 1978). By 1970, there were 1,700 graduates a year in sociology and social anthropology, while 5 years later there were over 2,500 social science post-graduates (Smith, 1973; DES, 1975).

Before this rapid growth, British sociology was synonymous with LSE, where the dominant mode until the late 1940s was more one of social philosophy and ethics. The central figures among the 'old guard' at LSE were Marshall, Ginsberg and Mannheim. These men represented continuity with the early years of British sociology, both in their experience and also in terms of what they were teaching. Mannheim taught a theory course, while Ginsberg was centrally concerned with Hobhouse's style of sociology. A student of that period has remarked that, in teaching theory and method together, Ginsberg was strong on methodology at the level of philosophy of science, but less so on techniques of data-collection⁽⁴⁾. In most respects this was the final flowering of the old

(4) Personal Communication with Margaret Stacey.

sociology, for there was an abrupt change in the early 1950s, shortly after the arrival of David Glass. Largely under the influence of Shils, American sociology was introduced to the School. Both Parsonian functionalism and a watered-down version of Lazarsfeldian empiricism were suddenly challengers to social darwinism and civic sociology (Halsey, 1982). These new doctrines were taken up by a particularly good crop of graduates and young staff in the early post war years: for example, Asher Tropp, Cyril Smith, Chelly Halsey, Joe and Olive Banks. Many of these were the 'young turks' who were to determine the future direction of the new BSA towards a professional association (Banks, 1967). These sociologists made successful careers and were influential in setting up new departments in other universities. For a number of years, LSE could boast that half of British Sociology Chairs were filled by LSE graduates.

During the explosion of sociology in the late 1960s, successive generations of LSE students, post-graduates, research assistants and junior lecturers became the staff of other newly developed departments. Not least amongst these were Glass's co-researchers who went on to become heads of department: Kelsall, Martin, Floud, Halsey, Banks and Banks, and Bottomore. They took with them an interpretation of social mobility which was unusually coherent, and until the 1970s there was a general assumption that mobility 'had been done' by Glass, and that there was little more to be said on the subject.

These conventional interpretations of mobility contain several inter-related strands. Firstly, mobility is normally taken to mean exchange mobility rather than structural mobility: that is, mobility refers to those movements between occupation statuses over and above any movements 'necessitated' by a change in the occupational structure between the father's and the son's generations. Secondly, while recognising that movements do frequently occur, it has been generally agreed that movements over the whole range of the occupational structure are very rare. The typical move is a 'short distance' one; the clerk's son

who becomes a departmental manager, or the miner's son who becomes a clerk. Thirdly, social mobility has been subsumed under a wider concern with the contemporary class structure: in as far as it has been of interest to British sociologists, it has been only as a contributory factor in the structured inequality of life chances, and in class formation. It has not been of much interest in its own right, or in a comparative context. In short, a dominant paradigm has existed for over twenty years in British sociology which drew heavily on Glass, but which, in its acceptance of Glass's findings, generated little significant new research or speculation about mobility patterns per se until the present round of studies.

If there is any doubt about this, consider the way in which three recent and well-regarded writers on the sociology of stratification have dismissed mobility as a constant and known process. Westergaard and Resler (1975) discuss Glass's results, concluding that there has been

'no change of substance in the amount of movement up and down the social scale till about the time of World War II. And there seems now to have been little increase in social circulation after that either ... Long distance movement especially - from bottom to top, as well as from top to bottom - is uncommon. Most individual mobility is far more modest; and much of it stays on one side or the other of the conventional dividing line between white- and blue-collar work.' (Westergaard and Resler, 315; 302).

Secondly, Scase, in a review of Class in a Capitalist Society in Sociology approves of Westergaard and Resler's section on mobility as scotching the popular myth of a more open society, and thereby confirming 'what every sociologist knows' (Sic) (Scase, 1977; 515). Certainly, this is the view presented to many beginning students of sociology: the second edition of Worsley's Introducing Sociology which claims that its first edition

'has been used in about half the universities in the UK, in many colleges of various kinds, and even - to our surprise - in schools' (Worsley et al, 1977; 15)

asserts that

'though there is a great deal of mobility, most of it is, in fact, very short range mobility. The myths of 'long distance' mobility - 'from log-cabin to President' - are, overwhelmingly, myths as far as the life chances of the mass of the population are concerned.' (Worsley et al, 1977; 432).

The authors continue by quoting verbatim Westergaard and Resler's version of stable mobility rates referred to above.

These three sources, with their dependence on Glass, lend support to the view that there has been an agreed and widely held notion of mobility among British sociologists. Indeed, the same statements about limited and short range mobility can be found with only very slight variation in the works of Bottomore (1965; 38); Miliband (1969; 34-44); Parkin (1971; 51-6); Miller (1960; 36-41); Raynor (1969; 33-5); Frankel (1969; 161); Goldthorpe (1974; 145-6) and Giddens (1973; 107, 181-2). We shall return to the detail of what these writers say about mobility below.

It will be apparent from the foregoing pages that Social Mobility in Britain is of such importance that it must be the starting point for any subsequent study of social mobility. If one is to propose findings that challenge those of Glass, one must be on the strongest of grounds, and given the security of his reputation, one is placed in the position of needing to marshal every possible argument to counter his case - and indeed the case of all those other subsequent sociologists who have based their ideas upon his evidence. It is a daunting task.

There are at least four different critiques of Glass that could be adopted. The first, and simplest, is that if more recent studies disagree with Glass, then the explanation lies in changes in British society since 1949 when the fieldwork for the first study was done. If rates of mobility are found to be higher in the 1970s, than around 1950, both findings can be assumed to be accurate for their respective times. This is the view espoused by Goldthorpe and Llewellyn (1977) who argue that Glass's study came by mischance just at the end of an era of low mobility, whereas the Nuffield study in 1972 taps the subsequent era of higher mobility.

An alternative view is the one which will take up much of the final section of this chapter. That is, that the Glass findings are in some way inaccurate. In this case, the more recent studies (of England and Wales, and

of Scotland) represent the first accurate studies of their kind.

In fact, the present author adopts a third position, namely one that draws on the previous two. If changes in mobility rates depend on real historical events like the availability of employment or the growth of white collar occupations, then inevitably Glass's findings would be specific to the time at which the LSE research was carried out. Equally, if there are reasons to doubt its accuracy, its results may be biased in some way. The two conditions are in no way mutually exclusive.

There is an additional independent critique which applies only to Scotland. Even if the case for questioning Glass's account of English mobility is not proven - which of course is not the position taken in this chapter - then the problems with Glass's treatment of his Scottish data remain. As this is an argument of lesser importance than the more fundamental question of accuracy, it is easier to deal with it before proceeding to the major criticism.

Glass on Scotland

In the first place, it must be recognised that Glass has very little to say about mobility in Scotland. To be precise, he devotes 3½ pages of his book to the subject, large parts of which consist of tables and charts. In fairness, Kelsall's paper on recruitment to four professions does also cover Scotland, but there is a distinct lack of information reported for the 1949 study.

This is probably because the size of the sample was so small. Unfortunately, in attempting to correct for this, Glass weakens his own case in two key ways. On the one hand, he becomes inconsistent about the significance of the Border, and on the other, he is reduced to much cruder occupational categories than he employs for England and Wales.

Because he has only 417 male Scots in his Scottish sample, Glass adds in 54 other men born in Scotland, but resident in England. Thus only 89% of his 'Scottish' sample live in Scotland. The only rationale for this move

can be that mobility is determined by something in the origins of respondents, not in their destinations. One could attribute to Glass any number of explanations for the dominance of origin in mobility: mobility due to racial inheritance, or cultural heritage, or the Scottish educational system. While the latter seems plausible, Glass gives no clue to the basis of his decision. The concentration on national origins neglects the effect of destination on mobility rates: the opportunity structure of England (and particularly of London and the South East) is quite different from that of Clydeside or the Highlands.

Furthermore, as we have observed, some sociologists argue that long distance migrants are not typical of the general population: they tend to be better educated, and employed in jobs of higher status (see Blau and Duncan, 1967, ch. 6 and 7; Friedlander and Roshier, 1966a and b; Uhlenberg, 1973; Miller, 1975, etc). By adding more than 10% of these people to the sample, Glass is likely to have distorted the picture of Scottish mobility.

To this view, it may be objected that what Glass has done is not to distort but to round out the picture. He is presenting an account of all mobility among men born in Scotland, not mobility in Scotland. This will not do, however. Glass does not omit the English who have migrated north from his sample, nor does he add them on to his English sample. What is more, why should Glass stop at adding in England and Wales? What about America, Canada and Australia, and the other lesser geographical destinations worldwide which feature in the Caledonian Diaspora?⁽⁵⁾

The other criticism concerning the collapsing of the occupational is equally important. Glass reduces the 7-fold schema used for England to 5 categories for Scotland in order to maintain cell totals with only 471 cases⁽⁶⁾

(5) Richmond (1969) has noted the success of English speaking migrants in Canada, and in all, there were something in excess of 1.5 million such Scots spread throughout the world during the twentieth century.

(6) i.e. 417 'true' Scots plus 54 'Anglo Scots'.

This

' may help to overcome (while, unfortunately, suppressing) some of the more subtle differences between the countries. Whether major differences in the ranking of occupations are still left, however, cannot be ascertained' (Glass, 1954, 213).

Since his initial preference was for 7-fold classification, the one used on the Scottish data must be definition be less satisfactory. It consists of:

Status Category 1 & 2	All professional, high administrative, executive and managerial workers (incl. Farmers)
3	Higher grade supervisory, inspection and non-manual workers ('semi-professional')
4	Lower grade supervisory, inspection and non-manual workers (small proprietors, manual supervisors)
5	Skilled manual and routine non-manual workers
6 & 7	Semi-skilled and unskilled workers

Not only is this categorisation clumsy, but it shares several peculiarities with the original 7-fold classification. In the first place, the allocation of farmers to the top category (which consists otherwise of senior industrial, administrative and professional occupations) will have the effect of exaggerating the apparent level of self-recruitment in that category, since farming is one of the most heavily self-recruited occupations. In the 1975 study, 55 out of 76 farmers employing labour were the sons of farmers. If the farmers are eliminated from the figures (as in Goldthorpe's 1975 paper) or allocated to a lower category (as in the main analysis for the 1975 study), the effect is to reduce the apparent closure of the highest category (or rather its closest equivalent).

Secondly, Glass combines semi-skilled and unskilled workers. This combination, although producing a somewhat crude category, has since been advocated by Goldthorpe because the delineation of the boundary between semi- and unskilled labour is so difficult. The third feature of his classification is the combination of routine non-manual workers with skilled manual workers.

This has received little comment over the years, presumably due to Kelsall's reworking of the English data which were featured in Miller's seminal work (Miller, 1960). In the Scottish data, this correction was not made, and the result is an unhappy combination of two very different groups. We will see in detail later on how the mobility behaviour of the two groups differ, but it is worth noting here two aspects of the problem. While a number of writers have disputed whether routine non-manual workers are essentially middle class or working-class - for example Wedderburn and Craig, 1974; Parkin, 1971; Westergaard and Resler, 1975; Stewart et al, 1980; and Giddens 1973 - no one has argued in favour of treating the two groups as synonymous. One key difference of particular relevance to mobility patterns is the way change in employment structure has affected the two. As chapter 5 (above) showed, skilled manual workers have suffered the most marked decline in numbers this century, whereas the routine non-manual sector has been one of the most rapid in its expansion. Thus both the employment situation and the destination 'end' of the mobility link have been quite dissimilar for the two categories which Glass combines.

There is yet one more limitation to what Glass can tell us about mobility in Scotland. This final constraint on comparison between 1949 and 1975 is the most severe: Glass does not report his cell value for his mobility tables. Instead, he presents only the computed Indices of Association for two cohorts, and summary Indices of Association (I.A.) and Dis-association (I.D.) for their two mobility tables (Glass, 1954; 214-215). It is clear that from the start, any attempts to link studies in the way that Nuffield attempted to compare the 1972 and 1949 studies would have been unfruitful in the Scottish case.

Nonetheless, we can abstract four main conclusions about Scotland from Glass's work (Glass, 1954; 215-216), that is, excluding any questions about direct comparisons with England and Wales:

- i) all cells have an Index of Association significantly different from 1.0

- ii) for each cohort (and their counterparts for England and Wales) the ranking of categories by their I.A. scores, 'is almost exactly the same' (Glass, 1954;215).
- iii) Scotland appears to have 'a more even social structure. Table 18 suggests, indeed, than in Scotland there may be a two-fold rather than a three fold division in the degree of self-recruitment' (Glass, 1954; 216), with categories 3 to 7 forming a broad group with similar levels of self-recruitment.
- iv) Scotland may be undergoing 'some sharpening of the divisions' in self-recruitment, in as far as Category 1-and-2 is more clearly differentiated in the younger cohorts.

In considering these conclusions, we have only the Index of Association as evidence: without the marginals, it is not possible to know the maximum value which the index could take for any cell in the Glass data, so that we cannot compare values for large and small cells in an informed manner (large categories of either origin or destination can have only small values, and vice versa: see Tyree, 1973, 580). We are restricted to comparisons which relate only to the Index of Association as far as the 1949 data are concerned, and to two broad cohorts, pre-1900 and 1900-1919⁽⁷⁾.

Glass's first conclusion means that in each of the occupational categories more self-recruitment is reported than would be expected on the assumption that father's background had no influence on son's occupation, and that the difference is too large to be attributed to sampling variation. This finding has lost some of its 1954 impact as a "proof" of a commonsense assumption, and indeed, any other finding (e.g. a deficit of self-recruitment) would be the more surprising. The assumption of perfect mobility (that father's occupation does not influence the son's occupation) is of course a sociological absurdity: ownership and inheritance, differential socialisation, educational access and performance, etc., are all well-documented features which explain the influence. Perfect mobility is employed solely for its

(7) One wonders what would have been the impact of Glass's study had this been the miserly level of reportage offered for England and Wales.

heuristic value, and so when Glass reports that the empirical world deviates from it, this is only confirmation of what is sociologically obvious. However, as Goldthorpe (1975) has pointed out, the appearance of self-recruitment (as a strong diagonal effect in a mobility table) may be more clear-cut in tables with a small number of large categories, than in a table with a higher number of more specific occupational categories.

Glass's emphasis on 'category self-recruitment' stems from his limited view of the openness of society, and it provides only a very partial perspective on the mobility process: for instance, it says nothing about the cells which lie off the diagonal, and so nothing about gross upward or downward mobility rates in Scotland, or about the patterns of association between particular occupational categories. Glass's first conclusion is included here only for completeness: in fact it tells us very little. What is far more important is that this approach (and more so its use on the English data) has influenced subsequent work on mobility and stratification in Britain into a concentration on self-recruitment, stability, and rigidity in the social structure, during a period of massive change in the occupational structure.

The second conclusion drawn from Glass is one which even his own data do not uphold. Despite his optimistic statement that both Scottish cohorts (and their English counterparts) have 'almost exactly the same' ranking in their I.A. scores, the actual pattern is not quite so neat (see Table 6.1). While the two English cohorts are internally consistent, the two Scottish cohorts agree only on classes '1-and-2', 5 and '6-and-7'. The younger Scottish cohort additionally matches the English pattern on Class 3, but retains two disagreements, while the older Scottish cohort does not agree on three classes: 3, 4 and '6-and-7'. These variations cannot be adequately characterised as almost exactly the same' pattern.

Table 6.1

Indices of Association; Cohorts and Countries 1949

Source: Glass (1954, 214).

Occupational Class	Rank Order				Value			
	England		Scotland		England		Scotland	
	Pre-1900	1900-19	Pre-1900	1900-19	Pre-1900	1900-19	Pre-1900	1900-19
1&2	1	1	1	1	5.35	5.78	5.29	10.25
3	2	2	3	2	1.84	1.91	1.65	2.67
4	4	4	2	3	1.69	1.45	2.61	1.68
5	5	5	5	5	1.19	1.19	1.21	1.22
6&7	3	3	4	4	1.72	1.75	1.45	1.34

Glass's third suggestion about the Scottish social structure is that it is more 'even' than in England and Wales, with only two patterns of self-recruitment instead of three. The idea of an even social structure is that all categories have similar levels of self-recruitment: south of the border, there are 3 levels of self-recruitment, one high with a value of 5+ for category '1-and-2', one low with a value of 1.19 or less for category 5, and one for the remaining categories with values between 1.91 and 1.45. In comparing Scotland and England and Wales, Glass claims that the difference in the degrees of self-recruitment between categories '1-and-2' and the others, particularly categories 3 and 4, is less clear cut in the earlier cohort. An examination of Table 6.1 shows this to be simply inaccurate. Again, for category 5, which is distinctively low on self-recruitment as compared with class 6-and-7 in England and Wales, the Scottish pattern is less sharply differentiated. The implication that Glass draws is that since the biggest difference lies between categories '1-and-2' and the rest (albeit according to him with not such a great difference as in the English case) there are

effectively two patterns of self-recruitment in Scotland, one for category '1-and-2' and the other for categories 3 to 7. However, the difference between classes 4 and 6 and 7 is much greater in the Scottish data, so the two level argument cannot be sustained. The levels argument is associated with Glass's fourth suggestion that there is in process a sharpening of the divisions between '1-and-2' and the others, because these are more differentiated in his younger cohort. We will consider these views in the light of the 1975 data later in the study, but it should be clear by now that we can place little confidence in them. Their base, in a dubious sample, using a truncated classification, and with a severely limited account of the results, is a weak one. The technical and logical grounds for asserting 'evenness' of structures, or 'sharpening' of difference are poor. The questions lying behind Glass's Scottish account are nonetheless interesting, despite the limitations of his answers. However, a much bigger set of problems has now to be considered, which lie in Glass's account of mobility in England and Wales.

Glass on England and Wales: Occupational Transition

It is often the case with seminal works that any technical defects or limitations are quickly over-looked and soon conveniently forgotten. Glass himself took great pains to point out a number of unusual features of his results, and later writers (mainly in the field of social mobility, rather than class theory per se) have echoed his observations. However, very little has been done to consider what significance such features might have. For example, it is almost a commonplace that the LSE mobility tables are unusually symmetrical, or that class differentials in fertility rates produce a biased distribution of fathers' occupations - both points originally made by Glass. Other peculiarities have been reported by Ridge and Hope during

the recent phase of national mobility studies. But as yet, these problems have not collectively received the attention which they merit; the intention of this chapter is to remedy this, and thereby to raise doubts about the uses to which the Glass data have been put by later writers, i.e. in conceptualising the British class structure.

The starting point of this re-appraisal is the core of mobility analysis, the mobility table. One of the general characteristics of mobility tables showing respondents' occupations tabulated by their fathers' occupations is that the distribution of occupations for the respondents is different from that of their fathers. The dominant pattern of such tables is that fewer of the fathers have middle class occupations than do the respondents (or sons), and conversely more fathers appear to be in working class occupations. This pattern is associated with greater overall upward occupational mobility than downward mobility despite varying levels of inherited advantage and self-recruitment, and is commonly found in national mobility tables for 20th Century industrial societies.

There are two major reasons why the fathers/sons distributions differ in this respect; changes in occupational structure and differences in fertility. The thesis of occupation transition (discussed above in Chapter 5), that industrial societies manifest a trend towards increasing skill levels, with more professional, technical and white collar workers, and relatively fewer unskilled manual workers, implies a steady expansion of the more desirable middle class occupations. This necessitates a flow of workers into those new occupations which expand the middle class sector. In other words, the sons of working class families are less likely to inherit their fathers' jobs because relatively speaking, the working class sector is contracting while the middle class sector is expanding, thereby making it easier to enter. This process is reinforced by educational policies designed to produce a workforce

with the necessary skills for further vocational specialisation. The result is structural mobility, which mobility researchers since the mid-1970s have increasingly seen as the major component of mobility (e.g. Hauser et al, 1975a, 1975b; Goldthorpe, 1980; Hope, 1980).

In mainland Britain for example, professional, technical, supervisory and routine white-collar male workers increased from about 3,900,000 in 1921 to over 6,900,000 in 1971, and have become 45% of all jobs compared with 30%, as Table 6.2 shows.

TABLE 6.2.

Occupational Transition in Scotland, England and Wales in 1921, 1951 and 1971:
economically active males, aged 20 - 64*

Source: adapted from Census Occupational Tables (for details see Chapter 5)

		1921		1951		1971	
			%		%		%
"White Collar" Occupations SEG 1-6;8;12-14 (Incl. Farmers)	Scotland	419,641	28.3	480,729	31.2	560,890	39.1
	England & Wales	3,519,704	30.0	4,706,004	35.1	6,386,250	45.8
	Total	3,939,345	29.8	5,186,733	34.7	6,947,140	45.2
"Blue Collar" Occupations SEG 7;9-11;15	Scotland	1,063,192	71.7	1,060,221	68.8	872,040	60.9
	England & Wales	8,225,290	70.0	8,713,168	64.9	7,566,240	54.2
	Total	9,288,482	70.2	9,773,389	65.3	8,438,280	54.8
Totals (excluding Armed Forces & SEG 17 (not known))	Scotland	1,482,833	100	1,540,950	100	1,432,930	100
	England & Wales	11,744,994	100	13,419,172	100	13,952,490	100
	Total	13,227,827	100	14,960,122	100	15,385,420	100

* Throughout this section, data are presented in broad categories such as "White-collar" or "Manual" workers in order to achieve comparability over the several studies.

Blue-collar workers, despite an absolute increase in numbers between 1921 and 1951, have been in relative decline since the First World War, and absolute decline since 1951. Their proportion of the classified workforce has

fallen from 70% to under 55% (excluding armed forces). The process of occupational transition can be traced back into the nineteenth century, although the mechanics of this exercise are not easy. The technical aspects of using census data to construct a time series become more difficult, because job titles (and work tasks) become more different the further back one goes. It seems that the rate of change increases in this century, but there is no evidence of a reversal of the occupational transition process in the later part of the previous century.

In samples of fathers and sons, we would therefore expect to find differences in occupational status. Men starting careers in 1920, say, joined a labour market which had greater demand for manual labour than did the labour market of 1950. In other words, the father was more likely to start as a manual labourer in 1920 (and therefore to remain one or at least to have a harder task of subsequently getting a non-manual career) while his son had a better chance of entering white collar work in 1950. This is reflected in mobility tables, but will be distorted by other factors (particularly differential fertility as we shall shortly see below). Table 6.3 gives three examples from more recent surveys.

TABLE 6.3

Occupational Distributions of Generations (%)*

	Generation	Non-Manual	Manual
Scotland 1975 n = 4468	Fathers	34.5	65.5
	Sons	46.2	53.8
England & Wales 1972 n = 9423	Fathers	46.1	53.9
	Sons	55.3	44.7
U.S.A. 1962 n = 27,592	Fathers	29.5	70.5
	Sons	39.6	60.4

Sources: Scotland: Scottish Mobility Study data
 England: Goldthorpe & Llewellyn (1977b, 273)(non-manual = I - V inc.)
 U.S.A.: Blau & Duncan (1967, 496)(excludes 'farmers'; non-manual = 1 - 7 inclusive)

* Different classification schemes make the comparisons approximate only.

These three recent examples provide some indication that sons have a better chance of obtaining white collar jobs, but we need to look at this in more detail than just at the level of probabilities. Underpinning the effect are the actual social processes through which individuals enter occupations. The allocation mechanism ensures that only individuals with certain attributes may enter given occupations: race, gender, and educational qualifications are obvious examples of entry attributes. Although people do change their occupations, these changes are not random: not only are some occupations barred because the basic entry attributes are different, but the individual's own work experience rapidly becomes a further occupational entry attribute. For example, the skilled manual worker in a factory may subsequently become a foreman and even a manager in that company or industry, but he does not suddenly become a brain surgeon. To do that he would have to retrain and start again at the bottom. His skills are not transferable. Nor can the highly-educated brain surgeon easily obtain a job on a building site should he wish it, even though the builder's labourer has few formal skills and the trade has a tradition of high labour turnover. Faced with two job applicants, a choice between an experienced builder's labourer and the unknown quantity, an ex-brain surgeon, the typical employer will opt for the devil he knows.

In other words, occupations are organised into 'channels', with very limited inter connection between each channel, or to use Stewart et al's simile (1980) taking up an occupation is like starting on a train journey: once started, it is hard to reach any other destination, despite a number of junctions in the rail system. Because men become caught up in the occupational system, it is not easy for the labour force as a whole to adapt quickly to new demands for a different kind of skill. Popular political and journalistic comment about the current need to retrain and change occupations in mid-career fails to recognise the human investment that goes into twenty years of working in one job, or rather in one "occupational channel". The very limited success of government re-training programmes in the last two

decades is another indication of the rigidity of these channels, even for workers whose skills and experience are now surplus to requirements. Both trade unions and employers play key roles in maintaining the boundaries of these channels. Rather than mature workers transferring from one old channel to a new one, it is easier to divert some of the newcomers to the labour market. This protects the incumbents of a declining channel, and reduces the intensity of the inevitable dislocation of redundancy. It is also easier to set up, as the educational system is geared to younger people and can be adapted to provide new training and careers counselling. Apart from a brief interim period before a new occupation is identified, employers in expanding job sectors turn to the new generation for its recruits. To take one example close to home, the occupation of "sociologist" rapidly passed through an era in which its recruits were converted from other disciplines such as history, philosophy, and even engineering, into the golden sixties when the majority of present members entered the profession directly through the newly created departments of sociology in the post-Robbins Universities and Polytechnics (Payne et al, 1981).

In sum, the differences between fathers and sons does not lie only in a simple stochastic process, but also in the workings of the relevant institutions. As the occupational structure changes, its effects impinge most immediately on young workers, for whom new opportunities open up more readily than for older workers. As a result, there is a built-in potential for upward social mobility, as blue-collar trades contract, and new white collar trades expand.

Differential Fertility

However, the figures that we saw in Table 6.3 do not derive solely from this underlying process of occupational transition. A second historically-specific process which gives rise to differences between the fathers' and sons' distributions as seen in mobility tables is differential fertility. Broadly speaking, working class fathers each have more children (and therefore of course more sons) than do middle class fathers. A sample of the sons would find more who said their fathers were working class, because there would be

a greater chance of working class sons being sampled. This would lead to an overestimate of the proportion of working class fathers (Glass, 1954; 191).

Consider the following example: suppose there were only two classes, A and B, of equal size, and the population remained unchanged over two generations; but class A fathers had on average one child each (0.5 sons per father), while class B fathers each had on average three children (1.5 sons per father). We draw a sample of eight sons and ask them about their fathers. Regardless of the occupations of the sons, the distribution for eight fathers would be:

Fathers	A	A	A	A	B	B	B	B
	↓	↓	↓	↓	↓	↓	↓	↓
Birth Rate	0.5	0.5	0.5	0.5	1.5	1.5	1.5	1.5
	└──────────┘				└──────────┘			
Sons	a		a		b	b	b	b

6 out of 8 sons (the b's) would say that their fathers were class B, and only 2 out of 8 (the a's) would declare class A. Therefore our estimate of the fathers' occupational distribution on the basis of the sons' answers would not be 50:50 but 25:75 (for further discussion see Allan and Bytheway, 1973).

In other words, we would expect a mobility table to exaggerate the proportion of fathers with manual jobs (because they have larger families), so that even with no real occupational transition, there would be an appearance of difference between the fathers' and sons' occupational distributions, such that more of the sons seemed to be in non-manual employment.

As a concrete illustration, the fertility for women married between 1900 and 1909 was 2.64 for R-G Class I, ranging to 4.17 for R-G Class V. Marriages contracted between 1927 and 1931 (and enumerated 20-24 years later) produced from 1.88 to 3.18 children for the same classes (Carr-Saunders et al, 1958; 25). To some extent these differences in crude averages are 'damped down' by infant mortality, so that 1.88 becomes 1.78 while 3.18 becomes 2.74 (M.o.H,1956; 233) and the rate for sons becomes thereby approximately 0.89 (below full self-replacement) and 1.37. The manual/non-manual 'differential' has been remarkably

constant, in relative terms, over the early part of this century' at around 1.9 and 2.7 live born children (Carr-Saunders et al, 1958, 24).

Unfortunately, it is not possible to relate these changes in a direct way to the Glass mobility table for England and Wales. In practice, Glass's 'generation' of sons was aged from 20 to 64 in 1949, that is, born between 1929 and 1885. Thus the fertility rates cover a span of 44 years, during which time they were changing. As Glass himself has indicated elsewhere, the fertility differential between manual and non-manual classes was about 1.2:1 for marriages in the 1870s and increased to about 1.4:1 around the time of the Great Depression (Glass 1969, 44; and private correspondence, 1976). The published information on this is somewhat limited, and moreover, is presented in terms of several classifications, including the Registrar-General's class schema⁽⁸⁾. It is therefore not possible to specify the effect of differential fertility on the mobility table without a very considerable and intensive study, including the re-classification of original records, which lies outside of the focus of the present work, combined with a year by year matching of each annual component of the sample with its relevant class fertility rate. The situation on the occupational transition dimension is even poorer: there is no year-to-year data, so that one is dependent on Census data available only at 10 year intervals. Inevitably we must be contented with an approximation.

Glass's sons were born from the 1880's on, i.e. in the period when the class differential in fertility was in excess of 1.35:1.0 (Glass and Grebennick, 1954). Furthermore, the bulk of the increase in the differential was achieved by the early years of this century (Carr-Saunders et al, 1958, quoted above). About two-thirds of Glass's sample was born after 1900, so that we can set the approximate average differential for the whole period as $\frac{(1 \times 1.35) + (2 \times 1.42)}{3}$ = 1.397. This slightly underestimates the differential: therefore if we take the

(8) It is remarkable how little this topic appears in otherwise lengthy discussions of fertility: see for example Hawthorne, 1970; Busfield and Paddon, 1977; Cotgrove, 1967, and other commentators on Bank's (1954) thesis on class differentials in fertility.

figure of 1.4:1 as applying throughout the period, we have an estimate which is still a cautious one, even allowing something for class differential in mortality⁽⁹⁾.

Thus we can argue that if we treat the reported number of non-manual fathers as a base figure for the real number in the fathers' generation, then the number of reported manual fathers overestimates the real number by a factor of 1.4. In other words, the 2199 'manual' fathers (i.e. using Miller's (1960) version of Glass's data, as against Glass's categories 5, 6 and 7 which actually include routine white collar occupations) reported in the sample represents 1571 in the real distribution. This would give an occupational structure in which there were really 54.8% manual and 45.2% non-manual fathers, instead of the 62.9% and 37.1% in the reported case. The estimate of 8.1% difference in the proportions could of course have been derived from taking the reported number of manual fathers as the base and weighting up the non-manual reported figure instead⁽¹⁰⁾.

(9) Obviously the average differential between the extremes, say R-G's Class I and Class V, could be calculated in basically the same fashion and would be much greater.

(10) The Pattern of Fertility since 1880 is as shown in Table 6.4

TABLE 6.4: Differential Fertility*

Date	Live Births for Completed Families		
	(a) <u>Non-Manual**</u>	(b) <u>Manual</u>	<u>Ratio (b) to (a)</u>
1880 - 1886	4.35	5.87	1.35
1887 - 1889	-	-	-
1890 - 1899	3.50	4.83	1.38
1900 - 1909	2.81	3.96	1.41
1910 - 1914	2.36	3.36	1.42
1915 - 1919	2.07	2.94	1.42
1920 - 1924	1.90	2.72	1.43

* Sources: Glass and Grebennick, 1954:
 1880 - 86: Table in footnote 2, p. 108
 1890 - 99: Table 36, p. 107
 Remainder: Table 5, p. 4

** Glass and Grebennick use a variety of classifications, most notably 'manual' and 'non-manual'; and 'status group I' and 'status group II', which seem to be the same. The three sources in Table 6.4 all use the manual/non-manual classification. It should be remembered that the absolute levels of fertility are subject to effects such as differential age at marriage, and mortality. However, the authors argue that the ratio does not change very much if corrections are made: For example Table 35, p. 106, gives Status I: Status II ratios for the 1900s as 1.41; 1.41; 1.40; and 1.41.

(footnote: continued on following page)

While it is useful to obtain this estimate, the more significant point of this argument is the general one that the reported difference between fathers' and sons' occupational distributions under-estimates the number of middle-class fathers and over-estimates the number of working-class fathers. It therefore creates a picture in which there appears to be even more inter-generational occupational transition than is in fact the case, which in turn generates more upward mobility. The occupational transition effect and the class differentials in fertility are complementary.

Fathers' and Sons' Distribution in Glass's Data

The effects of these processes should be evident in the following distributions of fathers and sons taken from the LSE study: the dotted line indicates the middle-class boundary. Table 6.5 is not a mobility table; it says nothing about how pairs of fathers and sons fit into particular classes, because the two columns are discrete.

(10) - continued

An alternative method of calculation is to take the number of men reporting fathers in each category, divide by the fertility rate, and then weight up the results by the necessary factor to reproduce the original total number of fathers. This can be done for each decade, drawing from Glass's (1954) tables 1 and 6, and 6.2 E.g. for pre-1898 births:

i) Listed non-manual fathers	250	Listed manual fathers	429
ii) Divided by non-manual fertility	2.13	Divided by manual fertility	2.94
iii) Gives	117	Gives	145.9
iv) Which weighted up by 2.582 (i.e. $\frac{679}{(117 + 146)}$) =	302	Which weighted up by 2.582 (i.e. $\frac{679}{(117 + 146)}$) =	377

This system applied to each decade provides a weighted estimate of 39.7% non-manual and 60.3% manual, as against the more straightforward estimate of 40.4% and 59.6%, i.e. using Glass's categories 5, 6 and 7 because Miller does not provide sufficient detail to repeat our earlier calculations. The difference between the reported and 'real' figures is around 7 percentage points using Glass's data, or 8.1% using the alternative method.

TABLE 6.5 Occupational Distributions of Fathers and Sons in Social Mobility in Britain.

Source: Glass, 1954; 180-3.

	<u>Father's Occupation as reported by Son</u>	<u>Son's Occupation as reported by Son</u>
1. Professionals	129	103
2. Managerial/Executive	150	159
3. Higher Non-Manual/Supervisory	345	330
4. Lower Non-Manual/Supervisory	518	459
<hr/>		
5. Routine non-Manual/Skilled Manual	1510	1429
6. Semi-Skilled Manual	458	593
7. Unskilled Manual	387	424
TOTALS	3497	3497

It will be immediately apparent that the two distributions do not differ greatly from one another, and that the difference between them in 5 out of 7 classes is not as expected. Classes 1, 3 and 4 of the middle class sector show more fathers than sons, while working classes 6 and 7 show fewer fathers than sons. If we split Class 5 into white collar and skilled manual (following Miller, 1960; 71), then routine white collar shows more sons than fathers, 244 to 156, and skilled manual shows fewer sons, 1185 to 1354, both differences being in the expected direction. However, on the basis of Miller's conversion, fathers and sons are almost exactly equal: a difference of only three cases between number of non-manual fathers and non-manual sons.

But it is known that all these figures distort the real distribution because of differential fertility, so that actual situation is one in which there are generally even more middle-class occupations in the father's generation than shown, and even fewer working-class occupations. So the full extent of the difference is under-estimated. The Glass mobility table appears

to refer to a society at a time when the middle class has contracted and the working class expanded, against the thesis of occupational transition.

However, as we earlier showed from census data, for at least the last 30 years of the period covered by Glass (i.e. the period including for most of the sample the reported 'father's job'), there was an expansion of the middle class. Thus it can be concluded that on the one hand there is census evidence of an expansion of perhaps as much as 17%, controlling for population growth, while on the other hand the Glass data show a contraction of 18%⁽¹¹⁾. Even if the exact magnitudes of these percentages are based on approximation, it still seems reasonable to raise questions about the validity of the sample data.

To what extent can Glass's data be reconciled with these doubts? In the first place, we need to eliminate one tempting possibility: artefactual distortion due to definitions. Unlike his successors, Glass operationalises mobility by comparing the sons' occupations with the last known occupations of the fathers (Glass, 1954, 179). Later studies have used an earlier occupational status for the fathers, namely a job point during the sons' later schooldays, such as when the sons were aged 14 (or less commonly, 16). This has the advantage of connecting father and son sociologically, as the impact of family background is at its greatest when

(11) As Table 6.2 (above) showed, the male work force for England and Wales was 11,744,994 in 1921. Had the non-manual class made up the same proportion of that total as in 1951 -- 35.1% -- then there would have been 4,122,493 non-manuals, an expansion of 602,789 on 3,519,704 (the number of non-manuals in 1921). That is, an expansion due to occupational transition, but controlling for the growth of the labour market, of 17.1%.

The contraction of 18% is given by taking the difference between the son's distribution as reported by Miller (1295 non-manual) and the estimated 'real' father's distribution (i.e. allowing for differential fertility) of 45.2% of 3497, that is 1582 non-manual. The difference of 287 is expressed as a percentage of 1582 (18.1%).

both father and son are members of one household, and the son is at a crucial stage of his education. It also allows for the use of path analysis, since the logically prior father's occupation can be shown to be chronologically prior. It has the disadvantage, compared with Glass, that the father may yet experience more mobility between the time when his son is 14 and the end of his own career, so distorting the measurement of mobility. In fact, the average age of the father when his son was 14 would be in the late forties, so that a degree of stabilization would have already occurred. The weight of advantage seems to lie in the operationalisation of father's job at the time his son was about 14, which has almost universally been adopted.

In the present context, it might be argued that by Glass's taking the fathers later in life, they would be more advanced in their careers and so more represented among the non-manual sector. This might account for the symmetry of the mobility table. There is no precise answer to this suggestion, although there is indirect evidence to the contrary. Firstly, we have just observed, the fathers' careers are on average well advanced by the time their sons reach 14 years old: Glass suggests 34 for the age of the father at the birth of his "mid-child", which means 48 years old by the time the mid-child is 14 (1954, 191). As we shall see for Scotland in the section on intra-generational mobility, most careers have run their course by this stage. On the basis of Harris and Clausen's Labour Mobility in Great Britain (1966) Goldthorpe et al have recently argued that by the time men are aged 35 and over, they

'will tend to have achieved a stage of relative 'occupational maturity', in the sense that from then onwards one may expect if not a cessation at all events a marked falling off in the probability of job changes which involve major shifts in occupational level' (1980, 51-52).

We would therefore expect little difference to emerge from the use of different time points.

A second indirect source is the 1975 mobility data for Scotland. As Table 6.6 shows, the predicted pattern of differences in the two distributions is present when 'father's last job' is compared with that of the son:

TABLE 6.6 Occupational Distributions of Fathers and Sons in SMS, 1975

<u>Occupational Class*</u>	<u>Father's last Occupation as Reported by Son</u>	<u>Son's Current Occupation as Reported by Son</u>
1. Professional/Managerial	303	550
2. Semi-professionals, Supervisory	585	689
3. Foremen, s.e. artisans	585	645
4. Routine White Collar	168	267
<hr/>		
Non-manual Subtotals	1641 (35.3%)	2151 (46.3%)
<hr/>		
5. Skilled Manual	1088	940
6. Semi-skilled Manual	872	897
7. Unskilled Manual	1047	660
<hr/>		
Manual Subtotals	3007 (64.7%)	2497 (53.7%)
<hr/>		
TOTALS	4648	4648

* Classes not those used by Glass

There is one exception: Class 6, semi-skilled manual, where instead of there being fewer sons than fathers, there are 25 more. However, each of the other classes does fit, and the overall non-manual percentages are 35.3% for the fathers and 46.3% for the sons. If one had used the father's job when the son was 14, the comparable percentages would be 34.5% and 46.3% and all seven of the classes follow the expected pattern.. Despite the common sense expectation that the greater difference between the distribution, the greater the mobility, such are the detailed changes that there is marginally more mobility when one uses the father's last job as the

destination. On these several items of indirect evidence it is concluded that choice of job point for the father does not account for Glass's data being a 'deviant' case.

Glass's Explanation of his Results

It should be recognised that Glass himself was aware of the problems with his data and attempted to deal with them, although with only partial success. Indeed, his explanations may have unwittingly contributed to later mis-interpretations of his position, because he stressed the stability of the occupational structure and suggested that differential fertility was a phenomenon the impact of which is minimised by its occurring mainly in the recent past:

Mortality is correlated negatively with social status, but so is fertility, so that the two factors will tend to counteract one another. It is unlikely, however, that they will completely cancel each other. Having regard for the historical development of social status differences in fertility, it is more probable that, relatively, the bias towards the representation of "manual" fathers will be greater on the more recent than the earlier cohorts' (Glass, 1954, 191).

In view of the little attention that it received from later commentators, Glass's discussion of this appears to have been taken as implying that the class fertility differential is not too important, because of the late appearance of the differential, and the countervailing affect of mortality. However, as we have shown above, the fertility differentials do effect the whole sample, and adjustment for mortality only very partially counteracts the differential (see Glass, 1969, 44, and Parker et al, 1972). It follows that the differences in fertility effect between the early and late cohorts covers more of the sample than some later commentators may have taken Glass to mean.

Glass also recognises the occupational basis of the discrepant father/son pattern, but while accepting that it appears unusual, he goes on to argue that it represents a genuine change in the social structure of Britain. He writes that the data suggest

'a slight decline in the opportunities for high status over time, a decline which appears in the data for the subjects' fathers as well as for the subjects themselves ... the most likely conclusion is that there was no important change between 1911 and 1941 in the proportion of 'non-manual' employment for the (fathers) concerned ... the increase in the proportions of 'manual' occupations - and therefore of occupations of relatively low rank in the prestige hierarchy - as the more recent decades of birth are approached, is genuine' (Glass, 1954, 190, 192-4).

Thus Glass accepts his data as being valid, even if 'somewhat unexpected' and requiring some justification. He argues that his finding of a contraction of middle class opportunity is not necessarily

'in conflict with the known fact that certain specific types of white collar occupations have greatly expanded over the past fifty years. It would mean, however, that other occupations of comparable status have contracted to an even greater extent. And also that the expanded opportunities in certain white collar occupations have been taken over by women' (Glass, 1954, 190).

But he does not elaborate on which specific occupations he has in mind, and he does not relate his findings to the thesis of occupational transition - although of course the state of such theories in the 1950's was less advanced than the present day. Instead, he uses the 1951 census data as a comparison - or as Ridge has noted in the context of discussing peculiarities of brother/subject/father differences, the original investigators

'seem to have been somewhat surprised, and attempted by manipulations of census statistics to show that the same trend can be observed on a status scale other than that of Hall and Jones' (Ridge, 1974a, 91).

Glass and his colleagues present two tables of comparison with the 1951 census, one for the fathers and one for the subjects. Since the argument is essentially the same for both, we shall deal mainly with the latter, because the data on the fathers are a poor estimate of true occupational distribution due to the differential fertility factor.

Glass claims that the occupational structure has led to an increase in categories 4 to 7 inclusive ('manual')⁽¹²⁾ in his sample, from 78.7% for the

(12) The form 'manual' is adopted to emphasise that, strictly speaking, Glass is not talking about manual workers but a somewhat larger category including some lower white-collar workers.

oldest 10 year cohort, to 89% for the youngest cohort, with a consistent trend for each cohort in-between. He compares this with 1951 data (i.e. from a single census) showing that the R-G's social classes 3 to 5 inclusive (again 'manual') has similar scores of 78.4% to 87.7% for the same cohorts. This is shown in Table 6.7:

TABLE 6.7 Proportions of 'Manual' Respondents in four cohorts as reported in Social Mobility in Britain

Source: adapted from Glass, 1954, Tables 1 and 12; 181 and 194.

Cohort Born in	Glass Sample		1951 Census
	Total	% 'Manual' (Cats.4-7)	% 'Manual' (R-G,3-5)
1890 - 1899	540	78.7	78.4
1900 - 1909	751	79.7	79.2
1910 - 1919	772	83.1	81.5
1920 - 1929	755	89.0	87.7
Overall	3497	83.0	81.3

It is Glass's argument that the smaller representation of older men in the 'manual' sector indicates a shift in the underlying occupational structure, towards the manual sector. In other words, the older men entered occupations when there were more 'non-manual' ones available - so fewer are in 'manual' occupations now - whereas the younger men were competing for a contracted supply of 'non-manual' jobs, and so were forced to appear in greater numbers as 'manual' employees.

A re-examination of the Census data, this time including the three Census points 1921, 1931 and 1951, and using approximately the same categorisation scheme shows the same general level of the dichotomy but its pattern over time for economically active males does not uphold Glass's position.

TABLE 6.8 Changes in Proportions of 'Manual' and 'Non-Manual' Economically Active Men aged 20-64 in Scotland, England and Wales, 1921, 1931 and 1951.

Source: Census Occupation Tables (See Chapter 5)

	'Manual' (SEG's 6-12, 15)			'Non-Manual' (SEG's 1-5,13,14)			Totals (excluding armed forces etc)		
	England & Wales	Scotland	Combined	England & Wales	Scotland	Combined	England & Wales	Scotland	Combined
1921	86.8	86.2	86.7	13.2	13.8	13.3	11,744,964	1,480,834	13,255,798
1931	88.1	87.7	88.1	11.9	12.3	11.9	13,247,333	1,542,253	14,789,586
1951	84.8	85.1	84.8	15.2	14.9	15.2	13,419,178	1,540,784	14,959,962

These figures, taken direct from the censuses for 3 different time points, indicate that the 'manual' sector fell by 2% between 1921 and 1951, despite the important fluctuation in 1931 due to the Depression, whereas Glass's figures, based on the cohorts of a single census, give the impression of a monotonic 9.3% increase overall and 8.5% for the 3 youngest cohorts. The use of the three census time points is more reliable than an estimate based on cohorts at a single time point. The findings from the three censuses match those of Bain et al (1972) who, using a slightly different categorisation scheme on the occupational population of Britain, also report 1921 has a lower proportion of manual occupations than in 1931, but higher by around 2% than in 1951. In addition, 1911 shows an even lower figure than for 1921, albeit by less than 1% (Bain et al, 1972, 113). Goldthorpe (1980, 60) reports a contraction of 5%, slightly more than does Routh (1965, 4-5). Other writers on evidence of varying reliability have also supported the view that the long term trend in industrial societies has been for a contraction of the manual sector, not the expansion Glass has claimed (See Chapter 3).

This interpretation is supported by the distribution of a sample of Scots born between 1910 and 1929. These men are the contemporaries of Glass's two youngest, 1910-1919, and 1920-1929 cohorts. While perfect correspondence is not to be expected (sampling error, national difference, coding compatibility), the direction of the difference between the two sets of figures, taken for caution's sake at a crude level, suggests that very similar men may be proportionately less 'manual' at a later stage in their careers. 16.0% of the Glass 1910 cohort were in 'non-manual' jobs (categories 1-3, Glass, 1954, 186): interviewed in 1975 the Scottish 1910 cohort reported 23.6% currently in 'non-manual' jobs. Glass's (younger) 1920 cohort were only 11.0% 'non-manual' in 1949: 27.5% of their Scottish contemporaries by 1975 were holding 'non-manual' jobs⁽¹³⁾. If one accepts for a moment that both the Glass and the Scottish data on respondents themselves are reliable, then we are left with a career effect which helps to explain the difference between the reported levels of non-manual employment.

It is not unreasonable to suggest that age and hence intra-generational 'career' mobility takes sufficient men out of the manual sector through promotions to produce the cohort illusion which Glass takes for the real occupational structure. In other words, each successively younger cohort is more manual, but because the men are younger, and not because the occupational structure has changed.

Indeed Glass himself presents conflicting evidence. In a footnote discussing Bowley's work and updating it, he shows a small increase in 'non-manual' male occupations which he does not explain beyond reference to 'important elements of non-comparability' (Glass, 1954, 193). And while Glass also claims to find an expansion of the 'manual' sector for three groups each aged 45-54 in the 1911 to 1931 Census (Glass, 1954, 191-2), this evidence is not only bedevilled by comparison problems, but confuses age equivalence with functional career equivalence.

(13) It should be noted that overall, England and Wales has more non-manual occupations than Scotland. Therefore to find that it was the Scots in 1975 who were more non-manual than Glass's men suggest that 'career' maturity may have a considerable effect.

That is to say, entry to an occupational sector (such as foreman, or manager) is not always at an identical age for all men at all historical periods, even if entry into the "non-manual" sector always on average increases with age for any one cohort over time. This is because of institutional changes, such as educational reforms and the growth of credentialism, and historical events such as wars which affect men of different ages in different ways (for some, career prospects may be improved by the death of rivals or seniors, but in turn that accelerated group constitute a greater block to promotion for the next youngest cohort). The occupational situation of any cohort is the product of 3 major factors:

- a) Its unique historic location, which no other cohort can ever share
- b) Its stage of career cycle, that is to say, its seniority, which other younger cohorts will in turn occupy; and
- c) The changing occupational structure (with its expansion of non-manual opportunities) which applies to all cohorts, albeit more to the youngest cohort in the process of training and recruitment as this group is the most 'flexible'.

The inter-play of these factors is complex, but Glass has interpreted the data on the three 45-54 year old cohorts and the data in Table 6.6 above solely in terms of the last of these factors. He has mistaken what may be changes in access to certain jobs at different career stages for changes in the overall structure. By the same token, the evidence for the Scottish labour force quoted above must be regarded with caution because the increase in the non-manual proportion is not only due to seniority, as we implied, but is also due in part to changes of occupational structure. (14)

(14) Although cohorts generally display little difference between their average status levels, this does not necessarily mean there is no career effect. It may be that older cohorts have benefitted from career mobility, but that younger cohorts have benefitted disproportionately more from the expansion of the non-manual sector, i.e. structural mobility. This kind of pattern therefore appears as the dominant one in current mobility studies which reflect the expansion of industrial society throughout this century, but see Hauser (1975b, 588-590) for a difference of emphasis.

Alternative Explanation of Glass's Results

Because of these observations about changes in the occupational structure, age-effects, and differential fertility, Glass's interpretation of the problems apparent in his data cannot be accepted as a solution. The problems persist. Because gross mobility rates are necessarily dependent on the marginal distributions, 'Social Mobility in Britain' provides an unreliable estimate of intergenerational occupational mobility, which in turn will require the revision of those of our theories of class relations in Britain which derive from the 1949 study.

If this is accepted, it is still an open question as to what went wrong with the LSE inquiry. The sample design is not obviously faulty, the response rate of 9296 out of 12,924 (75.9%) is respectable and the age/marital status comparison with the Registrar-General's estimates suggest that the achieved interviews provided an adequate representation of the population. Glass says that while there is some small bias in the age and marriage composition, it is doubtful if this is serious enough to affect the analysis, in part because the use of cohorts eliminates the over-weighting of some age groups. The other variables --

'fertility and attainment of secondary education - do not appear to have been affected to any considerable extent ... In sum, therefore, though the sample is by no means perfect, the bias involved is not likely to be crucial and is to a substantial extent counteracted by the method of analysis' (Glass, 1954, 92).

Indeed, as indicated below, the occupational representativeness of the respondents is not what is in question, since again, though not perfect, the bias is not great and it does not provide an explanation for the deviant fathers' distribution. By the same token, an over-representation of older age groups and married men does not explain the fathers' pattern. It would be an unfortunate chance if a sample which is unexceptional on five variables should be widely deviant on a sixth which in turn we might expect to be related to at least some of the five.

A second possibility is a class differential in attrition rates: if migration and war casualties selected disproportionately for the sons of

working class fathers, then the residual population would appear to have an excess of middle class fathers, because only the sons of the middle class would remain to be sampled. If this were a major effect, it would impinge most on the young men who fought the 1914-18 war, and who later participated in the great emigration of the late 1920's; that is to say, men born between 1890 and 1899. This cohort is only 75% of the size of the other complete cohorts (Glass, 1954, 90), and so if there are significant differential attrition rates, this cohort should demonstrate them, assuming that some general process of adjustment has not since intervened.

In the first place, cohort 1890-99 does not show a marked excess of non-manual respondents, a necessary condition if its working class population has suffered differential attrition. Its proportion is 21.3%, only 0.9% more than the next youngest generation. Second, although the cohort does have a higher proportion of non-manual fathers (20.6% in categories 1, 2 and 3, while the others score 16.3%, 17.4% and 14.6% in descending order of age) it is in line with the pre-1890 cohort which also has a high proportion, 21.6%, but which has not been reduced in size by the war. Furthermore the 1890-99 reduced cohort's net contribution of fathers is small precisely because it is a smaller cohort. Third, the marginal totals for the study mean that some downward mobility was almost inevitable - but within the differential attrition model, there is no immediate explanation of why the working class sons of middle class fathers were not equally at risk as working class sons of working class fathers - so sharply reducing the chances of the downwardly mobile of getting into Glass's sample. One is still left with the lack of fit between the fathers' and sons' distribution in a sample which adequately represents the population from which the respondents were drawn. Furthermore, another study only two years later (Benjamin, 1958, 266) reports 26.6% non-manual fathers and 34.3% non-manual sons (as against Glass's 37.1% and 37%).

It is, therefore, necessary to suggest that there is something seriously wrong with Glass's data, most probably in the father's occupations. The source of error may be something to do with the respondent's accuracy or veracity; it may lie in the interviewing technique; it may be a coding

problem, or a combination of any of these. There is now no way to tell,⁽¹⁵⁾ although the discussion below reviews some further possibilities. But in the absence of some explanation which can also restore confidence in the data, it must be strongly urged that conclusions based on the mobility rates reported by Glass be held in abeyance.

This sceptical approach to the Glass data is not the position adopted by others writing since the father/son peculiarity became known. Perhaps it is the very recognition of the fact that the fathers' distribution does not represent a population in the normal sense that has discouraged them giving the matter further consideration. The international comparative sociologists (Bendix and Lipset, 1959; Miller, 1960; Svalastoga, 1965; Fox and Miller, 1966; Cutright, 1968; etc.) have all accepted Glass without question - as one would expect, given their general orientation towards grand comparative exercises and their lack of interest in cultural and historical variations.⁽¹⁶⁾ Bibby remarks on the similarity of the two generations, but uses the data as the cornerstone for his discussion of mobility measures (Bibby, 1975, 125). Duncan-Jones notes that 'it is well known that this table has rather a regular pattern' (Duncan-Jones, 1972, 195): again, he uses the data in his exposition (both Bibby and Duncan-Jones employ the Miller version of the Table 2 data (Miller 1960)). It is slightly ironic that the development of the various coefficients and methods of analysis have used concrete examples drawn from a table that is so untypical of mobility tables generally.

Noble is one of the few commentators who has criticised the LSE study; however despite doubts about the sample, he does not argue for the rejection of Glass's findings (Noble, 1972, 1975a). He suggests that the 1949 study

'which is correctly indicating little change in occupational

(15) The interview schedules were destroyed as part of standard Civil Service procedures, and so are not available for analysis.

(16) For a comment on the difficulties inherent in comparative analysis, see Payne, 1973a.

structure, but, simultaneously, over-representing non-manual workers among the respondents, may also seriously over-estimate the non-manual element in the generation their fathers represent '(Noble, 1972, 428).

In other words, he attributes the excess of non-manual fathers to an excess of non-manual sons in the sample. However, this involves a number of misinterpretations. Firstly, Noble's statement is predicated on the assumption that Glass correctly indicates little occupational change, whereas the actual change, as indicated above, is very different from the picture Glass presents. Secondly, to what extent does Glass over-represent the non-manual sons? Noble gives four different figures for the non-manual proportion in 1951: 26.4%, 38.4%, 32% and 37%. The first is for all males, the second is for household heads (both taken from the 1951 Census of Great Britain), the third is from Benjamin's study (Benjamin, 1958), and the fourth is Miller's classes 1 to 3a, taken from Miller's account (which despite Miller's claim, refers to England and Wales only). Noble uses the difference between the first and last of these figures as an indication that Glass's sample is unsatisfactory.

However, the correct comparison with the 37% reported as non-manual sons by Glass is the age-adjusted English and Welsh civilian population figure for R-G's 1951 classes 1, 2 and 3, less the skilled workers, SEG 10: this gives 35.5% as the census estimate, or an error of 1.5% (Census 1951, Occupation Tables, 148-9, Nos. 17 and 18). The earlier discussion of 'non-manual' by Glass gave the sample sons as 17% 'non-manual' (Table 3 above, categories 1, 2 and 3), as against the census estimate of 18.1%. So that while the sample is not perfect, its small error lies mainly in its shortage of upper middle class (categories 1, 2 and 3) and its excess of lower middle class representation (category 4 and the routine white-collar part of category 5, which contribute to the 37% figure). But the extent of the over-representation is not as great as Noble implies, and the

larger part of it appears in the classes which are most open to imprecisions of coding. (17)

Even if there is an over-representation of non-manual sons, along the general lines of Noble's argument, this only relates to an excess of non-manual fathers provided that one accepts that there are high self-recruitment rates. But belief about these rates is of course largely based on Glass's work, so that an element of tautology creeps in. If we accept the figure of 1.5% excess of non-manual sons, this appears to be equivalent to saying that about 54 cases in the first five categories of Miller's data should really be manual workers. But none of these could be removed from the top three categories because these are already in deficit (by about 1.1% in the under 60's part of the sample) and indeed require an addition of, say, around 40 more non-manuals. The total effect is that the upper three non-manual categories (1 to 3) have 592 cases (17%) and should have 633 (18.1%), while the lower two non-manual categories 4 and 5a, have 703 (37% - 17%) and should be 608 (35.5% - 18.1%), for an overall non-manual total of 1241 (35.5%). But if we assume that adjustment to non-manual sons changes the number of non-manual fathers by one for every son (i.e. assuming perfect self-recruitment at this dichotomous level), then while categories 4 and 5a would contribute fewer middle class fathers,

(17) The concentration of over-representation in categories 4 and 5a is important, because they have particular mobility characteristics which ramify throughout the mobility matrix. In general, lower grade supervisory staff (e.g. foremen) and routine grades of non-manual work (e.g. clerks and shop assistants) are among those categories more likely to be recruited from a wide range of backgrounds (Goldthorpe, 1975, 9-10). In the Scottish Mobility Study, the coding of supervisors and inspectors proved technically difficult and despite detailed checks and recodings, the eventual sample showed about 8% foremen, compared with the 1971 census figure of 5% (although these figures are not for strictly compatible populations and the census figure should be marginally lower). Presumably this is a self-inflation effect, and it may be that part of the problem with the Glass data arises from a similar phenomenon.

Among other very helpful comments on an earlier draft of this chapter Trevor Noble has pointed out the difficulty of allocating SEG 8 (service workers) who should really be split between Hall-Jones categories Va and VI. If SEG 8 is reclassified as manual as Noble has done, then the Glass/Census comparison becomes 37%/31.3%, which is more in line with his criticism of the sample.

categories 1, 2 3 would contribute more; the 39 cases which are moved would 'take with them' their fathers, so that we would still have exactly the same excess of fathers, proportionate to the number of sons. If one assumes, more realistically, a more moderate degree of self-recruitment then the excess of non-manual fathers in class 1, 2 and 3 increases absolutely although not relatively, while the excess in 4 and 5a becomes relatively greater (since removing one son removes less than one father). Conversely the new replacement manual sons add less than their own number to the manual fathers, which worsens the shortage of manual fathers because the sons' total is increased more than the fathers'. This effect will be limited by the fact that there is less downward than upward mobility in industrial society, so that adding manual sons add mainly to the manual fathers whereas any adjustment to the non-manual sons has some effect on the manual fathers. Again, the impact of adjustment in one category depends on its size and pattern of recruitment. We are therefore unable to accept Noble's explanation of the discrepancies in the fathers and sons distributions.

Noble's original comments about errors in the sample develop from his view of age and career effects. He argues that household-heads have a higher social class rating than 'all males' (26.4% and 38.4% non-manual in 1951), and because men with sons are more likely to be household-heads, than 'all sons', there should be more fathers in the non-manual category than sons (Noble, 1972, 427). It is for this reason that he is less worried by the over-representation of non-manual fathers. However, since Glass is talking about men aged 20 or over, 'all sons' are closer to marriage age and household-headship than 'all males', the latter including males 15 - 19. So if Noble is correct, 'all sons' should occupy the middle ground between household-heads and 'all males'. It has already been shown that on the categories 1 - 5a definition, 35.5% of 'sons' over 20 years old are non-manual; this compares with 36.0% for all males and 37.0% for household-heads (Marsh, 1965, 200). (37.0% is chosen in preference to Noble's 38.4% in order that all three sets of figures are calculated in an identical way).

Thus, firstly, the difference between household-heads and males is not as great as Noble suggests (1.5% or at most 2.9% on Noble's figure) and secondly, the 'all males' are more 'non-manual' than their older 'all sons', so suggesting that the age/household-head effect is more complicated than it initially appears. Furthermore, an age effect on this scale would show up if the occupational structure was nearly stable, which contrary to Noble's view, it was not. So although he is aware of the peculiarities of the 1949 data, his assumptions about structural continuity and career effects prevent him from recognising the importance of the fathers' over-representation.

Similarly, while in a 1972 paper Ridge and Macdonald have commented on the way that the pre-dating fathers' distribution resembles the later sons' distribution (Ridge and Macdonald, 1972, 142), they continue to use the 1949 data in a search for mobility trends (and Ridge has carried out further analysis more recently; see below). As they say, their tables for 1949, 1951 (Benjamin, 1958) 1962 (Runciman, 1966) and 1963 (Butler and Stokes, 1969) show no clear patterns, and they hesitate to draw conclusions about trends from the evidence of those four tables. Having considered the lack of comparability due to different time points for the fathers' jobs, due to non-response, and the option of 'concocting a tale' to fit the discrepancies and finding in none of these solutions a satisfactory answer, they raise the possibility of eliminating one table. But because the criteria for selecting 'a table to discard are unclear' (Ridge and Macdonald, 1972, 142) they leave the question open. The implication of their elimination idea is that the Glass data is the odd-man-out: without it the sons' non-manual proportions would be 34.3%, 35.6% and 37.5% for 1951, 1962 and 1963 respectively. The fathers non-manual proportions would be 26.6%, 25.6% and 29.5% (although this latter comparison is only approximate - see Ridge and Macdonald, 1972, 142 and 146-7). These figures are closer to a consistent pattern and the three 'retained' time points all clearly show the excess of non-manual sons over non-manual fathers. Thus whereas Ridge and Macdonald hesitate to discard the

1949 table for want of criteria the present author would suggest that the evidence of this chapter provides sufficient grounds for the elimination of the LSE data to be made.

Graeme Ford has identified further parallel peculiarities encountered by both Keith Hope and John Ridge in their attempts to the Glass data. In his paper 'Trends in the openness of British Society in the Present Century' (1975) Hope explores changes in mobility by comparing the overlapping parts of the 1949 study and the 1972 Nuffield study. Even allowing for problems of replication, two results do not match. Firstly, the marginals are different, with the relevant part of the 1972 sample being much closer to the 1951 Census figures (Hope, 1975, Pt. II, Table 1). Secondly, the association between fathers and sons is weaker in the later survey: the product moment correlations being 0.47 in 1949 but 0.36 in the Oxford inquiry, a difference not explained just by the change in marginals. Hope concludes that to bring the two mobility tables into line would require a reduction in self-recruitment in all categories in the Glass Study.

Hope goes on to explore possible reasons for the lack of fit, perhaps reflecting what was argued at the start of this chapter, that nobody wishes to doubt the credibility of Glass's study. He therefore examines differential effects of mortality and migration, and with reference to the Oxford sample, inaccurate recall, incorrect Hall-Jones coding, and poor interviewing. However, none of these, even had they been found to be applicable, explains why self-recruitment should be higher in 1949, or why the marginals should be different. Despite his apparent wish to retain the Glass evidence, Hope concludes that

'the two studies remain stubbornly divergent ... it seems reasonable to place greater reliance on the results of the later enquiry rather than on those of the earlier study' (Hope, 1975, 38, 49)⁽¹⁸⁾

(18) A fuller account of Hope and Ridge's attempt to make sense of the discrepancies can be found in Payne and Ford (1977a).

The second source of discrepancies in the Glass data which Graeme Ford has identified is in the work of John Ridge (1974a). Ridge re-examines the correlations between the respondent, several brothers, and his father, and reports a number of unlikely outcomes. For example, instead of inter-sibling correlations being more or less equal, the 'between brother' value is higher than between the respondent and his brothers, while the respondent/father correlation is substantially higher than that between brothers and father.

Ridge explores various possible explanations such as sampling error, fallible memory, sample attenuation, and data processing error, without providing a satisfactory answer. He does however raise two speculations which deserve further consideration. The first is, quite simply, that respondents do not tell the truth. They downgrade their brothers out of 'sibling rivalry' and upgrade their fathers to their own achieved class position, as a result of neurotic status consciousness. This so undermines the whole enterprise of social mobility research as to be almost unthinkable! Happily, there are stronger grounds for refusing to countenance this possibility. If it were true, the excess of non-manual fathers in Glass (due to 'upgrading') would also appear in other mobility studies: as we have seen, there is no sign of this.

We could probably construct an explanation based on systematic distortion on the part of the respondents along the lines indicated above; the problem here is that it stands or falls on the imputation of complex motive and behaviour patterns which however superficially plausible, are unamenable to evidence. Furthermore, even if we are happy to take this course, we are left with one major question: exactly what was it about the Glass study that led to the respondents' falsifications, where other studies seem to show less evidence of such peculiarities?

The second problem which Ridge highlights is the actual recording and coding of the occupational data. The occupational information on

brothers (and fathers) was collected in less detail than that for the respondent. In addition, as Macdonald (1974) and Hope and Goldthorpe (1974) have pointed out, the directions given to coders for applying the Hall-Jones scale were not comprehensive:

'the instructions followed in coding occupations into the Hall-Jones scale on the first occasion of its use (Glass, 1954) have never been published...Certainly it cannot be assumed, given the inadequate guidance under which coders must have worked, that highly comparable classifications of occupations have been produced.' (Hope and Goldthorpe, 1974, 7-8).

It is possible that the coding of the fathers' and brothers' occupations was less successful than for the respondent. This would not, however, explain why fathers were 'upgraded' and brothers 'down-graded', unless there was some additional factor which applied differentially to the fathers and brothers.⁽¹⁹⁾ Coding error may lie at the back of the problem, but there is very little hard evidence to go on, and even so, there seems to be no parsimonious explanation for all of the various discrepancies that have been encountered.

(19) There is one speculation arising from personal correspondence and informal conversations which might fit the bill - but it must be stressed that it is highly speculative. In the Glass questionnaire, it is said that the father's and son's main jobs were on the same page. If the father's job was insufficiently detailed, it is possible that the easy availability of the more detailed son's job might have influenced the coding decision on the father. A coder unconsciously believing that there was little social mobility might have been guided to allocate the father into the same category as the son. For example, if a father was an 'engineer', and the son a factory manager, the father might be located as a professional engineer rather than a skilled manual worker (as the discussion of mobility in the industrial sector below shows, this could be no small factor). The net effect would be to make fathers occupationally like their sons, increasing the former's proportions of non-manual posts, reducing apparent mobility and increasing self-recruitment - which fits neatly with the objections raised so far in this chapter, except for Ridge's finding that the brothers have been 'down-graded'. As the brothers' jobs were recorded on a separate page of the questionnaire, perhaps there was less contamination, although this seems a weak explanation.

Concluding Remarks on Glass

This chapter has not succeeded in locating a satisfactory answer of why the 1949 study produced dubious findings. However, it is the present author's contention that serious doubts have been raised about the results, most notably with respect to the fathers' occupational distribution and therefore by implication with respect to the flows of mobility reported⁽²⁰⁾. This was the central purpose of the chapter. As indicated at the start of this chapter, and as we shall see below, many sociologists have built models of the class structure on Glass's evidence, so that the critique of his work has far-reaching implications.

It might be, nonetheless, that the reader rejects the doubts outlined in the previous pages. If so, there is still good reason to make one hesitate to draw too heavily on Social Mobility in Britain in anything other than a historical capacity: the Glass data refer to a very much earlier period, compared with the American or latest British studies.

Towards the upper limits, for the older respondents 1949, Glass was dealing with people whose birth year was in the early 1880s and whose fathers' birth year came in the mid-1840s (taking Glass's estimate of father's mid-child birth at age 34 (Glass, 1954, 191). Such a father would reach the equivalent of retirement age in 1910, still in the era of horse-drawn transport and well before the start of the First World War. His son could easily have worked for over 20 years before the First War, and would be reaching retirement age during World War II. Of course, at the other end of the age scale, the 20 year-old born to a 34 year-old father had worked only since the

(20) It should be emphasised that the criticisms are limited to the mobility findings per se, and not taken as applying generally through the book, a point made by Jean Floud.

end of that war, but his father's work experience would nevertheless start before the previous war - 1909: with successively older respondents, the father's work experience (particularly his entry into the labour force) becomes increasingly characterised by the inter-war years, and the 19th Century. It follows that the mobility Glass reports is strongly bound up in occupational and social processes that had little direct relevance in 1949. Over two-thirds of Glass's sample have their mobility defined by the occupations of fathers who reached retirement age before the end of the Second War.

Thus the problem with Social Mobility in Britain can be seen as a much simpler and more obvious one. The research dates from 1949; we are now in the 1980s. Even in the peculiarly non-empirical traditions of British Sociology, normal practice would make sociologists hesitant in attributing to the social conditions of the 1960s, 1970s and 1980s the results of surveys carried out only 4 years after the end of the last war. But all mobility studies are by nature retrospective and historical, and the LSE study is now more historical than most. It follows that there can be very little justification in uncritically regarding the present mobility processes of Britain (or 'advanced industrial society') as being those reported by Glass, something which certainly was the practice until very recently.

Nonetheless it would be ungenerous in the extreme to finish this chapter without paying tribute to David Glass. Despite all of the criticisms outlined above, his contribution to the field of social mobility as an original thinker and as a stimulus to other scholars was nothing short of monumental. And at a much lower and personal level, he was helpful and courteous in the extreme to the present author when the early work for this chapter was being carried out. It is only possible to operate in the field of social mobility at its current level because of the groundwork which he did.

In the remainder of this study, there is little direct building on Social Mobility in Britain. On the contrary, much of the inspiration comes from rejecting much of that work. Nonetheless, the workings of this dialectic should not obscure the seminal character and the high esteem in which David Glass's work is held by the author.

CHAPTER SEVEN

Mobility and Class among Scottish Males

The rejection of Glass's findings presents us with two problems. First, if what we thought to be true is in fact in error, what are the present rates of mobility? To some extent, the answer to that question has already come from the Nuffield Study, but of course not for Scotland. The second problem, which Goldthorpe has also addressed, is one of reconceptualising some of the middle range theories of the British class structure. Again, the Nuffield study's answers to this problem are less than complete, both for technical reasons such as the class schema used - and for conceptual reasons - such as the heavy dependence on a three-class model of Goldthorpe's own. (1)

Although in principle it would be possible to take the Nuffield study as a model for the analysis of the Scottish data, this is not the approach which has been chosen, nor is the analysis primarily geared to a comparison with England and Wales. Part of the reasoning behind these decisions is methodological, not least a concern with the Hope-Goldthorpe scale in its collapsed form. The details of these doubts are presented in Appendix I (see below) but the heart of the issue lies in the construction of the original scale and in the way in which the structure of the 124 point scale can be retained in reducing these categories to 7 broad groupings. The

(1) To be more precise, Goldthorpe (1980) is working with a model consisting of a service class, a manual working class, and a residual set of strata which lies between the two.

groupings used to analyse the Scottish study are different from those used by the Nuffield team: the advantages lie in a 'tidier' set of categories, more evenly-sized, with less over-lap of Hope-Goldthorpe scale values, and based on a much simpler set of assumptions about how the values were originally derived. However, the emphasis on the importance of 'employment status' - manager, foreman, employee, etc - in constructing a Scottish class schema is in effect both a technical and a theoretical concern. The occupational classes used are set squarely in Lockwood's conception of work and market situation even if for pragmatic reasons groups have to be aggregated with others having slightly different situations.

This in turn is part of a wish to develop an independent approach to mobility, based on occupations. To have set out to compare England and Wales with Scotland would have entailed responding to a model that for theoretical reasons the author finds not entirely satisfactory. For example much of Goldthorpe's writing involves statements about mobility which exclude the intermediate strata (because he himself feels their position is ambiguous in the way he has defined them (Goldthorpe, 1980, 41-2)), while his notion of a service class, whatever its merits, involves combining a very wide range of occupations, and scale values. (2) A comparative exercise is obviously worthwhile, but must take second place to the prime task of developing an explanation for mobility, and a clear picture of Scottish mobility in its own right. A comparison would call for using one model and one classification, and neither study has yet been analysed using the other study's class schema. An additional advantage of separate analysis is that both the general evidence about mobility and the critique of theories of the class

(2) In any scale it is easy to discover anomalies, so that the value of documenting examples is limited. Suffice to say that combining professionals and senior management of, say ICI or Shell, with window dressers, police sergeants, T.V. actors and lab. technicians seems to the author to create a heterogeneous class, particularly when the scale values derived from the views of a random sample of respondents range from 82.05 to 48.15 i.e. the one class covers 55% of the entire scale range, with considerable overlaps of values with other classes. Other criticisms of the class schema can be found in Penn (1981): see also Goldthorpe's reply (1981)

structure are not then dependent on a single analytical framework. (3)

However, although we are interested in developing an occupational perspective on mobility, the starting point is the same as for a more conventional social or class mobility approach, namely the mobility table and rates of flows. The major questions to be considered are how much mobility, between which origins and destinations, in which directions, has the labour force experienced? What do these flows tell us about structured inequalities and about the membership of the occupational groups that are generally taken to be the building blocks of social class? And finally, what do these results mean for existing theories of class structure?

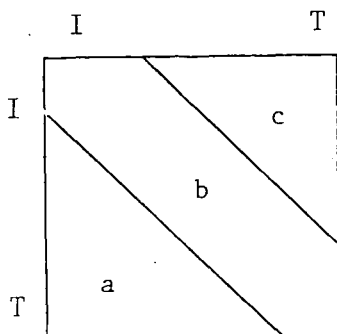
Intergenerational Mobility Among Scottish Men

The data discussed in the following sections follow the convention of dealing with male mobility between the respondent's job at the time of interview, and his father's job when the respondent was 14 years old⁽⁴⁾. In cases of unemployment, or where the father had been called up into the wartime armed services, the last civilian job was taken instead. Respondents were asked 'What is your job now?' as one of a series of occupation questions, all of which required a job title, a job description, ('What exactly do you do as a?') an industry, and an employment status. The question concerning the father, or Head of Household where there was no father living with family, was 'And what was your 'father's ' job at that time? I mean what exactly did 'he' do?'⁽⁵⁾. No distinction has been made between those giving a 'last civilian job' or having non-father heads of households in preparing Table 7.1 (or the other tables which follow).

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- (3) It will still be possible to make a few points of comparison. The reader may wish to consider whether, following the author's reasoning that Scottish Mobility is the outcome of Scotland's economic history and position, English regions like the North East with similar histories would be more akin to Scotland than, say, London and the South-East.
- (4) Female mobility is considered in Payne et al (1983a).
- (5) See Q.28a and 12a, respectively, in the questionnaire reprinted in the appendices. Appendix II gives details of the methodology, sample size, response rates etc.

Table 7.1: Intergenerational Male Mobility

		Respondent's occupation at time of interview							Totals
		I	II	III	IV	V	VI	VII	
Father's Occupation when Respondent Aged 14	I. Professionals; Managers; Senior Administrators;	128	71	18	29	14	14	12	286
		2.8	1.5	0.4	0.6	0.3	0.3	0.3	6.2
	II. Semi-Professionals; White Collar Supervisors;	108	193	62	45	54	72	35	569
		2.3	4.2	1.3	1.0	1.2	1.5	0.8	12.2
	III. Foremen; self-employed artisans	76	95	121	26	91	110	75	594
		1.6	2.0	2.6	0.6	2.0	2.4	1.6	12.8
	IV. Routine White Collar	41	35	16	15	21	14	11	153
		0.9	0.8	0.3	0.3	0.5	0.3	0.2	3.3
V. Skilled Manual	91	128	172	63	400	265	217	1336	
	2.0	2.8	3.7	1.4	8.6	5.7	4.7	28.7	
VI. Semi-Skilled Manual	51	92	131	47	193	257	152	923	
	1.1	2.0	2.8	1.0	4.2	5.5	3.3	19.9	
VII. Unskilled Manual	55	75	124	42	166	167	158	787	
	1.2	1.6	2.7	0.9	3.6	3.6	3.4	16.9	
TOTALS	550	689	644	267	939	899	660	4648	
	11.8	14.8	13.9	5.7	20.2	19.3	14.2	100	



a = upwardly mobile = 42.3%
 b = immobile = 27.4%
 c = downwardly mobile = 30.3%

The first feature to observe about this table is the difference between the marginal distribution of the fathers (the row totals given on the right of the table) and those for the sons (the column totals forming the bottom line). As already argued in the previous chapter, these do not reflect occupational transition alone, but they do indicate considerable structural shift between the two 'generations'. All three of the manual categories (V, VI and VII) have higher numbers for fathers: 1336 as against 939; 923 as against 899; and 787 as against 660. Conversely, the 'non-manual' categories (6) are all larger in the sons' generation. In total the shift is an expansion of the non-manual sector of 548 - or alternatively a contraction of 548 in the manual sector: about 12% of the total sample. The largest expansion lies in category I, (264) the professional/managerial group; the largest contraction (397) is in category V the skilled manual class. This is presented diagrammatically in Fig 7.1

Fig 7.1: Distribution of Origins and Destination to Scale

		Respondents Occupations						
		Non-manual				Manual		
		I	II	III	IV	V	VI	VII
Non-manual	I							
	II							
	III							
	IV							
Manual	V							
	VI							
	VII							

(6) The term 'non-manual' is used for convenience. Strictly speaking, the category includes self-employed artisans and some technicians who by virtue of either not being employees or having very high levels of skill, plus having higher Hope-Goldthorpe scale scores, are not classified with the manual group.

If we total the cells below, on, and above the main diagonal from top left to bottom right, Table 7.1 shows that 42.3% of the sample were upwardly mobile by at least one category, 27.4% were immobile, and 30.3% were downwardly mobile. (7) In other words, on the basis of these gross mobility rates, about 3 in every 4 men experience some kind of disjunction between their family background and their own occupational identity (forgetting for the moment any additional respondents whose earlier career took them away from their origins before they returned to the same category at the time of interview). This we regard as a relatively fluid condition.

Of course, had we used a smaller number of categories, such as 'manual' and 'non-manual', the appearance of the results would be different. In this case, 23% of the sample were upwardly mobile, 65.7% were immobile and 11.3% were downwardly mobile. We might hesitate to call this 'fluid', but this still shows 1 in 3 men being mobile. Conversely, if we were to operate exclusively with the 20 categories which was used for parts of the analysis, the upward mobility figure would be 51% and the downward 34%. Thus the selection of a seven-category model of the occupational order directly influences both the detail of the findings and also the way the reader interprets the level of mobility.

Part of this mobility can be attributed in a direct way to the changes in the occupational distributions between the two generations. While it is not possible to make a direct equivalence between the SEGs discussed in the previous chapter and the sample data, (8) it is possible to establish that the bulk of SEGs 1 to 4 lie in class I; SEGs 5, 13 and 14 in class II;

(7) It might be more informative to split the 'immobiles' into those who retained some kind of advantage by remaining immobile in the non-manual class, and those who retained some kind of disadvantage by remaining in the manual class. This yields the figures of 9.8% and 17.5% respectively.

(8) For reasons of age and date of survey, as much as definitions.

SEGs 8 and 12 in Class III, SEG 6 in Class IV; SEG 9 in Class V; 7, 10 and 15 in VI; and II in VII. On the basis of what one knows about changes in the size of the SEGs, one would therefore look for upward mobility fuelled by expansion particularly in Classes I, II and IV (although less so here than if women were being considered), but little upward mobility in Class V which should reflect the decline in skilled manual work, or in the fluctuating classes VI and VII. To allow for the different sizes of these classes, the share of overall upward mobility to be found in each class is compared with its size in the sample. In this way, the components of mobility can be allocated to the relevant class. This is shown in Table 7.2, which also includes immobility and downward mobility.

Table 7.2: Proportions of Mobility Associated with Classes

	<u>Expanding Occupations</u>				<u>Contracting Occupations</u>			Totals
	1	2	3	4	5	6	7	
% of all Upmobility	21.4	21.6	22.5	7.7	18.2	8.5	n.a	100(1968)
% of all Immobility	10.1	15.7	9.5	1.2	31.5	20.2	12.4	100(1272)
% of all Downmobility	n.a.	5.0	5.7	7.1	12.8	33.7	35.7	100(1408)
% of sample	11.8	14.8	13.9	5.7	20.2	19.3	14.2	100(4648)

Two-thirds of the upward mobility is concentrated in the three upper classes which consist of just over one third of the sample. No other class has substantially more mobility than its 'proportional share'; contracting classes have less upward mobility than their proportional share. None of the classes except V deviates much from its proportional 'share' when it comes to immobility. Classes II and III have a relatively low share of downward mobility, whereas classes IV, VI and particularly VII are sites for disproportionately high levels of downward mobility; some kind of 'ceiling' and 'floor' effect may be present in these numbers. Even so, in considering the mobility characteristics of the various occupational groups, Table 7.2 helps to identify that the profiles are quite distinct, and generally compatible with an explanation that draws on

occupational transition (9).

However, one would not expect these data to show exact correspondence between occupational size and mobility because the 'occupational' approach is not one that deals only in changes in size. It also includes ideas about other facets of occupational change, such as changing standards of recruitment, or shortages of labour supply, or unemployment. The changing occupational distributions are the framework within which these 'rules' and others less directly to do with labour, like access to schooling, operate. Occupational transition is neither a simple, nor a monocausal, explanation of mobility.

Both Tables 7.1 and 7.2 present a picture of considerable readjustment of employment level over two generations, with a consequent mixing of people with different backgrounds, and a need for them to learn new mores (although this is not to say Scotland is an 'open' or egalitarian society). What it does show is that direct inheritance of occupation is relatively rare, even at this level of general categories. Exceptions do occur: for example farming and small businesses are heavily recruited from among the ranks of farmers and 'small businessmen', presumably because they involve property inheritance. But the general rule is to the contrary, so that there must therefore be important mechanisms for allocating sons to their occupational destinations over and above parental intervention to maintain status stability.

To some extent, in that it has become 'normal' not to follow in one's father's footsteps, occupational inheritance ceases to be problematic. Nevertheless, if sons are relatively free agents who can decide their own occupational destinies, the data still show that constraints operate on job choice, so that the net effect of these choices is to allocate more non-manual jobs to non-manual sons than to manual sons.

(9) Log-linear analyses of the SMS data using various combinations of classes and cohorts by Anderson (1976) and Ulas (1984) show similar results to those of Hauser et al (1975a, 1975b), namely that once structural change has been accounted for, a satisfactory model can be fitted without requiring a term to allow for changes in mobility rates.

This can be seen by adapting Table 7.1 to show inflow mobility, that is to say, the proportions of each class recruited from various origins.

Table 7.3: Inflow Analysis of Intergenerational Mobility

		<u>Respondents' occupation at time of interview</u>							
		I	II	III	IV	V	IV	VII	Totals
Father's Occupation	I	23.3	10.3	2.8	10.9	1.4	1.6	1.8	6.2
	II	19.6	28.0	9.6	16.9	5.8	8.0	5.3	12.2
	III	13.8	13.8	18.8	9.7	9.7	12.2	11.4	12.8
	IV	7.5	5.1	2.5	5.6	2.2	1.6	1.7	3.3
	V	16.5	18.6	26.7	23.6	42.6	29.5	32.9	28.7
	VI	9.3	13.4	20.3	17.6	20.6	28.6	23.0	19.9
	VII	10.0	10.9	19.3	15.7	17.7	18.6	23.9	16.9
Totals	100	100	100	100	100	100	100	100	
	(550)	(689)	(644)	(267)	(939)	(899)	(660)	(4648)	

Whereas the previous table gave the percentages of total mobility to be found in each category, Table 7.3 shows from where the present members of each class have come. Thus clearly Class I is not a closed category. Three out of every four of its members have come from other origins, one in three from manual backgrounds, and each of the manual categories contributes about 10% or more. It is true that its largest source of recruitment is from itself, followed by the adjacent Class II. But this is a totally different picture than one gets from Glass's work. There one finds that apparently only one in ten of the upper middle class have manual working class origins, and half are self-recruited (Glass, 1954, 183). This is one of the more significant findings, because it shows that 'long range' mobility, from low in the hierarchy of backgrounds to a much higher ranked occupation, is not only possible but does indeed happen. This is a point to be returned to in the later discussion

of existing assumptions about the British class structure.

In contrast, while Class II (consisting mainly of semi-professionals and technical workers with high levels of skills, plus managers of small enterprises) also recruits from a wide range of origins, it shows the highest degree of self-recruitment of any non-manual class. This is due in part to the component categories (not shown in Table 7.3) which include farmers and small businessmen, the two occupational groups with exceptionally high self-recruitment - presumably due to the key role of property inheritance.

Among present-day farmers, 56 out of 84 (67%) were born the sons of farming fathers, while 41 out of 146 (32%) small proprietors came from a small business background. Among the semi-professionals and technical workers who make up the rest of the class the self-recruitment figure is only 5.2%. A similar discontinuity occurs in the marginal distributions: the two property-based occupational groups contain 480 niches for fathers and 230 for sons, whereas the semi-professionals increase from 189 to 459. This tends to confirm the two conclusions already drawn: first, expanding occupations not only provide routes for upward mobility, but recruit from a wide range of origins, while conversely contracting occupations - and here those with a petty capital basis in particular - are more likely to be self-recruiting. It is as if on a contracting market, either a disproportionate number of sons of that class 'apply' for the jobs, or they are in some way specially favoured.

The four occupational groups which comprise Class II may seem unlikely bed-fellows for a single occupational category. What they share is their desirability scores on the Hope-Goldthorpe scale. It is important to emphasise this point from time to time, because classifications tend to take on a reality of their own after a while. The inclusion owners of petty capital in class II are one of two major exceptions to the basic application of work and market situation in the construction of the class schema.

In contrast, both classes III and IV are relatively homogeneous. The former consists of foremen and self-employed artisans, i.e., those work-roles which represent 'realistic' career ambitions for at least some of those who start work as (chiefly skilled) manual workers. 'To be your own boss' will in practice mean being a one-man band for most such workers, while a shop-floor supervisory position is about as high in the ranks of management as most workers could expect to rise in their own life times. Not surprising therefore, class III in some ways resembles the skilled manual class (V) more than classes II or IV (semi-professionals and routine white collar). Two thirds of its number are from manual origins; its self-recruitment is low - presumably because the advantages that parental career achievements confer are not readily convertible into career advancement for the sons - and few class I sons arrive in this kind of work. This seems to be a good example of genuine occupational mobility, in which the mobility table reflects exactly what would be expected both from common sense observation and from a more developed argument about the occupational basis of social mobility. The finding in Table 7.3 of a high proportion of mobility focussed on this class can be explained, not by class expansion, but by structural connection of career significance to the manual worker, and of no little significance for the way capitalist production is able to mobilise parts of the labour force to bring its technical expertise into play on behalf of a less expert (in this context) management. In the same way, the system offers a space for the one-man operation in the interstices between large scale production, which can occasionally allow a individual to graduate from being a manual worker to being a proprietor of some significance. It seems likely, however, that such a development may be more important to capitalism as a pacifying and legitimizing myth for the working class than as a new source of entrepreneurial dynamism.

Class IV, routine white collar work, is here the smallest (because many such workers are female) and has a recruitment pattern more in line with the non-manual sector than the manual. It recruits less than its 'share' from

manual backgrounds, i.e. on the expectations of no association, and more from the non-manual. However, it has an unusually low rate of self-recruitment. This is only 5.6% (the next lowest is class III with 18.8%) and its recruitment from all classes is very close to the appropriate proportions. This ties in with Stewart et al's findings discussed above.

In contrast to the routine white collar category, skilled manual workers are both the largest class and the most self-recruited. This is a contracting class, like farming and small businesses; 1336 sons came from skilled manual families, but there were only 939 niches for them. As we shall shortly see more clearly from Table 7.4, the 'natural' connection with class III accounts for 172 of them, while 42.6% of the present skilled workers are self-recruited. This may reflect an ability to pass on limited occupational advantage (vis a vis the rest of the manual labourforce) to the next generation, by means of manipulating the apprenticeship scheme. It is not conventional to conceive of this kind of self-recruitment as self-interested closure - in the way that elite recruitment is normally treated. Nonetheless the basic principle would seem to be operating at a secondary level lower down the scale. No evidence is presently available, however, to substantiate this.

What is evident is that class V is substantially the largest in both generations and other things being equal, would be expected to have prominent interactions with all other classes as a source of their recruits. Interestingly the converse does not hold true. Table 7.3 shows that less than 2% of the skilled category come from class I (a pattern shared with the other two manual classes). In all, about four out of every five skilled workers comes from a manual background; again, a pattern common to all manual classes.

The semi-skilled, and the unskilled, manual classes resemble each other, and indeed the decisions to call one job semi-skilled rather than unskilled was sometimes hard to justify. The main difference in inflow is that each recruits more heavily from among its own sons than from the other. Both are

also contracting sectors, although the contraction of the semi-skilled category is somewhat less marked. Neither recruit as much as 2% from class I, and only around one in five of their numbers come from non-manual backgrounds.

The central point about Tables 7.2 and 7.3 is that they show a high level of movement, a much higher level than one would expect from most sociological writing in Britain. Within the system of occupational stratification, there is considerable individual mobility. If we regard mobility as one index of the rigidity of that system, then it is necessary to modify our conception of class in Britain (or strictly speaking, Scotland). Even at the most modest level of the manual/non-manual transition, more than one in every three male adults personally experienced occupational mobility. That is to say, he has been a member of two different classes. If we conceive of the stratified order as consisting of smaller units such as the seven categories that we have used above, then nearly three in every four adult males has moved across group boundaries. It does not seem plausible to regard this as a rigid system, except in so far as one concentrates strictly on the perpetuation of a system.

However, the dichotomy between the properties of a system, and the characteristics of the elements contained within that system is not so neat as is sometimes assumed. Of course it matters that social inequality exists, and continues to exist over successive generations. But it is at one level also a property of that system of inequality that individuals and families experience different parts of that system. Inequality is easier to bear when either one's own life, or one's children's (or parents') lives have involved other social circumstances. The reality of familial experience of occupational mobility goes some way to explain away the problematic of why social inequality continues to exist. And that familial experience is a property of the system,

as much as a characteristic of the actors caught up within it. On this evidence, the general rigidity of the British class system is not as great as has been suggested: a later question for this research is to locate where rigidity is still established.

The second general point to be made on the basis of tables 7.2 and 7.3 concerns class formation and the generation of class consciousness. Occupational mobility tends to result in people experiencing different life-styles: one in their families of origin and one - or more - in their own adult careers. Let us make the not unreasonable assumption that early experience does have an effect on later life, in the sense of contributing to ideas and values, providing a frame of reference for evaluating 'progress' in one's own life, influencing social relationships (eg, with parents and others from neighbourhoods of origin and so on). In other words, childhood socialisation 'sticks', despite the overlay of more recent events such as re-socialisation into new occupations or grades as part of promotion within an organisation (Watson, 1964; Nichols, 1969; Offe, 1977). It may be that an intergenerational shift between two adjacent categories of the seven-category scheme is unimportant in this context, but a move from one end of the scale to the other clearly is. What tables 7.2 and 7.3 (and to a lesser extent, table 7.4 below) show us is that the backgrounds in question are for the present middle class very variable, and therefore any notions of social homogeneity and shared values which draw on what is brought to the current class situation from family of origin, might be suspect. It is not possible to entertain ideas of a non-manual class developing as a class 'for itself' when its collective experience is restricted to much less than a single life-time. With heavy recruitment from the manual sector, the non-manual class may wish to stress its difference from and superiority over manual workers - but that is a far more dynamic and at the same time constrained situation, than one in which successive generations of a class are overwhelmingly self-recruited.

However, this situation is less true for the working class. Although there is some downward mobility, the main pattern is that manual workers are the sons of the previous generation of manual workers. There is considerable interchange between the levels of manual work (skilled/semi-skilled/unskilled) both between generations (and as we shall see, within careers) and this may provide some kind of heterogeneity of life experience in the way that we have seen for the middle class. It certainly is not provided by the inflow of sons from above, and manual workers have more basis for a common identity and consciousness than do non-manual workers.

The continuity of working class membership is also well illustrated by the patterns of outflow from manual class origins. The discussion so far has concentrated on absolute and inflow measures of mobility, which reflects a concern with one strand of the problem namely what are the implications of mobility for the present structure of the classes. The emphasis on inflow shows up most clearly that heterogeneity of origins is far more prevalent than was expected, and that there is greater fluidity in the system. But while this is important - and perhaps one of the main contributions of the present study is to demonstrate these basic facts - it would not do to ignore that other strand of British mobility writing, the differential access to desirable jobs. To put it more strongly, a sense of moral outrage informs much of the writing on mobility and stratification, and while the inflows may show considerable movement, they show much less about those who are not so successful in the mobility competition. For this, we need to turn to the outflow table shown below as table 7.4. (Table 7.4 follows on next page.)

Table 7.4: Intergenerational Outflow Mobility

	Respondents' occupation at time of interview							Totals
	I	II	III	IV	V	VI	VII	
I	44.8	24.8	6.3	10.1	4.9	4.9	4.2	100 (286)
II	19.0	33.9	10.9	7.9	9.5	12.7	6.2	100 (569)
III	12.8	16.0	20.4	4.4	15.3	18.5	12.6	100 (594)
IV	26.8	22.9	10.5	9.8	13.7	9.2	7.2	100 (153)
V	6.8	9.6	12.9	4.7	29.9	19.8	16.2	100 (1336)
VI	5.5	10.0	14.2	5.1	20.9	27.8	16.5	100 (923)
VII	7.0	9.5	15.8	5.3	21.1	21.2	20.1	100 (787)
Totals	11.8	14.8	13.9	5.7	20.2	19.3	14.2	4648

Outflow analysis can be misleading because the flow percentages are more obviously constrained by the size of the destination categories. Thus for example, the small values in the class IV column say more about the fact that there are only 5.7% of all occupations in that category, rather than any process of connection between white collar work and other origins. It is not proposed to explore this table in the same detail as table 7.3 but certain features do stand out.

Despite the earlier emphasis placed on movements between occupations the children of both the higher classes - and particularly class 1 - have a much

better chance of good jobs than other children. Only about 14% of the sons of managers and professionals and 28.4% of the sons of semi-professionals ended up in manual work. In contrast, roughly 65% of manual workers' sons became manual workers, i.e., in absolute terms they were four times more likely, and man for man twice as likely, to be manual workers than the sons of professionals. Nearly half of those born into class I held their position and another quarter ended up in the adjacent class II. Less than one in every fourteen sons of manual workers made it to the upper middle class.

This comparison of chances shows the advantage which birth brings. The Fabian and radical themes discussed in earlier chapters pointed to the importance of any deviation from equality of opportunity. However, the basic structure of occupational opportunity must not be neglected: the immobility of many of the sons of manual workers can be seen as being that part of the outcome which would be expected if there was no parental advantage involved. Thus if, say, skilled work is about 20% of employment then about 20% of the sons of each class would be in skilled manual work - including the sons of skilled manual workers. In fact, the latter's proportion is about 30%, an 'overload' of 10%. But the flow from both semi- and un-skilled manual origins into skilled work is 'about right', while those from the non-manual classes are low. Given the earlier observations about self-recruitment in contracting classes like skilled manual work, it is interesting to speculate whether these patterns represent some kind of excessive self-recruitment or the outcome of a blockage preventing a distinct proportion of able-skilled manual workers' sons from entering the non-manual class.

This kind of analysis, which obviously draws on Glass's idea of perfect mobility and the index of association, tends to reduce much of the apparent disadvantage of lower class sons in the competition for better jobs. Nevertheless that disadvantage is real and enduring in the 1970s. It is still true that even in its 'reduced form', there is a class differential. And whatever the shape

of the class structure, one must not lose sight of the fact that a chance of one in fourteen of getting a good job is singularly poor odds, when the rewards attaching to good jobs are so much better (to name but one example, the mean class I gross annual earnings in September 1975 were £4,236 compared to class VII's £2,529: something like £10,000 and £7,000 respectively at the levels of the early 1980's).

This point is made here because the choice of measure employed does modify the picture presented. In this chapter, and particularly in the next section, the emphasis has been placed on inflow and absolute measures which reveal the fluidity of the occupational structure and are useful in understanding the present composition of classes and the question of class formation. An alternative can be found in Goldthorpe (1980) where greater weight is given to outflow analysis and relative measures, presumably because Goldthorpe retains a strong, traditional interest in the inherent inequality of life under capitalism⁽¹⁰⁾. He makes great play of the point that while occupational transition helps to move more sons of manual workers into non-manual jobs, their chances of such moves compared with the chances of the sons of non-manual workers do not vary much over time. While this is an interesting paradox, there is something slightly perverse in Goldthorpe's making so much of it in his discussion of fluidity. Noble has recently argued in this connection that people do not experience relative chances as measured by odds-ratios: on the contrary:

'Individuals of course experience mobility or the lack of it the degree of inequality which persists could be more easily discerned in the growing homogeneity of recruitment to professional and managerial jobs which a simple inflow analysis ... would reveal' (Noble, 1981, 137-8).

The calculation of odd-ratios only obscures the changes in absolute rates because, as Noble shows (*ibid*), the odds-ratio is a somewhat insensitive instrument. While odds-ratios have their uses as part of log-linear modelling

(10) Goldthorpe also redefines upward mobility as moves into his classes I and II, which is a radical departure from normal measures: see Goldthorpe (1980, 42).

techniques, when it comes to the consequences of mobility, in Erikson's words
the

'heterogeneity of social classes, the number of people with experience of social mobility, the career expectations of youth, the degree of total mobility will be of greater importance than the rate of exchange mobility' (Erikson, 1975, quoted in Noble, 1975, 19).

We might equally say the same about the consequences of occupational mobility, and it is for that reason that no effort has been made to distinguish between 'structural' and 'exchange' mobilities in the present chapter.

The evidence of absolute and inflow mobility rates, even when balanced against the outflow measures, suggest a basic pattern quite different from those normally attributed to Glass, namely that movements over long distances are rare, and that the level of movement is relatively limited. The rejection of these statements is important, because in addition to the general points about rigidity and class formation, there are a number of specific models of stratification based on these assumptions about occupational mobility. The three main models are those of a mobility barrier, or threshold, between manual and non-manual occupations; that the intermediate range of occupations act as a 'buffer zone' between the middle class proper and the working class, which takes two generations to cross, and that the upper reaches of the occupational hierarchy are increasingly closed to entry from below, until the highest echelon is almost completely self-recruiting. Each of these models is considered in turn in the next section.

Models of Mobility and the Class Structure

The simplest of these models proposes the existence of a mobility 'threshold' at the manual/non-manual boundary. Westergaard and Resler - who ironically have done much to restore social mobility to the centre of the stratification debate by the attention they give it in Class in a Capitalist Society - claim that there is a

'persistence of some mobility threshold along the line dividing manual from non-manual labour, even if it is lower than before That line in fact has something of the character of a barrier against mobility' (Westergaard and Resler, 1975, 302, 301).

In the first place, as has already been shown, about one third of the sample moved across that line in one direction or the other. This does not seem like a serious mobility hurdle. Second, within each of the four non-manual classes, there is considerable recruitment from the other side of the threshold: 35.8%, 42.9%, 66.3% and 56.9% respectively. The reverse is less clear-cut: the three manual classes recruit 19.2%, 23.4% and 20.2% from the non-manual sector, about one in every five.

Third, if the manual/non-manual line is to be regarded as a key hurdle, it should presumably be a more formidable obstacle than exists elsewhere in the occupational structure, i.e. the mobility flow across it should be lower than between any other two points in the mobility table. So for example, it should be harder to move from manual to non-manual, than from 'semi- and unskilled' into 'skilled and non-manual' occupations. But whereas the former has a mobility flow of 34.3%, the latter is only 38.7% and again the flow between the sector comprising classes I, II and III, and that comprising IV, V, VI and VII, is 34.2%. In other words, moving the threshold up or down one category does not seriously change the mobility flow.

The logical extension of this critique is to re-dichotomise the seven category classification at each of its six possible points. In such an exercise the closer one moves to the top or the bottom of the classification, the smaller becomes the number of cases which could in theory be mobile: for instance the maximum mobility value for class I is achieved if all sons born in class I (286) enter other classes, while all the present class I occupations (550) are exclusively filled by sons from those other classes. The maximum value in each cell is of course dependent on the marginals. It follows from this consideration that at the supposed threshold between manual and non-manual sectors, those who are mobile make up a smaller

proportion of all those theoretically at risk of being mobile partly because the number of people theoretically at risk is higher in the middle of the table.

We can extend this analysis by using the outflow rates in Table 7.4. Each of the three manual classes exports more than one-third of its sons into non-manual occupations, which is less than would be expected on a no-association assumption (when one would look for nearer half of such sons to be in non-manual work), but still is a considerable flow. The counter flow is slightly smaller for classes II and IV, bigger for class III, and only about one in seven from class I. If the supposed threshold were drawn one class lower, the outflows from semi- and unskilled manual backgrounds would be substantially increased, so that nearly 60% of their sons crossed the barrier. If the threshold were drawn one class higher, the flows would be slightly reduced, by about 5% on each class; this would then be balanced by the added outflow from class IV which would also export about 60% of its sons to classes I, II and III. These rates of movement only seem limited against the absolute standard of perfect mobility. The ideal of the threshold does not receive sufficient support from these data to be accepted. Perhaps a semi-permeable membrane might be a better analogy.

The second model which has been advanced as representing the main features of mobility is Parkin's 'Buffer Zone'. In this model

'The children of manual workers who cross the class line tend to assume fairly modest white-collar positions - as clerks, salesmen, shop assistants, schoolteachers, and the like. Recruitment to the established middle class professions requiring long periods of training and education is far less common We could sum up these remarks by suggesting that there is what might be called a social and cultural 'buffer zone' between the middle class and working class proper. Most mobility, being of a fairly narrow social span, involves the movement into and out of this zone rather than movement between the class extremes' (Parkin, 1971, 51, 56).

The effect of this buffer zone is to insulate the 'middle class proper' from the culturally-disruptive incursions of large numbers of ex-working class

incomers, so securing the middle class's privilege and also maintaining class values and identity. In the seven-category classification, the buffer zone can be equated with classes III and IV, and the dominant pattern of movement should therefore be between these two and classes I and II, or classes V, VI and VII. However, if we examine inflows (table 7.3) to classes I and II, there is a larger flow direct from classes V, VI and VII than from classes III and IV, in fact, almost exactly double (39.7% of the total, compared with 19.9%). However the flow into the two intermediate classes from below is heavier than the flow from classes V, VI and VII into the upper two categories: 579 cases compared with 492. A strict test of the buffer zone model would have to be that not only was this latter condition fulfilled, but the intermediate-to-upper flow would also have to be greater than the manual-to-upper flow, which it is not.

Parkin does not say much about the function of the buffer zone in downward mobility. Here the picture is the reverse of the upward pattern, with a smaller direct flow from classes I and II to the manual classes than that from the intermediate classes, but with a larger direct flow than that into the buffer zone. Again, only one of the two required conditions is met.

Even if one takes the outflow figures, the model cannot be clearly substantiated. The percentage flows direct into classes I and II from the manual classes are 3% greater than those into the buffer zone classes. The downward flows from class I direct to manual occupations are slightly smaller than to the intermediate zone (14.0% as compared with 16.4%) but those from class II are much larger (28.4% and 18.8%).

The heart of the problem for the buffer zone model is its more general assumption that all mobility is predominantly over a short range. If Parkin were correct, each class should have intakes which consist mainly of recruits from the immediately adjacent categories. But if the immobile are discounted, then all but one of the categories draw only around one third of their remaining intake from the categories immediately shown above and below them: the notable

exception is the semi-skilled group with double this level of 'local' recruitment, which may in part be due to technical problems of deciding the limits of semi-skilled occupations.⁽¹¹⁾ Intergenerational mobility does not predominantly consist of a series of one-place, short range steps, from one category to the next: recruitment draws instead from a wide spectrum of origins - although as was noted above, manual occupations have higher levels of mutual intake.

This means that the heterogeneity of origins is not just the heterogeneity caused by drawing on the two adjacent classes which have relatively similar origins, but is more complex and extensive, particularly in the non-manual sector. The diversity of composition thus not only applies over the whole range of categories, but is in each case extensive, although again, the important caveat about the manual groups needs to be made. These are 40% of the total workforce who inter-recruit extensively, but who have added to their own numbers just over 10% of the total workforce drawn from different origins. In this half of the society, then, only one in five has been mobile over a 'long distance' which includes crossing the manual/non-manual line. Conversely, the non-manual half consists of 25% of the total workforce which is inter-recruited, with an equal amount added from manual origins: one in two is a long distance mobile in this half, so that the heterogeneity of the non-manual sector is far greater than in the manual. Thus while Parkin may be correct in saying that not many semi-skilled or unskilled workers are recruited from the sons of professionals, managers and so on (but still nearly 1 in 10 in this case), 36% of the present category I, and 43% of category II come from the other side of the buffer zone.

The thesis of a buffer zone, in which cultural re-socialisation of the mobile is either unnecessary or can take a whole generation, and which protects

(11) This lack of a short-distance effect might be taken to mean that the conventional seven-category model is not a good representation of stratification effects: a less radical explanation is that the hierarchy is generally adequate, but that mobility patterns do not conform to this order. In other words, when people are selected for occupations, they are chosen through some mechanism which does not closely limit their range of mobility.

the upper middle class from social dilution, is not supported by experience of present-day Scots. It may be that the mobility over two generations and the intermediate classes does serve the functions which Parkin proposes, but it is not the dominant pattern of mobility. Such a process might be better pictured as a kind of fairly effective safety net, or perhaps a non-return valve, against downward mobility rather than a filter against upward mobility. This would be to change the significance which Parkin attaches to the buffer zone analogy very substantially, and to stress protection for offspring rather than closure against incomers.

The third model of mobility that was found in the writings of Miliband and Bottomore, for example, suggests that a kind of 'graduated closure' operates as one moves closer to the top of the stratified order until at the last, the narrow elite is almost totally self-recruiting. Any additional members are recruited only from those groups most like the elite, which in turn are nearly as closed-off to others below, as the elite is from its neighbouring groups. This model needs to be considered in some more detail than the previous two, for several reasons. In the first place, it has its particular relevance to theories of industrial society and the expansion of the new middle class. Second, reports of higher general rates of mobility need to be carefully qualified when it comes to identifying elite recruitment. And third, Goldthorpe's promotion of the idea of a service class has drawn attention to this upper part of the class structure.

Recruitment to the New Middle Class

An important first step must be to clarify the relationship between the study of 'elites' and the study of mobility. In fact few mobility studies can say much about elites, because elites are by definition small and unlikely to show up in discernable numbers in a national sample. There is therefore a natural temptation for sociologists to redraw the boundary of the elite 'lower down' the class hierarchy, in order to have sufficient cases to analyse: this has led to some confusion over definitions. In the present case, this temptation has been resisted, not least because of the considerations discussed in Chapter 4, namely that Scotland is unlikely to contain many of the British

elite, which is either metropolitan or internationally-based (see for example Giddens, 1974, 15). Careful scrutiny of our 4,887 questionnaires located 2, and possibly 3, individuals who could be safely said to belong to Giddens' elite, and perhaps up to 20 who might in an independent Scotland be recast in a more powerful mould. Power is both vertically and geographically concentrated in Britain, and Scotland is as much a Depressed Area in power terms, as in other fields.

But this is already to beg several questions about the nature of the powerful. In the first place it is assumed that there are relatively few people who are 'really powerful', and that they should not be confused with the middle or upper middle classes. (12) Because we wish to include writers who operate with elite and ruling class models - and some writers who use the two together - we do not distinguish sharply between them, or insist on one at the expense of the other. The difference between the two is important, but the precedent of Giddens and Bottomore shows that at times there can be advantages in operating at a less precise level (Giddens, 1974, x-xi). Obviously, this leaves great areas of the power debate untouched, and opens the way for the usual criticisms of both elite and class approaches.

(12) As some working definition is required, if only to know who these middle classes are, briefly 'power' is taken as residing in control of or interest in large blocks of capital, or occupation of command positions: this is a point to be returned to below. Pahl and Winkler's critique of such positional approaches can be thought of as extending to all mobility studies, because these operate with occupations as units of analysis. The 'upper middle class' is basically a category of occupational titles: mobility is only the exchange of one category (based on father) for another (based on self). It remains problematic how far an individual holding an occupation at any level actually exercises the power - of any type, basis or range to be posited - which is generally attributed to that position, or shares whatever ('class') characteristic that occupational grouping is meant to convey. But as mobility studies are essentially about occupations (and if they are to deal with the major dimensions of life chances, for the population as a whole, it cannot be otherwise) then they necessitate a positional style, Pahl and Winkler notwithstanding. Clearly, 'mobility patterns' require supplementing with research into the carry-over from background to present performance etc., to meet those authors' conditions of relevance (Pahl and Winkler, 1974, 121; Giddens, 1974, xii). An example in mobility terms can be found in Lee's discussion of what she calls 'business executives' in her book entitled 'Who Gets to the Top' (1981, 30-36).

The first step is to review several empirical accounts of elites, and the boundary with the upper middle class, in order to show where confusion has arisen over the size and function of elites, and therefore coloured debates about recruitment. Consider for example, the literature on inequalities in wealth, income and inheritance. The contributors to Urry and Wakeford refer variously to over 1%, 2%, 5%, 7%, 10% and 12% of the population as being the high earners (Urry and Wakeford, 1973, 18-60). It is true that such measures help to demonstrate the steepness of the income gradient 'at the top', but is the reader to conclude that the elite or ruling class consists of one person in a hundred - or one person in ten? Westergaard and Resler (1975, 156-9) suggest that the 1.5% of all adults aged 25 and more, with holdings in excess of £5,000 in 1970 (and more so the 0.6% holding £20,000 or more) are the only people who can actually exercise any influence on business policy - and that within an arena in which the largest blocks of share holdings are held by companies and not by individuals. Do the interests of these powerful individual share-owners coincide with the larger group (about 7%) with smaller holdings? If we assume that this is typically so, we effectively have an 'active' and a 'passive' division within the stock-holding class: the former have a degree of power, while the latter can be thought of as a reserve group which provides some kind of ideological support and legitimation.

The size of such a reserve group varies from writer to writer. Parkin is a case in point. His argument over several pages can be fairly indicated by three successive quotations. Firstly, on the basis of occupations and rewards, he identified two main classes:

'to characterize the occupational order as the backbone of the reward structure is not to ignore the role of property but to acknowledge the interrelationship between one and the other ... the fact that we do speak of a class system suggests that we can distinguish some significant break in the reward hierarchy. In Western capitalist societies this line of cleavage falls between the manual and non-manual occupational categories' (Parkin, 1972, 24-5).

which includes the question of control over the state apparatus:

'It is the highly patterned nature of the inequalities we have so far examined which enables us to portray the reward system in terms of a dichotomous or two class model ... within the context of a dichotomous class model, the dominant class seeks to preserve its awards and privileges vis-a-vis the subordinate class ... the ability of the dominant class to maintain a privileged position for themselves and their progeny rests largely on the fact that representatives of this class have greater access to or control over the various (state) agencies which govern the allocation of rewards' (Parkin, 1972, 26-7).

We must assume then, that since he does not mention any other class, the non-manual workers as a whole are Parkin's dominant class. Not only do the dominant class of all non-manual workers have better access to and more control over the state:

'the very fact that the dominant class can successfully claim a disproportionate share of rewards vis-a-vis the subordinate class, is in a sense a measure of the former's power over the latter' (Parkin, 1972, 46).

If one takes Parkin at his word, then the dominant (i.e. powerful) class includes 36% of the G.B. male working population using the Registrar-General's classification (Census, 1971, Economically Active Table 29) or the 55% or 44% as defined by Goldthorpe (1977) for England and Wales, or the 39% for Scotland using the Scottish Mobility Study classification. These figures contrast starkly with Westergaard's 0.6% of rich and power stockholders.⁽¹³⁾

A third type of confusion can be found in the work on recruitment and access to positions of power. In his chapter on "Economic Elites and Dominant Class" Miliband rejects the notion of a separate managerial class, partly on the grounds that their social origins are the same as those of the large-scale capitalist owners. His managerial element includes "all layers of management" and the origins cover both upper and 'upper middle class' families (Miliband, 1969, 36-38).

(13) This is one point where the difference between elite and class models shows up. Parkin is talking (somewhat loosely) about the large number of beneficiaries in the system of rewards: Westergaard and Resler are intent on showing that if 7% (on their criteria) benefit, only 0.6% have the means of exerting any significant leverage. So that Parkin is talking about a reserve class, and the others about an active elite. The advantage of the latter approach is that it specifies the mechanisms involved more clearly.

This seems to be a confusion of senior management with management in general. As other writers, such as Nichols (1969, 61-2) and Westergaard (1975, 161-5) have pointed out, it is one thing to argue that a group of senior managers have day-to-day charge of capital, if this refers to that small category of Directors who make up the Boards of large companies. But that is not the same thing as saying that such men are a separate class, nor is it to say that all levels of management are included in this (still less is it to include all 'technical, planning, and other specialised staffs' as having managerial power, as advocated by pluralists such as Galbraith (1967, 69), Lenski (1966, 364-5), Burnham (1945) or Crosland (1956)). Equally, the debate in recent marxism on the professional/managreial class raises similar problems (eg, Poulantzas, 1973; Hunt, 1977, and the discussion in Chapter 2).

Miliband writes of advanced capitalist societies that

'elite recruitment in these societies has a distinctly hereditary character. Access from the working class into the middle and upper class is generally low' (Miliband, 1969, 39)

However, elite recruitment is not the same thing as access to the middle class. Elite recruitment must, if it is to have any analytical utility, mean recruitment into the 'upper class'. Given the general acceptance over the last decade that occupational mobility is infrequent and occurs only over short-ranges of the occupational structure, most sociologists would expect to find mobility from manual workers' families into the routine clerical sector of the middle class. But they would not expect to find such a pattern of recruitment from manual workers into the upper- or even upper-middle-class.

It has already been observed above that this version of mobility is attributable to Glass, but to a degree it is Miller's re-presentation of those data that has been influential. Miller links the Glass findings to other studies of elites, suggesting that a general feature of all societies is that there is little movement from the manual strata into elites of various

sizes, both in Britain, and in other national and local studies: his data are given in Table 7.5

Table 7.5: Working-Class/Manual Movement into Elite I and II for Selected sizes of elites

	<u>Size of elite</u>	<u>Working classes into elite</u>	<u>Manual into elite</u>
A.	Under 4.6%	%	%
	Belgium I (St-Martens-Latem)(Elite I & II)	0.0	0.0
	Denmark (Elite I and II)	*	1.1
	France (Elite I)	1.9	1.4
	Great Britain (Elite I)	*	0.6
	India (Poona) (Elite I)	*	0.7
	India (Poona) (Elite I and II)	*	1.4
	Italy (Elite I)	*	0.0
	Netherlands (Elite I)	*	1.2
	Puerto Rico (Elite I)	2.6	1.5
	Sweden (Elite I)	2.3	1.8
	West Germany (Elite I and II)	1.6	1.5
B.	6% - 8.5%		
	Brazil (San Paulo) (Elite I)	*	1.0
	France I (Elite I and II)	4.2	3.5
	France II (Elite I and II)	2.0	1.6
	Great Britain (Elite I and II)	*	2.2
	Italy (Elite I and II)	*	1.5
	Japan (Elite I)	*	3.9
	Sweden (Elite I and II)	4.4	3.5
	USA I (Elite I)	*	3.4
C.	10% - 15%		
	Japan (Elite I and II)	*	7.0
	Netherlands (Elite I and II)	*	6.6
	Puerto Rico (Elite I and II)	11.4	8.6
D.	Over 15%		
	Brazil (San Paulo) (Elite I and II)	*	5.3
	USA I (Elite I and II)	*	7.8
	USSR (emigres) (Elite I and II)	14.5	*

* Unavailable

Source: Miller, (1960, 38).

This table together with Miller's commentary (Miller, 1960, 36-41) would lead the reader to accept that elites are relatively closed.

The first objection to this conclusion is that the percentages are misleading. Taking the original data for Britain, the '0.6%' flow from manual into 'Elite I' consists of 12 men now in Glass's Category I, out of all 2,200 men born to manual backgrounds (Categories 3b-5) who were 'at risk' of being able to move from 'manual' to 'Category I'. But since Elite I has only 103 members, the maximum flow could only be $103/2200 = 4.7\%$. Again, Miller's 'Elite II' is shown as taking 2.2% of the manual class (49/2200): by the same logic, its maximum flow is $262/2200$ or 11.9%. These percentages depend on the size of the class of origin, in this case the manual class, in relation to the size of the elite: the larger the manual class for the same size of elite, the smaller will seem the flow. In presenting the data as percentages without immediate comment on the range of possible values, it seems that Miller may have contributed to a misreading of elite recruitment.

By extension, what if Miller had expressed recruitment as a percentage of inflow, rather than outflow? The two figures for the elites would have been $12/103$ and $49/262$: 11.7% and 18.7% of the current elites were recruited from the working class. The theoretical upper limit of this measure would be 100%. It may well be that 11.7% and 18.7% would still not be regarded as large flows: after all, how 'big' is 'big'? But a commonsense view of perception would suggest that 11.7% is likely to seem a lot more than 0.6%; and 18.7% to seem more than 2.2%. (14)

(14) A similar argument applies to Miller's statement that there is more downward than upward mobility in industrial society: it all depends on what bases are used for calculating the percentages being compared (see Miller, 1960, 34). It must of course be remembered that all these figures for Britain come originally from Glass, so that they are unreliable as estimates of 'true' mobility.

Thirdly, there is the question of Miller's use of the term 'elite'. In Table 7.5 above, the term 'elite' has been employed to refer to groups of very different sizes, because the original studies have been so varied in their approaches. Thus 11 studies are taken as operating with an elite of under 4.6%, 8 with elites between 6% and 8.5%, 3 with over 10% and 3 over 15%. The inclusion of such different categories, all under the term 'elite', is not only an inconsistent useage of the term, but is a potential source of considerable confusion. It is one thing to discuss mobility into the top-decile of occupations: it is another to talk about recruitment or access to elite positions. The high reputation of Miller's work may well have produced the unintended consequence that subsequent writers on elites failed to differentiate between occupation-based general categories such as the 'upper middle class', and their own more rigorously defined conception of elites.

Goldthorpe has addressed this problem by means of Renner's concept of the 'service class' - or more exactly, by means of Dahrendorf's version of Renner's work. Although Goldthorpe clearly recognises the elite boundary problem (1980, 45) he is surprisingly brief in his theoretical statement of the service class model. On page 40, the reader is told that Goldthorpe's Class I (of seven classes) can be

'taken as very largely corresponding to the higher and intermediate levels of what Dahrendorf, following Karl Renner, has termed the 'service class' (Dienstklasse) of modern capitalist society - the class of those exercising power and expertise on behalf of corporate bodies - plus such elements of the classic bourgeoisie/ independent businessmen and 'free' professionals as are not yet assimilated into this new formation. (op cit, 40).

Goldthorpe's Class II, he goes on to say are the subaltern or cadet levels of the service class, while Class III is not part of it (40-41). Upward mobility will be defined as only those movements into classes I and II, and while there is some initial discussion of each of these classes separately, this is soon superceded by a style of analysis which treats them together as one service class. This is justified on the pragmatic grounds of needing

to simplify the analysis (*ibid*, 51). The collapsed 3 'class' model dominates the remainder of the book. Although the reader will pick up several comments on the mobility and employment characteristics of the service class, there is almost no further explication of the basic category being used, although Goldthorpe has since added to this as noted above in Chapter 3 (see Goldthorpe (1982)).

Although Goldthorpe is therefore careful to distinguish between the elite and the service class, his solution raises as many problems as it solves. First, we now have a major boundary drawn below Class II, so that the service class is a large one, including a number of relatively less influential managerial and technical occupations, all of which are said to exercise 'power and expertise on behalf of corporate bodies'. This must run the risk of confusing the extensive control and very considerable expertise of the Class I managers and professionals with the lesser powers and skills of Class II. Second although Goldthorpe thereafter talks about the service class, his Classes I and II include 'elements of the classic bourgeoisie' which are not in Dahrendorf's original formulation (Dahrendorf, 1964, 244-252). Third, the entire emphasis of mobility analysis is shifted because of his particular re-definition of what he will accept as mobility, ie moves into and out of Classes I and II.

A more conventional approach is adopted here, which concentrates more narrowly on the upper echelons of the managerial and professional class, i.e. Class I, the 'upper middle class'. This term, together with the distinctive label 'lieutenant class' to identify the specific operationalisation used in analysing the Scottish data, specifies that part of the middle class which typically does not own or exercise strategic control over large blocks of capital, and does not occupy key command positions in the state apparatus: when we say 'managers', we do not mean senior management in the major companies in the economy. Nor, at the other end, are routine clerical workers, foremen, 'one-man businesses', or even semi-professionals (teachers, social workers, etc) managers of small firms, or farmers included: all routine and intermediate skill levels (and reward levels) are excluded. This leaves professionals

(both self-employed and employees); managers and administrators of large organisations (both commercial and governmental); and senior supervisory staff - in all, about 12% of the male workforce.

By defining the upper middle class in this way, there is no danger of mistaking it for the elite theorist's idea of 'really powerful' groups in society and it can be analysed, if not in isolation from the upper class, at least independently. It will rapidly become apparent that the generally acceptable sociological wisdom about where, and how much, mobility takes place in Britain is seriously open to question. This applies particularly to the position adopted by Bottomore and Miliband, who regard the occupational hierarchy as increasingly closed in its upper reaches. The former has written that movement into the class which includes company directors, landowners, professionals, higher civil servants and others of similar social position (i.e. our category 'I'), is 'very limited in any society and notably so in Britain' (Bottomore, 1965, 38), while Miliband - who, it should be said, is more concerned with elite recruitment and political power - agrees that the 'upper and middle class in these (capitalist) societies is still largely self-recruiting and therefore to a marked degree socially cohesive' (Miliband, 1969, 44).

As we have seen earlier in this chapter, there are two standard ways of examining the openness (or otherwise) of the upper-middle class ('UMC'): inflow analysis, which deals with the recruitment of the present class from various social origins, and outflow analysis, which deals with the present destinations of all those whose family of origin was in that class. These complementary perspectives on the patterns of mobility are shown in Table 7.6 which for reasons of convenience abstracts the most relevant features from Tables 7.3 and 7.4

Table 7.6: Recruitment in the Upper Middle Class (or 'Lieutenant Class')

	a Origins of Present UMC (Inflow)	b Destinations of UMC sons (Outflow)
I. Professionals and Managers (UMC)	23.3	44.8
II. Semi-Professionals, 'Small' Managers	19.6	24.8
III. Foreman, Self-Employed Artisans	13.8	6.3
IV. Routine-White Collar	7.5	10.1
V. Skilled Manual Workers	16.5	4.9
VI. Semi-skilled Manual Workers	9.3	4.9
VII. Unskilled Manual Workers	10.0	4.2
Totals	<hr/> 550	<hr/> 286

It will be immediately clear from col. (a) that less than one quarter of the present UMC has been recruited from its own ranks and more than one third come from manual working class origins. While there is a degree of concentration at the top (classes I and II are the biggest contributors), the composition suggests considerable openness, and mobility for one in three is of a 'long-range' character across most of the occupational structure. As far as origins are concerned, the UMC cannot be said to be either closed or homogeneous.

In terms of outflow (col. (b)), less than half the sons of the UMC retained their occupational advantage. Most of the less-successful sons did manage to preserve a non-manual position, but again, this is not the picture of overwhelming self-recruitment and inheritance of advantage that earlier writers have assumed. It is all the more striking, in that the data cover a period of rapid expansion of UMC occupations so that the conditions

for the maintenance of occupational privilege should have been relatively favourable.

This occupational privilege is considerable, and consists of several elements. By definition, the UMC is popularly seen as having the most desirable occupations, with greater security, autonomy, satisfactions and rewards. Incomes from employment are higher, there is more chance of ownership of shares and property, and personal possession of housing, consumer durables, and privileged education are more common. Some further details of these features are given below in the discussion that concludes this chapter, and they provide the empirical grounds for regarding the UMC as 'privileged'. They may not occupy positions of power in the sense of an elite or ruling class, but they are undoubtedly important material beneficiaries of the current forms of state and industrial organisation. (15)

However, not all families in the lieutenant class are equally successful in maintaining their position. The 'track records' of the four constituent occupational categories of the UMC in placing their sons are somewhat varied. 46% of the sons of professional employees have made it into the UMC, as did 44% of managers' and proprietors': however, the sons of the self-employed professionals did much better, with 61%, and the sons of other senior staff did rather worse, with only 35%. On this outflow evidence, the self-employed are the most secure in their privilege, while the bureaucratic technical experts are less so, particularly those senior staff who are only marginally of managerial or professional status.

(15) In one sense, the self-recruiters in the UMC can be seen as being more 'elite-like' than the newcomers. They hold a sort of half-way house position between elite and nouveau-UMC: their family status has survived two generations, their recruitment is narrow from near the top, they resemble the traditional model of an elite found in Miliband, etc. Additionally their financial rewards are greater than their first-generation counterparts, and their education has also been more privileged, as will be shown below.

One thing that is striking about these various rates of self-placement is that they bear almost no relation to strict self-recruitment. Professionals have placed 29% of their sons in the professions, and 17% in other UMC occupations. Both self-employed professionals and managers and proprietors have about 18% of their sons in their own sector, but whereas the former have a further 43% in the UMC, the latter have only 26%; so that while the sons of managers and proprietors maintain their privilege to the same extent as professionals, they do so more by transfer to other sectors, most notably to that of professionals, than by narrow self-recruitment.

Thus inheritance is not 'direct', even for those categories - the self-employed, and managers and proprietors - where the question of property inheritance might be involved. The occupational advantage of the father is converted into a general currency of advantage which does not rely narrowly on personal influence or ownership for occupational entry (cf Boudon, 1973, Bourdieu, (1973). The family's privilege is maintained by the son's entry into an occupation of comparable status (or more accurately, general desirability). This is perhaps most surprising for the self-employed professionals, dominated by the old professions, where less than one in five sons followed their fathers, choosing instead to follow mainly salaried professions.

We know from sources such as Kelly (1976), and Cruickshank and McManus (1976) that the mechanisms of recruitment still strongly favour father/son succession among some of these self-employed occupations, and the operation of 'practices' provides a property resource (of apparatus, clients, etc) for the marketing of professional skills, which the sons can either take over, or use as capital for entry into another professional business. But most of the sons of self-employed professionals have not taken this option, and among the UMC respondents as a whole, we appear to be talking about only 6% who could possibly have made direct use of property inheritance for job entry. There may of course be some delay in taking over from the father, which would depress this last percentage.

A second aspect of these flows between sectors relates to the managerial revolution thesis that a new class has emerged. At this 'below senior management level', there is no evidence to suggest that managers per se presently constitute a new closed group with inherited privilege. Less than 1 in 5 managers' sons have become second generation managers; nearly half the sons of managers are downwardly mobile; the rest have converted their privilege into wider professional (and mainly bureaucratic) employment. Even if the writers on industrial and post-industrial society, discussed in chapter 3, were correct about the significance of technical expertise and the division of ownership and control, these UMC managers have yet to show any signs of consolidating their new economic power into dynastic security of the kind presumably enjoyed by the owners, and without this achievement (on lines pointed out by Mills, 1963) their participation in a 'revolution' is incomplete. (16)

Furthermore, these same patterns of inter-sector recruitment do not support what Westergaard and Resler have characterised as 'the thesis of benevolent managerialism' (Westergaard and Resler, 1975, 170), namely that the new managers bring with them a social ethic of responsibility to temper the owners' need for profit maximisation. This reorientation of policy criteria depends on

'an increasing recruitment even of top level management from among professionals and technical specialists. For they par excellence can be expected to be job-, product-, and growth-orientated rather than dedicated to profit maximisation' (Westergaard and Resler, 1975, 155)

(16) This statement refers to management in the UMC, and not to its highest echelons where other processes of recruitment and privilege maintenance are assumed to operate: see Nichols (1969). Consolidation is of course only one dimension among several of both class formation and power-holding.

But as we have seen above, despite the growth in the managerial sector (one new recruit needed for every 3 managerial origins) there is little sign of a significant flow from professional and technical specialist backgrounds (i.e. those who would be expected to have an ingrained family culture of professionalism) into management. The flow has been less than 9% of the absolute potential, and such ex-professional incomers are only 6% of all managers. Conversely, a quarter of managers' sons have joined the professionals, and they make up nearly twice as big a proportion of current professionals as the ex-professionals do of current managers. If anything, the professionals are being infiltrated by the managers, not the reverse, so that wherever the social ethic in managerialism is supposed to come from, it is not from inter-generational inter-sector recruitment.

A further difference between the two groups is the outflow of sons who are downwardly mobile. More than half of both the professional groups' downwardly mobile sons found jobs in Class II (semi-professionals small proprietors and managers), compared with less than 40% of the sons of managers and senior staff. A quarter of the senior staff's downwardly mobile sons and third of managers' downwardly mobile sons are in manual work, a fate that befell only one tenth of self-employed professionals', and only slightly more of salaried professionals' sons. The latter two categories also exported a smaller proportion to the 'supervisory and self-employed artisan' Class III, which may be the result of a lack of a connection between the worlds of professionals and industry. Putting it somewhat over-simply, the less-successful sons of the professionals go in for semi-professional and white-collar jobs; while the less-successful sons of senior staff and, even more

markedly, of managers, are just as likely to end up in lower-grade industrial occupations.

But in contrast to this picture of openness in downward mobility, there are signs of growing maintenance of privilege in recent years, as the trend analysis in Table 7.7 shows for men aged 30 or over. (17)

Table 7.7: Trends in UMC origins and destinations for four cohorts of men now aged 30 or older*

a) Outflow

<u>Year of Birth</u>	I	II	III	IV	V	VI	VII	
1909-1918	42.9 21	18.4 9	6.1 3	14.3 7	4.1 2	6.1 3	8.2 4	49
1919-1928	56.8 25	25.0 11	6.8 3	4.5 2	- -	2.3 1	4.5 2	44
1929-1938	56.0 28	18.0 9	4.0 8	2.0 1	2.0 1	2.0 1	4.0 2	50
1939-1944	70.6 24	23.5 8	- -	5.9 2	- -	- -	- -	34 n=177

b) Inflow

<u>Year of Birth</u>	I	II	III	IV	V	VI	VII	Total
1909-1918	24.7 21	22.35 19	14.1 12	5.9 5	15.3 13	10.6 9	7.1 6	85
1919-1928	19.2 25	20.0 26	16.2 21	4.6 6	20.0 26	8.5 11	11.5 15	130
1929-1938	20.9 28	14.9 20	14.9 20	9.7 13	17.2 23	12.7 17	8.2 11	134
1939-1944	36.4 24	27.3 18	7.8 5	6.1 4	7.6 5	7.6 5	7.6 5	66 n=415

* Younger men excluded as lacking time to develop a full career

(17) This trend analysis is carried out using fairly crude methods. A fuller and more sophisticated account is given in chapter 8.

Whereas at the start of the period, only 42.9% maintained their station in the UMC, by the end 70.6% were achieving this. And of those who did not, most were in Class II (semi-professionals) and none had become manual workers (Classes V - VII). In the oldest cohort, the sons had a 60/40 risk of downward mobility; the middle cohorts improved to 45/55, and the youngest cohort (albeit on the basis of small numbers) had made it to 30/70. So that while not dominating the UMC in the sense of making it their exclusive preserve, the upper middle class appear to have become increasingly successful in maintaining their inter-generational privilege.

However, as Table 7.7 also shows, the trend of inflows of new recruits to the UMC is less marked. The main feature is that throughout the period, self-recruits have never been more than 36.4% of the total and they were generally less, at around 20 to 25%. There is no sign of a consistent trend for the incomers' share of UMC occupations to increase or decrease, although the total size of the UMC has tended to expand. The larger totals for successively younger cohorts (1939-1944 is a 'half cohort') is despite a career effect which works in the opposite direction: the UMC's proportion of the whole sample is 10.5%, 12.3%, 13.6% and 13.1% for the four cohorts respectively. The first conclusion from this is that, since World War I, the lieutenant class has always been predominantly drawn from 'other ranks': we are not dealing with a new phenomenon, but merely one that has previously been under-estimated. Secondly, as the size of the class has expanded, the expansion has worked to enable more of the lieutenant class to remain in the class of their birth.

The picture of privilege maintenance that these various figures present is not one which can support a simple model of the closure of the UMC. Firstly, these UMC sons who 'make it' into the UMC are not following in their fathers' footsteps: whatever cultural or other capital they have is a general currency. Secondly, while there is inheritance of advantage, in that a greater proportion of UMC sons 'made it' than the children from any other background, the majority of UMC sons have been downwardly mobile, albeit by a small majority. Thirdly, there is some signs of privilege maintenance becoming more common, but this is at the same time associated with inward recruitment from the lower classes. Thus the extent to which it can be said that a specific inherited culture is shared by all UMC sons is severely limited, since this culture is being exported into other occupational groups, and also attenuated by heavy in-recruitment from other classes. The new recruits to the UMC outnumber the 'immobile', or 'self-recruiters' by 3 to 1. This is the reverse of the pattern which Miliband has described in reference to elite recruitment, which is one where

'the upper and middle class in these (capitalist) societies is still largely self-recruiting and therefore to a marked degree socially cohesive' (Miliband, 1969, 44).

Nor does the current evidence accord with Bottomore's view that access to a rather broadly defined upper class is 'very limited in any society and notably so in Britain' (Bottomore, 1965, 38). Even allowing that a different definition of the 'upper class' is being employed in this second case, it is clear that recruitment patterns are very different from what both Miliband and Bottomore have assumed.

Is this difference crucial? In the first place there is the plain matter of empirical evidence and specific statements: recruitment does not operate in the lieutenant class in the way which, say for example Miliband, has said that it did. Secondly, there is the question of how such specific

assumptions under-pin general models of a ruling class or elite. In the work of Bottomore, Miliband and others like them, there is sense of graduated insulation about the rulers. Recruitment is either from their own ranks, or from the group closest to them, which is almost as closed as the elite itself. The tumult of the multitude has to pass through many baffles before it can disturb the peace of the inner corridors of power. Against this, the new data on mobility rates seem to suggest that the lieutenant class is already open to the other classes: it is filled with men from humbler backgrounds. So the Masses are at the Gates, and their clamour fills the Palace. With these alternative impressions guiding them - sociologists would expect to find differences in the ways which the power-holders protected their continuity and exercised their power - if indeed they could continue to do so.

However, the Masses (and not even all of them) are only at the Gates: they are not yet inside. There is a striking dissimilarity in accounts of closed access and self-recruitment among those supposed to be the holders of large blocks of capital and the occupants of key command positions on the one hand, and the new indications of openness in the lieutenant class on the other. A quick review of the readings in Stanworth and Giddens shows the following patterns:

(Table 7.8 follows on the next page.)

Table 7.8: Elite Recruitment in Various Studies *

Year	Category	% Recruitment from Origin	Reference	Comment
1970	Labour M.P.'s	27% ex-working class (i.e. by own earlier career)	(Guttsman) p.23	Class of recruitment is based on own earlier career, not on father's occupation
1970	Tory M.P.'s	0.9% by same definition	p.34	
1955-70	Labour Cabinets	35% ex-working class 62% middle class 3% aristocracy	p.36	
	Tory Cabinets	0.0% ex-working class 79% middle class	p.36	
1900-72	Company Chairman	1.3% ex-working class 13% middle class 85.7% upper class little change by cohort: Working class % is 'negligible' at all periods; but the proportion from middle class origins seems to have declined slightly.	(Stanworth & Giddens) p.83 p.89	For those with known origins
1960-69	Millionaires (deceased)	18.9% 'manual or low clerical' 66% 'established upper class'	(Rubenstein) p.162	For those with known origins
	Half millionaires	6.9% 'manual or low clerical' 79% 'established upper class'	p.163	
1966-67	Open Competition Entrants to Administrative	19.4% routine white collar or skilled manual 4.6% semi or unskilled skilled manual	(Kelsall) p.173	Evidence from Committee on the Civil Service (1979)
1967	Upper Grade Civil Service in Post	24.9% routine white collar or skilled manual 6.1% semi or unskilled 'guess' that future higher Civil Service 'will be significantly more homogeneous in social background'	p.173 p.184	
1960-date	Bishops	28% not professional or landed	(Thomson) p.201	

* The references are all to Stanworth and Giddens (eds), 1974. The reader is cautioned that each study has its own definitions of 'working class', 'clerical', 'middle class', 'upper class', 'aristocracy', etc. and these are not strictly comparable.

There is clearly a considerable difference between the lieutenant class, recruited 25% or at very most 45%, from the upper parts of the middle classes, and the elites recruiting at 85%, 80%, 66%, 75% or 72% from the higher echelons. How can this be explained? It may be methodological artefact: the mobility data refer to origins since 1909, and destinations in 1975: respondents are aged 20 to 64 years, and so are at all stages of their careers. The elite data, on the other hand, were collected mainly in the late sixties or 1970, and presumably deals with mature men at or near the peaks of their careers. So the differences in recruitment could be due to the time of the research, or to some career factor. The first explanation we reject as implausible; we know of no supporting evidence that the last ten years have seen the sort of dramatic democratisation required to bring the two patterns into agreement. The second explanation would require that many young middle class sons start work at lower levels, and then later in their careers recover their upper middle class status in such numbers as to balance out (presumably not displace) the incomers.

As Goldthorpe has shown for England and Wales, there is a degree of this later counter-mobility (Goldthorpe, 1977). However, unless one assumes actual displacement, the return flow could not be large enough to produce sufficient adjustment to bring the two patterns into line and as Chapter 9 shows this does not happen. So while the mobility survey may underestimate self-recruitment because of the career effect, the difference between elite and lieutenant class recruitment patterns would still be between 15%, 20% or 25% when the most generous (or implausible) allowances are made. It seems reasonable to infer that the elites, narrowly-defined, are much less accessible than the lieutenant class, that their backgrounds and recruitment systems are very different, and that the elites are not 'like' other occupational

groupings because of this (18).

Now it is important to remember that what one has here is a discontinuity between evidence about family backgrounds in some positional elites on the one hand, and a set of occupations on the other. This is not in itself direct evidence for the existence of an elite, or that the positions discussed by the contributors to Stanworth and Giddens have in some way been shown to be powerful because self-recruitment is high. At best, these recruitment data are compatible with such an interpretation, but mobility studies are about jobs, careers and backgrounds, and it is dangerous to over-extend their findings.

The importance of the discrepancy in the recruitment patterns is two-fold. It would seem that this kind of formulation of the problem - i.e. contrasting the 'really powerful' with the 'not quite so powerful' - might be a fruitful line to follow, provided an adequate conception of power could be made. In other words, as Giddens has implied (Giddens, 1974, xii), the study of careers and avenues of connection may sustain positional analysis. Secondly, if the 'top people' and the lieutenant class are rather different, their inter-relationship - dependent, supportive, legitimative, recruitment pool etc., - therefore now seems more problematic, and is in need of further empirical research. It is a problem which cannot be solved at a purely theoretical level, despite the efforts of the writers discussed in chapter 2 and 3.

(18) It is interesting that Pahl and Winkler (1974, 241) have speculated that mobility research may have over-estimated upward mobility into the elite by over-estimating the size of the elite. One must have some sympathy with this opinion, but it does suggest that the UMC/elite differences could be even greater than the ones that we discuss. That being so, the reader may care to consider whether other arguments could explain away some of this difference: for instance, is the Scottish UMC more open than the English UMC, so that the latter is closer to the English elite? In fact, while we do not present data on this, Goldthorpe (1980) suggests little variation, and that if anything, this would be in the reverse direction.

Some concluding remarks

This account of mobility has not revealed a neat or simple pattern. On the one hand there are elements of fluidity, while on the other hand, we find sharp class differentials in access. These are not purely artefactual, despite the earlier observations about the way certain techniques tend to emphasise one view or another: not for the first time, the real world has proved to be complex.

The three models of the class structure that have been re-examined in the light of the Scottish data have all been found to be inadequate. There is almost no evidence of a threshold effect, only a little more for a buffer-zone, and the thesis of progressive closure seems to survive only as an observation about elites narrowly-defined. Underlying all three of these models is the basic misconception, drawn from Glass, that almost all mobility is short range. Once it has been demonstrated that short-range mobility is not the dominant feature, these theoretical constructions require rebuilding. A similar view of short-range mobility (which dates from Sorokin) also appears in the writings of others like Parkin and Giddens, but in a more diffuse form; some implications of this will be drawn in the final chapter

Although one or two images - safety-net, semi-permeable membrane - have been suggested, the complexity of the actual processes does not easily lend itself to handy metaphor. The basic pattern is a product of several tendencies:

- a) Nearer the 'top', there is high self-recruitment and low export of sons to the lower levels.
- b) Nearer the bottom, there is fairly high self-recruitment and fairly high export of sons to the upper levels.
- c) At all levels, a majority of sons enter other classes, and in all classes, the in-comers heavily out-number those whose fathers were in the same class.

In discussing these results (indeed in conceptualising them in this way) the chapter has followed the main tradition of mobility research, namely the identification of class boundaries, in equality of access to non-manual

classes, and the components of class formation, that is to say the investigation of upward mobility and the lack of it, particularly in reference to the higher groups.

The latter part of the chapter has attempted to develop aspects of the sociology of the new managerial and professional class. Their backgrounds are fairly diverse, and their capacity to pass on occupational advantage, although relatively high, is still limited. It follows that their ability to generate a cohesive identity or class position seems very restricted as far as mobility is a factor, so that there is a disjunction between functional necessity under a technological system, and capacity to act as social class. Of course, the processes of selection and re-socialization work to counteract this, but such processes clearly must be accorded much more emphasis than hitherto, because the mobility rates are now seen to be so high.

The present chapter has attempted to answer what can be seen as the most fundamental question about mobility, namely how much movement is there between origins and current status? In examining some of the implications of that answer, the dimension of occupational change has not always been paramount, because the initial question is framed in static, if historical, terms. Occupational transition has been included either by reference to the father's distribution (a less than perfect representation, as the earlier critique of Glass explained) or by implication rather than explicitly: mobility rates are the results of a background process previously described. Now that the basic pattern is clear, we can deal with the second of the main mobility questions, is society becoming more or less open? This is a dynamic question, and one that lends itself to a more explicit answer in terms of the dynamics of economic change, as we shall see in the next chapter.

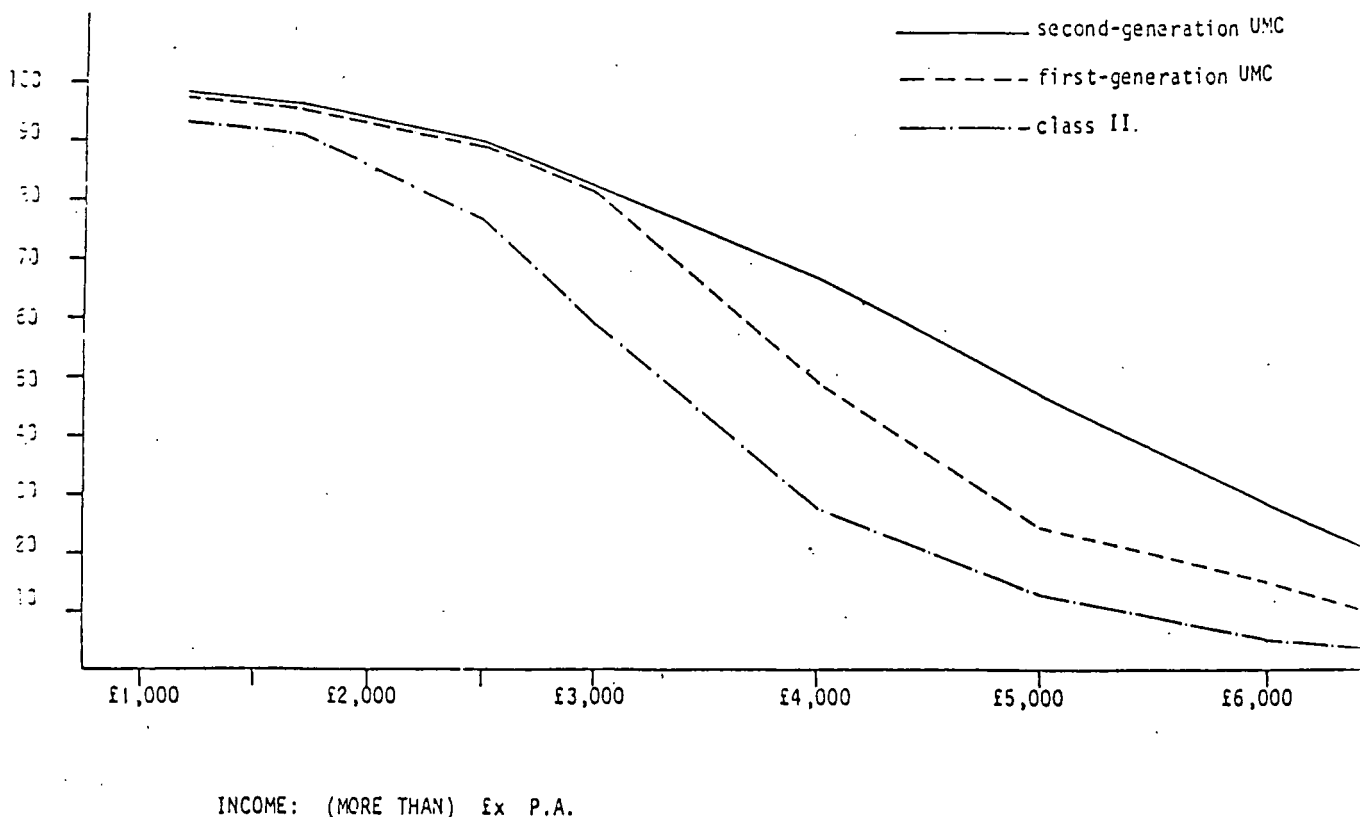
Appendix to Chapter 7 : The Service Class and the Lieutenant Class

The service class and the lieutenant class concepts are essentially similar, but differ both in their conception and definition, the service class being large and operationalised as classes I and II of Goldthorpe's collapsed seven category schema, and the lieutenant class somewhat smaller, comprising class I of the SMS schema. Details of the occupational composition can be found in the Appendix I. This appendix presents some empirical data on the difference between SMS class I and class II, to amplify the conceptual aspects dealt with earlier in the chapter, and to show why class I can be sufficiently distinguished from what Goldthorpe regards as the cadet level of the service class as to be treated separately.

As already noted, Goldthorpe's service class covers a wide range of Hope-Goldthorpe Occupational Grading scale points (82.05 to 45.15). The lieutenant class on the other hand, covers a smaller range, from 82.05 to 60.12, with consequently less overlap of scores. These higher scores mean that the general public see these occupations as being, an average, marked by higher pay, more security of employment, pleasanter work conditions, and greater autonomy than other occupations (Hope and Goldthorpe, 1974, 13). It follows that although this is not evidence that the UMC, as a privileged group per se, is part of some general class-image, there are nonetheless empirical grounds that most people do identify the component occupations of the UMC as ones being socially advantaged vis-a-vis those of class II, as well as all other classes.

In the Scottish data, this can be demonstrated at least in terms of material advantage. As Fig 7.A. shows, people in the UMC have larger main incomes than other classes, and second-generation members of the UMC have even higher incomes than first generation new recruits to the class. These data, which have been indexed to September 1975, show that half of the UMC earned over £4,000, a quarter earned more than £5,000, and 10% earned

Fig.7A Gross Income p.a. from main occupation: cumulative % of Classes I and II indexed to Sept. 1975.



over £6,500. The comparable figures for class II are £3,300, £4,200, and £5,500. To put this another way the approximate proportions earning certain levels were:

£4,000 +	5% class I	28% class II
£5,000 +	25% class I	14% class II
£6,500 +	10% class I	3% class II

Of course income from main employment is only one index of material privilege. Income from other sources such as shares and property, plus job fringe benefits are also important, since only certain sectors of the population receive them. Our survey data on parts of these other sources of income are almost certainly underestimates of the true proportions, but nevertheless the UMC/class II differential is clear even in the reduced evidence. Over 20% of the UMC have income from shares and property, compared with 11.3% of class II, and 14% of them admit to fringe benefits, compared with 5.6% of the other class. The class II pattern is closer to that for class III and IV than class I.

This superiority of income has been translated into superior amenities for day-to-day living for both classes: the upper middle class are better housed and own more consumer durables than the rest of the sample. However, although there are differences between class I and II in life style (for example, 64% of class I are owner-occupiers, and 90% have telephones, as against 52% class II owners, and 82% with phones) the differences between these classes and classes III and IV are about the same. Both classes I and II stand out sharply against national figures at 29.4% and 56% respectively (Census Scotland 1971 Housing, p. 110 and personal communication with the Post Office). The general low level of house-ownership is a result of Scottish housing traditions: nationally 64.7% of Registrar General's SEG's 1-4 and 13 are home owners, compared with 64.1% of our (slightly-different) class I.

A third area of comparison, education, is also based in part on material advantage. Nearly one in three UMC sons attended fee-paying schools, the proportion for the other class was one in ten. About one in three UMC sons were educated at selective secondary schools: that is, the education system operated to select one third of those from that origins for academic education at 12 years of age, but it selected only a quarter of class II sons for that privilege. The educational pattern reinforces the material advantage and desirability figures to convey an image of considerable occupation-based privilege.

One final area of comparison could be rates and patterns of mobility. The data for these can be inspected in Tables 7.1, 7.3 and 7.3. However, since it is mobility that is the focus of the present study, it would be a rather circular argument to employ mobility as the one of basic identifiers of group membership, and then to use the class schema so defined as a means of analysing mobility rates.

On the whole, the weight of the evidence suggests a genuine difference between the two classes, although the order of difference on some of the variables is not great. Obviously, if we had to combine class I with

another class, it would be with class II. In some cases this may be necessary for technical reasons, or for simplification, but these do not constitute a reason for adopting such a collapse as a normal feature of the research. The discussion in this appendix has been in terms of the Scottish classes I and II, not those used by Goldthorpe, and their boundaries do differ: however, the same logic could be applied to the English data to examine how homogeneous the service class really is.

