

Rose, David; Pevalin, David J.

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The National Statistics Socio-economic Classification: Unifying Official and Sociological Approaches to the Conceptualisation and Measurement of Social Class*

David Rose and David J. Pevalin

Institute for Social and Economic Research
University of Essex

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ABSTRACT

In this paper we describe the history of official and sociological approaches to social classifications in the UK and how they came together in the ESRC Review of Government Social Classifications undertaken between 1994 and 2000. In doing so, we first review the strengths and weaknesses of the former official social classifications, Social Class based on Occupation (formerly Registrar General's Social Class) and Socio-economic Groups along with the alternative academic schemas and scales considered by the Review. Secondly, the conceptual basis and construction of the new classification, the National Statistics Socio-economic Classification (NS-SEC), is described in detail. Finally, the approach taken in the new classification is compared with other European national classifications in the context of the development of a harmonised socio-economic classification for the European Union.

Introduction

This paper is primarily concerned to introduce the new UK National Statistics Socio-economic Classification (NS-SEC) to a wider audience. To this end, we shall show why a new official socio-economic classification was required, how the NS-SEC is conceptualised, how it is measured and how it has been validated. In this context, it is also necessary to consider the development of the NS-SEC against the historical background of both official and sociological approaches to the conceptualisation and measurement of social class in the UK. Equally, this Anglo-Saxon approach to socio-economic classification may be compared and contrasted with the French tradition as embodied in the *Categories Socioprofessionnelles* (CSP). Furthermore, this comparison may prove useful in the context of the development of a harmonised socio-economic classification for the European Union.

Hence this paper will be in three parts. In the first part we shall begin with some historical background, first in relation to official socio-economic classifications (SECs)¹ in the UK and second in relation to sociological approaches. This will allow us to place the new NS-SEC in its overall context. The second part will address issues surrounding the development of the NS-SEC. Finally, in the third part we shall turn to a brief comparison of the NS-SEC and CSP, ending with a few remarks on the potential of these measures in relation to the development of an EU SEC. The paper's aims are thus quite ambitious. As a consequence we shall have to sacrifice some depth for the sake of the paper's breadth.

Official and Sociological Classification Traditions in the UK

Theoretical and empirical research on social stratification has been one of the hallmarks

of UK sociology since it burgeoned as an academic discipline after the Second World War (Marshall 1997; Newby 1982; Goldthorpe and Bevan 1977). Prior to this, empirical studies of poverty were particularly prominent, but Anglo-Saxon suspicion of theory restricted the success of these studies in terms of explaining poverty (Kent 1985). More recently, as we shall see, academic sociologists have developed new, theoretically informed approaches to socio-economic classification. However, the concern to understand how life-chances are related to social positions as measured by a social class scheme also pre-dates the establishment of serious academic sociology in the UK. Rather, this approach has its origins in official statistics. In particular, the Registrar General's Social Class (RGSC) scheme of 1913 (Stevenson 1928), especially as substantially modified in 1921, has been of enormous importance. It has been widely employed, particularly in the study of health inequalities, and represents a tradition in the analysis of official statistics that stretches well back into the nineteenth century (Szreter 1984; Leete and Fox 1977; Fitzpatrick and Dollamore 1999). The RGSC also provided the basis for the main classification used for market research in the UK, the Social Grade scheme (MRS 1991). Thus, not only sociologists but also government officials and market researchers in the UK have had an abiding interest in social stratification and social classification in general and in social class in particular (Marsh 1986a).

That social class should have attracted so much official, academic and, indeed, popular² attention in Britain is perhaps no surprise. Class has sometimes been referred to as 'the British disease' and the UK has often been described as a 'class-ridden society' (Halsey 1995). In part because of British sociology's insularity (see Albrow 1989) and its obsessions with class and citizenship (Marshall 1950), the French sociologist Raymond Aron is reported to

have said: 'The trouble is that British sociology is essentially an attempt to make intellectual sense of the problems of the Labour Party' (Halsey 1985: 151). Not now, perhaps! However, it is certainly the case that the status relations of class have been more to the fore in British society than in most others. Class has perhaps been more institutionalised, visible and tangible in the UK than in other capitalist societies. So, it is unsurprising that class appeals to British sociologists as an issue of considerable intellectual importance, to government officials as a phenomenon of policy relevance, and to market researchers as an indicator of life style and taste. As a further consequence, each has produced distinct approaches to social class and its consequences, although only sociologists (and only in the last thirty years) have questioned how class arises in the first place and the nature of its dynamics. That is, in sociology there has been a turn away from a concentration on the merely distributional aspects of social stratification towards a concern for the relational ones (*cf.* Goldthorpe and Bevan 1977; Egidi and Schizzerotto 1996). Meanwhile, UK government statisticians, unaffected by developments in sociology, maintained and enhanced their official socio-economic classifications over the course of the twentieth century. Now, however, it has been decided to abandon the RGSC and to replace it with the NS-SEC, a measure whose basis derives from recent sociological research on the relational aspects of class. Thus, two British traditions of class research, the official and the sociological, have become united in the NS-SEC. What are these traditions and how did their unification emerge? In order to examine these questions, first we must consider each approach.

The official approaches

Registrar-General's Social Class

The RGSC, re-named in 1990 as *Social*

Class based on Occupation, rested on the assumption that society is a graded hierarchy of occupations ranked according to skill (see figure 1). The unit groups of the official occupational classification were allocated to social classes commensurate with the degree of expertise involved in carrying out the associated tasks of occupations within the groups, and the resulting categories were assumed to be homogeneous in these terms. In fact, the five basic social classes recognised by the Office of Population Censuses and Surveys (OPCS, now National Statistics, NS) were, from 1921 to 1971, an ordinal classification of occupations according to their reputed '*standing within the community*' (for more detail see Leete and Fox 1977 and Szreter 1984). In 1980, this definition was changed so that social class was equated instead with '*occupational skill*'. Unfortunately, as Brewer (1986) and many others have observed, OPCS did not explain the principles behind this reconceptualisation, so it is not clear how the earlier 'lifestyle and prestige' categories related to the newer ones of 'occupational skill'. However, as Prandy (1990) notes, skill has always been seen to have some part in the RGSC. As only about seven per cent of cases were assigned different class codes when the same data were coded according to both 1970 and 1980 procedures and then cross-classified, it seems that in practice the changes for allocating occupations to classes made little real difference. The process of developing the 1990 Standard Occupational Classification (OPCS 1991; Thomas and Elias 1989; Elias 1997) only slightly affected the allocation of occupations to classes, particularly for Classes IV and V (OPCS 1991).

However, these were by no means the only changes made to the RGSC after 1921. At every subsequent decennial Census changes were implemented both in the method of classifying occupations and in the allocation of particular occupations to social classes.

Figure 1 Social Class based on Occupation

The occupation groups included in each of these categories have been selected in such a way as to bring together, as far as possible, people with similar levels of occupational skill. In general, each occupation group is assigned as a whole to one or other social class and no account is taken of differences between individuals in the same occupation group, for example, differences in education.

I	Professional, etc occupations
II	Managerial and Technical occupations
III	Skilled occupations
(N)	Non-manual
(M)	Manual
IV	Partly skilled occupations
V	Unskilled occupations

For persons having the employment status of foreman or manager the following additional rules apply:

- (a) each occupation is given a basic social class;
- (b) persons of foreman status whose basic social class is IV or V are allocated to Social Class III;
- (c) persons of manager status are allocated to Social Class II with certain exceptions.

Since occupations were allocated to classes on the basis of judgements made by the Registrar-General's staff and various other experts whom they consulted, and not in accordance with any coherent body of social theory, the RGSC was rightly described by Marsh (1986a) as an intuitive or *a priori* scale. This is not to suggest that it made no assumptions about the structure of society and the nature of social stratification. In fact the RGSC embodied the now obsolete and discredited conceptual model of the nineteenth-century eugenicists; namely, that of society as a hierarchy of inherited natural abilities, these being reflected in the skill level of different occupations. Although the first published application of the class schema in 1913 was in relation to the interpretation of infant mortality statistics, the real inspiration for its construction came from the nineteenth-century debate about differential fertility, between hereditarian eugenicists on the one hand and environmentalists on the other. T.H.C. Stevenson, an environmentalist and advocate of interventionist public health measures, developed the RGSC in order to test and disprove these eugenicist theories.

To do this he had actually to measure fertility in the different occupational groups - and this is why occupation came to be used as the crucial indicator for the measurement and construction of social classes. Hence, eugenicist assumptions about society as a graded hierarchy of inherited natural abilities reflected in the skill level of occupations, remained embedded in the official, and most commonly used, measure of social class in Britain for 90 years (Szreter 1984, 1993).

Uses of the RGSC

As Fitzpatrick and Dollamore (1999) have noted, measuring and monitoring socio-economic differentials in mortality and other health inequalities in the UK has been a key part of the work of the office responsible for the registration of deaths since the establishment of the General Register Office (GRO) in 1837. The GRO has since been subsumed within the Office for National Statistics (ONS) and it is now ONS that carries on the tradition of reporting on health variations today. This role continues to be of major importance as

health inequalities are as much a public health issue today as they were over 150 years ago, when the GRO was established (e.g. Drever and Whitehead 1997).

The earliest analyses of mortality differences were undertaken by reference to occupation and industry. However, from the beginning of the twentieth century, the development of the RGSC gave a clearer framework for identifying and understanding health differentials within the population. It was demonstrated that there was a class gradient in health – in particular in mortality rates – and despite the creation of the National Health Service in 1948, class inequalities in health and life expectancy have persisted. Overall, those in ‘partly skilled’ and ‘unskilled’ occupations in RGSC classes IV and V have far higher mortality rates and lower life expectancy than those in professional and managerial occupations in Classes I and II.

These inequalities are of continuing concern. The UK Department of Health Green Paper, *Our Healthier Nation*, acknowledged that health inequalities in the 1990s were actually widening and that ‘the poorest in our society are hit harder than the well off by most of the major causes of death’. It also gave a firm commitment not only to improve the health of the population as a whole, but specifically ‘to improve the health of the worst off in society and to narrow the health gap’. This national pledge complements the aims of the European ‘Health For All’ Strategy, to which the UK fully subscribes. This made Equity in Health its first target - specifically that ‘by the Year 2000 the differences in health status between countries and between groups within countries should be reduced by at least 25 per cent by improving the level of health of disadvantaged nations and groups’.

Quantifying the absolute and

relative differences in peoples’ health within a population is thus a prerequisite for developing appropriate strategies to address them. Identifying and measuring health inequalities is essential for monitoring public health, for planning and targeting health care services and the distribution of resources, for identifying new and emerging health problems, for assisting in the discovery of causal factors, and for formulating and developing effective health service policies. In all these respects, the RGSC has played a key role.

However, dissatisfaction with the scheme has developed from a combination of theoretical, conceptual and technical grounds. This led some researchers (in epidemiology, for example) to seek other socio-economic indicators for their analyses (e.g. Osborn and Morris 1989; Goldblatt 1990). In sociology, where social class is such a crucial explanatory concept, alternative class and occupational scales (as discussed below) were derived on what were regarded as more satisfactory theoretical foundations.

The reasons why many researchers have sought alternatives are to be found in the now well-known limitations of the RGSC. Precisely because it had been so widely used for research, many problems with it came to light. Especially when we consider that it was created to describe an industrial society and economy, in the context of a nineteenth century debate between eugenicists and environmentalists, and in a time before serious theoretical social science had emerged in Britain, it is not surprising that the RGSC came to be considered inadequate by many academic researchers.

A plethora of articles and book chapters appeared calling attention to the RGSC’s problems. Many writers criticised it because it had no coherent theoretical basis.

Figure 2 Socio-Economic Groups

Classification by Socio-economic Groups was introduced in 1951 and extensively amended in 1961. The classification aims to bring together people with jobs of similar social and economic status. The allocation of occupied persons to Socio-economic Groups is determined by considering their employment status and occupation (and industry, though for practical purposes no direct reference is made since it is possible in Great Britain to use classification by occupation as a means of distinguishing effectively those engaged in agriculture).

The Socio-economic Groups are:

- (1.1) Employers in industry, commerce, etc (large establishments)
- (1.2) Managers in central and local government, industry, commerce, etc (large establishments)
- (2.1) Employers in industry, commerce, etc (small establishments)
- (2.2) Managers in industry, commerce, etc (small establishments)
- (3) Professional workers - self-employed
- (4) Professional workers - employees
- (5.1) Intermediate non-manual workers - ancillary works and artists
- (5.2) Intermediate non-manual workers - foremen and supervisors non-manual
- (6) Junior non-manual workers
- (7) Personal service workers
- (8) Foremen and supervisors - manual
- (9) Skilled manual workers
- (10) Semi-skilled manual workers
- (11) Unskilled manual workers
- (12) Own account workers (other than professional)
- (13) Farmers - employers and managers
- (14) Farmers - own account
- (15) Agricultural workers
- (16) Members of armed forces
- (17) Inadequately described and not stated occupations

As Thomas (1990) conceded, even the champions of its empirical usefulness agreed on this. Others, as we have seen, have claimed that what conceptual basis it does have - a hierarchy in relation to social standing or occupational skill - in fact reflects an outmoded nineteenth-century view of social structure (Szreter 1984). Even when judged in its own terms, questions were raised regarding its validity and reliability. For example, Bland (1979) provided cogent evidence that any claim that the RGSC related to social standing could not be justified. Above all, perhaps, there was an increasing recognition that RGSC described an industrial society and economy that was fast disappearing and in which the old manual/non-manual divide was of less relevance. *Inter alia*, this meant that it was increasingly difficult to maintain and adapt the RGSC to new realities.³

Socio-economic Groups

However, RGSC was not the only UK government SEC. In 1951 a new classification was introduced alongside RGSC, Socio-economic Groups (SEG). Socio-economic Groups were much less discussed in the literature than RGSC, yet it was a more social scientific measure, one that spoke theory without knowing it. As can be seen from figure 2, SEG had an operational requirement to take into account employment status and size of employing organization as well as occupation. In that sense it came closer than RGSC to sociological measures of social class. When we note that SEG was devised by a social scientist with an interest in social mobility, David Glass, we can see why this might be the case.

The problems that arose with SEG were somewhat different from those of RGSC. To begin with, there was no explanation regarding its conceptual basis. Reference to it being ‘a measure of social and economic status’ was hardly illuminating. Its seventeen groups could be collapsed to produce something like the Goldthorpe class schema on which we have based the NS-SEC (see below). However, the lack of a conceptual rationale necessarily meant that there could be no clear rules to guide researchers on how SEG might best be collapsed for analysis, hence the many, varied and often incoherent ways in which this was achieved. Nor did the SEG collapse into the RGSC classes. They were different measures. As with RGSC, SEG also relied on outmoded distinctions - those of skill and the manual/non-manual divide. Partly as a consequence of this, it reflected women’s position in the social structure very inadequately, with the heterogeneous SEGs 6 and 7 being particularly responsible for this.

The sociological approaches

In the light of the varying criticisms of the RGSC and SEG, but also for their own reasons, sociologists in particular have created alternative class and occupational scales that claim to be superior in both conception and use. We deal with each in turn.

*The Goldthorpe Class schema*⁴

The best-known and most widely used sociological class schema is that of Goldthorpe and his associates (see figure 3). While operationally similar to the RGSC and SEG (i.e. requiring information on occupation and employment status and in some cases size of establishment in order to allocate people to classes) class analysts regard the Goldthorpe schema as having a far more satisfactory theoretical and conceptual basis. The Goldthorpe schema was originally conceived as bringing

together into classes individuals who shared similar work and market situations (see below and see Lockwood 1958/1989; Goldthorpe 1980). More recently Goldthorpe has modified this conception (Erikson and Goldthorpe 1992). He and Erikson now prefer the concept of *employment relations* in the context of occupations in order to emphasise the idea of a class structure of ‘empty places’ that individuals fill (Erikson and Goldthorpe 1992; Rose *et al* 2001). The Goldthorpe schema has been profitably used in many ways: international studies of social mobility (Erikson and Goldthorpe 1992); a major study of class in Britain (Marshall *et al* 1988); international studies of social justice (Marshall *et al* 1997) and of health inequalities (Kunst *et al* 1998a and b); and, in revised form, in recent British Election Studies (e.g. Heath *et al* 1985). In addition, a series of studies have endorsed the basic validity of the Goldthorpe schema (e.g. Evans 1992, 1996; Birkelund *et al* 1996; O’Reilly and Rose 1998; Evans and Mills 1998 and 2000).

The primary distinctions made in Goldthorpe’s approach are those between: (1) *employers*, who buy the labour of others and assume some degree of authority and control over them; (2) *self employed (or ‘own account’) workers* who neither buy labour nor sell their own to an employer; and (3) *employees*, who sell their labour to employers and thus place themselves under the authority of their employer. Thus any class schema based on employment relations, i.e. that defines positions in terms of *social relationships at work*, must include these three basic class positions. Why these basic positions exist should be obvious for any society based on the institutions of private property and a labour market. However, we can immediately note that Goldthorpe’s distinctions separately identify the self-employed, a category that was egregiously absent from RGSC.

Figure 3 The Goldthorpe Classes (seven-category UK version)

I	Service class (higher grade)
II	Service class (lower grade)
III	Routine non-manual employees
IV	Small proprietors
V	Lower grade technicians and supervisors
VI	Skilled manual workers
VII	Semi- and unskilled manual workers

Employees account for anything up to 90% of the active working population. Clearly, they do not all hold similar class positions. That is, employers do not treat all employees alike in respect of their relations with them as defined by the explicit and implicit terms of employment contracts. There is differentiation in employers' relations with employees. Thus, crucial to Goldthorpe's conception is a further level of distinction within the employment relations of employees. To observe that there are quite diverse employment relations and conditions among employees is another way of saying that they occupy different *labour market situations* and *work situations* (Lockwood 1958/1989) as expressed through employment contracts. Labour market situation equates to issues such as source of income, economic security and prospects of economic advancement. Work situation refers primarily to location in systems of authority and control at work, although degree of autonomy at work is a secondary aspect. Hence, in this conceptual construction, variation in employment contracts provides the main basis for establishing its construct validity (see Rose and O'Reilly 1998: Appendix 10). That is, 'membership of the classes it distinguishes, as well as having differing sources and levels of income, also have differing degrees of stability of both income and employment and differing expectations as to their economic futures that together

condition both their life chances and many aspects of their attitudes and patterns of action' (Goldthorpe 2000a: 1578-9). The Goldthorpe schema thus distinguishes broadly different *positions* (*not* persons) as defined by social relationships in the work place – i.e. by how employees are regulated by employers through employment contracts (Goldthorpe 2000b). Three forms of employment regulation are distinguished.

First, there is the '*service relationship*' in which the employee renders 'service' to the employer in return for 'compensation' in terms of both immediate rewards (e.g. salary) and long-term or prospective benefits (e.g. assurances of security and career opportunities). This relationship 'is likely to be found where it is required of employees that they exercise *delegated authority* or *specialized knowledge and expertise* in the interests of their employing organization' (Erikson and Goldthorpe 1992: 42 – emphasis in the original). Hence, within this relationship, employers must allow a certain amount of autonomy and discretion to the employee. Hence, also, employees must be encouraged to make a moral commitment to the employing organization. The service relationship is designed to create and sustain this type of commitment. The service relationship typifies higher professional, senior administrative and

senior management occupations. This is where 'the largest responsibilities in decision-making attach and which will in turn offer the fullest range of beneficial conditions associated with the service relationship' (*ibid*: 43). However, the service relationship is also found in a more restricted or attenuated form in the lower professional and managerial occupations, as well as in higher technical occupations.

In contrast with the service relationship, the '*labour contract*' entails a relatively short-term exchange of money for effort. Employees are closely supervised and give discrete amounts of labour in return for a wage (or nowadays even a 'salary' in the limited sense of a direct payment to a bank account). Payment is calculated on or related to the amount of work done or required or by the actual amount of time worked. The labour contract is typical of 'working class' occupations, but again is found in attenuated forms, for example for supervisors and 'skilled' workers. That is, these occupations have slightly more favourable employment terms than others in the 'working class' where external controls can be fully effective.

Intermediate or *mixed* forms of employment regulation combine aspects from both the service relationship and the labour contract. These are typical for clerical occupations, as well as for some technical, sales and service occupations. They are especially prevalent in large, bureaucratic organizations.

The contrast between the service relationship and the labour contract is *ideal-typical*. In the real world, actual employment relations may only approximate these types. Goldthorpe (2000b) discusses the reasons why these forms of employment regulation exist and are common across countries with developed market economies. Briefly, two factors are implicated in determining the form of employment regulation: (1) the

degree to which work may be monitored by the employer (external controls) and (2) the specificity of human capital used by employees in their jobs. Thus, where employers have difficulty in monitoring the work of employees and employee human capital is high, a service relationship will exist. Where work is easily monitored and controlled and where human capital of employees is low, a labour contract will exist.

Erikson and Goldthorpe (1992: 42) have noted that the distinction between the service relationship and the labour contract is similar to some conventional distinctions made in several European countries. France, of course, distinguishes between *cadres* or *employés* and *ouvriers*; Germany between *Beamte* or *Angestellte* and *Arbeiter*; and the UK between *staff* and *workers*.

The Goldthorpe schema also separately identifies categories for the other two basic class positions: employers and the self-employed. Employers are divided between 'large' and 'small'. The distinction here is between employers who delegate at least some managerial tasks ('large') and those who tend to undertake these tasks themselves ('small'). The former occupations are allocated to Class I and the latter to Class IV. Similarly, because of their different market and work situations, Goldthorpe distinguishes between professional and non-professional small employers, in Classes I and IV respectively. The latter consideration also applies to the self-employed.

Occupational scales

Apart from Goldthorpe's class schema, a number of occupational scales have also been derived by British academics for use in studies of social inequality. These are the Hall-Jones scale, the Hope-Goldthorpe scale and the Cambridge scale.

The Hall-Jones scale (H-J - Hall and Jones 1950) graded occupations according to their prestige and was used by Glass (1954) in his pioneering study of social mobility. While this scale was used in some important studies, for example the Affluent Worker project (Goldthorpe *et al* 1969) and Townsend's (1979) study of poverty, there were never any clear guidelines published which showed how occupations were coded to the scale by Glass; and the degree to which different uses of the scale were truly comparable is uncertain.

The Hope-Goldthorpe scale (H-G - Goldthorpe and Hope 1974) was consciously produced to remedy the validity and reliability problems of the H-J scale and was the first step in the Oxford mobility project before Goldthorpe abandoned it in favour of his class schema. The H-G scale is derived from a survey of the social standing of occupations so that jobs are ranked in terms of their social desirability. In that sense, H-G is not a prestige scale but a cognitive judgement about the desirability of different occupations. As Goldthorpe (1981: 9) has noted, the H-G scale can be regarded as a synthetic one which projects occupations on to the one dimension of 'general desirability', but with respect to a range of attributes whose selection and weighting is effectively a matter of popular opinion.

Whereas the H-G scale is an evaluation of desirability, the Cambridge Scale (CS - Stewart *et al* 1980; Prandy 1990) is an associative one. Based on the scaling of survey respondents' occupational friendship and marriage scores, the CS is regarded by its originators as a broad measure of social stratification and social inequality. Ultimately the scale measures the market outcomes of different jobs and the lifestyle associated with them. It is not an attempt to measure the social structure and the way this creates different market capacities in different sections of the population. Indeed, the theoretical position

of the authors of the CS is one that rejects class analysis on the grounds that it is a static approach to what are fundamentally problems relating to social dynamics. Nor is CS a status scale. It is a measure of lifestyle determined by social experience and, ultimately therefore, significant social processes. It is designed to unite key features of both the social and the economic; and it raises questions about any attempt to analyse social inequality in terms of categorical measures.

Competing claims: the boat race and variable races

Gershuny (2000) has likened the considerable, and on-going, dispute between the proponents of the Cambridge Scale and the supporters of the Goldthorpe class schema to the annual Oxford versus Cambridge boat race on the Thames. Quite rightly, he is wary of entering the turbulent waters of this particular debate but, as we shall see, the constructors of the NS-SEC have not had that luxury.

In a series of articles over the last decade the authors of the Cambridge Scale have argued against the theoretical basis and empirical usefulness of the Goldthorpe class schema and its offspring (Blackburn and Prandy 1997; Prandy 1990, 1998a, 1999; Prandy and Blackburn 1997). The programme of validating the Goldthorpe schema undertaken by Evans and Mills (Evans 1992, 1996; Evans and Mills 1998, 2000) has attracted particular critical attention (*cf.* Prandy and Blackburn 1997). In response, this invoked a detailed critique of the Cambridge Scale from Evans (1998). Neither has the NS-SEC escaped the attention of the Cambridge scholars, with pointed critiques to be found in Blackburn (1998) and Prandy (1998b) followed by a response from Rose (1998).

The differences between the two camps could hardly be greater. Other than their common interest in social mobility and

the consequences of social stratification for individuals, there is hardly any agreement whether theoretical, conceptual, or operational. At the most abstract level, the Goldthorpe schema draws on the idea that *one* of the most important structuring characteristics of modern societies is given by individuals' occupational positions within the social relationships of employment (Goldthorpe 1997, 2000a and b). This approach entails the *a priori* definition of classes that exist independently of individuals and then the assignment of individuals, through their occupation and employment status, to these 'empty spaces'. Because of a lack of data relating to employment relations across all occupations, initial construction of the Goldthorpe schema invariably involved expert judgements in assigning occupations to particular classes. However, these judgements have been subjected to many criterion validation studies that have sought to investigate whether or not the schema actually measures what it purports to measure (Evans 1992, 1996; Birkelund *et al* 1996; Evans and Mills 1998, 2000; Rose and O'Reilly 1998: Appendix 10).

This deductive method stands in contrast to the inductive nature of the Cambridge scale. The authors of the CS go to some lengths to distance themselves from any theoretical or *a priori* assumptions and any theoretical basis for the scale appears to rest on 'the reasoning that incumbents of occupations that are socially similar would tend to interact more than incumbents of those that are dissimilar' (Prandy 1990: 630). From a variety of data sources (see Prandy 1990; Evans 1998) the occupations of friends and spouses are scaled and found to be arranged along a single dimension. The authors assert that the scale actually measures 'stratification arrangements' or 'generalised advantage' (Prandy 1990: 635) and more recently it has been compared with Bourdieu's idea of the volume of global capital (Prandy 1999).

Criticisms of the CS tend to be based on the lack of theoretical justification for friendship choices as a primary method of structuring society and why this should be so (Evans 1998) and also to the lack of any criterion validation work due to the inductive nature of the CS's construction. Prandy (1998b) and Blackburn (1998) view the separation of the economic and social dimensions of social stratification embedded in the Goldthorpe schemas as fundamentally flawed. Along with others, they have produced studies that provide evidence of stronger associations between the outcomes of interest and the CS over that of other classifications. This has simply led to further disagreements over measurement issues.

Thus, since the late 1990s a virtual cottage industry has been established surrounding the assessment of the competing claims of various social classifications (and other measures of socio-economic advantage such as car ownership and housing tenure) and how they relate to the outcomes of interest in each case (e.g. Bartley *et al*, 1999; Chandola, 1998, 2000 – see Rose and Pevalin, 2000 for a reply - Prandy, 1999; Sacker *et al*, 2000). Breen and Goldthorpe (1999: 7) have characterised this type of assessment, using independent variables with different metrics, as a 'variable race'. They have noted that 'assessing the relative importance of independent variables, whether in a regression context or otherwise, is a much more complex and difficult matter than has often been supposed', especially when the comparisons are between categorical and continuous variables. Whatever the relative strengths of the associations and the care with which they are determined, the fundamental point remains that explaining variance in outcomes sheds little, if any, light on the validity of any schema or scale in terms of what it claims to measure. This can only be achieved through theoretical reasoning and criterion validity exercises (see also Evans, 1998; Rose, 1998).

Naturally, there have been many other conceptual and methodological disputes between sociologists in the UK surrounding and arising from the issues discussed in this section. In particular the continuing relevance of class analysis has been challenged. Since these are not exclusively British debates, we shall not address them here, but for UK perspectives readers are referred to the work of Pahl (1989 and 1993), Goldthorpe and Marshall (1992), Savage *et al* (1992), Butler and Savage (1995), Lee and Turner (1996), Scott (1996), Marshall (1997: Ch. 1), Halpin (1997 and 1999), Prandy (1998b), Blackburn (1998), Crompton (1998), Rose (1998) and Crompton *et al* (2000). Similarly, there is not space in this paper to address the recent debates on ‘meritocracy’ and social mobility, initially stimulated by the work of Saunders (1996). This has led to vigorous responses from Marshall *et al* (1997), Breen and Goldthorpe (1999) and Savage and Egerton (1997).

We have now discussed the two main traditions of socio-economic classification in the UK. We can now proceed to a discussion of the NS-SEC, the new UK government SEC that replaced both RGSC and SEG in April 2001. The intellectual origin of the NS-SEC is the Goldthorpe schema. The review that led to its creation was established by ONS as a result of recognition of the shortcomings of RGSC and SEG as already described above.

The National Statistics Socio-economic Classification

The full story of the development of the NS-SEC by social scientists under the *aegis* of the UK Economic and Social Research Council (ESRC) has been told elsewhere (Rose and O’Reilly 1997, 1998; Rose and Pevalin 2001 forthcoming; Rose and Pevalin with O’Reilly 2001 forthcoming). Here we need only to relate NS-SEC to Goldthorpe’s schema and describe its characteristics.

Choosing between the alternatives

When in 1994 ONS commissioned ESRC to undertake a review of its classifications, both the Goldthorpe class schema and the CS scale represented potential alternative measures to replace the RGSC and SEG. However, with the exceptions of Marsh (1986b), Marshall *et al* (1988), Marshall (1988), and Prandy (1990), there had been little systematic, comparative evaluation of these various classifications. Marshall and his colleagues followed other sociological class analysts in regarding the Goldthorpe schema as superior to RGSC. As we have seen, Prandy and his colleagues had compared the Goldthorpe schema unfavourably with the CS. Marsh (1986b) undertook a limited and therefore somewhat inconclusive evaluation of RGSC, Goldthorpe, H-G and CS. Nevertheless the social classifications’ review team noted that occupational scales and class schemata might be regarded as serving different purposes. Scales were seen as most appropriate where social stratification is being considered as a dependent variable, as in studies of occupational attainment. However, where we are concerned with stratification as an independent variable, class measures were deemed more useful. As Goldthorpe (1981: 11) argued ‘a measure of class will be most apt where the link to the dependent variable is believed theoretically to be through the individual’s position in relations of production; a measure of status...where the link is believed to be through positions in relations of consumption or...lifestyle’. This was the perspective taken by the review team, hence the choice of a new class measure to replace RGSC and SEG.

Conception

The decision to adopt (but adapt through thorough *ex ante* validation) the Goldthorpe schema in order to create the NS-SEC was made precisely because the former is widely

used and accepted and is conceptually clear. Moreover, it has been reasonably validated *ex post facto* both in criterion terms as a measure and (importantly from the viewpoint of any proposed government SEC) in construct terms as a good predictor of health and educational outcomes. In terms of its conceptual basis, therefore, the NS-SEC follows that of Goldthorpe's schema as already described. As we also noted earlier, SEG spoke this theory without knowing it and was therefore already amenable to this conception, capturing the essential elements of a truly social scientific SEC quite well. Thus the NS-SEC attempts to make explicit what was latent in SEG by reference to employment relations' characteristics that are widely recognised as significant in the literature (such as mode of payment, career prospects and autonomy).

The importance of conceptual approaches

It might be asked why we were so concerned to stress conceptual issues. We believe that those who use SECs in research, even the more pragmatic users, should be concerned to know what it is that government classifications are supposed to be measuring so that they can (a) use them correctly; (b) improve their explanation of results; and (c) investigate whether the classifications are valid. How can we say, for example, what the mortality patterns revealed by RGSC *mean*, if we are not clear what it is measuring? This is no academic quibble. The lack of a clear conceptual rationale has important consequences in limiting the scope for influencing policy. If we do not understand the causal pathways which lead to the regular patterns revealed by research (that is, the processes which generate empirical regularities) then it is not apparent how recommendations can be provided on relevant policy actions to address these persistent variations. Examples include the difficulties encountered in setting targets for reducing health variations that can be linked to achievable policies and, more

generally, in developing policies to target deprived groups. Of course, we are not suggesting that having a clear conceptual rationale for a social classification removes all the barriers to explaining what social differences mean. Not everything can be explained by what a SEC measures directly - employment is not the only determinant of life chances. However, a properly constructed and validated SEC removes at least one barrier to explanation. Moreover, some of the dissatisfaction with the old government classifications was directly related to the failure to provide a clear rationale for them and all that flows from this conceptual void, such as how and in what circumstances to use and maintain particular classifications and for what purposes.

Operationalisation

Although the ESRC review team adopted the Goldthorpe schema as its model, it did not accept its current instantiation. Unlike Goldthorpe, we were able to validate the schema *ex ante*. Thus, the NS-SEC was created by analyzing employment relations data, especially collected on the UK Labour Force Survey⁵, and applied to the unit groups of the UK Standard Occupational Classification (OPCS 1991 for the interim NS-SEC – see Rose and O'Reilly 1998; ONS 2000 for the final version – see Rose and Pevalin with O'Reilly 2001 forthcoming). Thus each NS-SEC class brings together combinations of occupational groups and employment statuses that share similar employment relations, but are different in these terms from occupational group/employment status combinations in each of the other classes (*cf.* Bailey 1994). However, the classification is operationally created in exactly the same way as RGSC and SEG – through information on occupational groups, employment statuses and establishment size organised into a matrix table (see www.statistics.gov.uk/nsbase/methods_quality/ns_sec).

Figure 4 offers a diagrammatic representation of the way in which the NS-SEC is derived. As with the Goldthorpe schema, the primary distinction made by the NS-SEC is between employers, employees and the self-employed. To these we added a fourth basic position for those who are involuntarily excluded from employment relations altogether. However, such a classification is not exhaustive, as figure 4 shows.

Employers and the self-employed

Modern corporate forms of property mean that most employers are organizations rather than individuals. The individual employers who do remain are largely 'small' employers (L8 in figure 5), but a SEC needs to recognise both them and the tiny proportion (0.1%) of larger individual employers (L1), few of whom today are 'heroic' capitalists. Similarly the self-employed without employees (L9) occupy a distinctive position and must be kept separate from employees.

Employees

The category of employees has both grown and become more differentiated within bureaucratic enterprises. As we have noted, employees occupy a very wide range of market and work situations, i.e. their employment relations and conditions are sufficiently variable that we can make meaningful distinctions between them in class terms. In terms of these distinctions, we have followed the crucial line of division made by Goldthorpe, and depicted in figure 4, between employment relations and conditions based on a *service relationship* and those based on a *labour contract*. The latter typifies positions in the working class (L12 and L13). The former typifies managerial, professional and administrative positions (the service class or '*salariat*'), notably in categories L2 and L3. In practice, of course, members of the lower service class (L4, L5 and L6) have

less of the full range of conditions associated with the service relationship; and some members of the working class have a more relaxed form of the labour contract (L10 and L11). In addition, there are intermediate groups - routine clerical workers, for example - who have a mixed form of employment regulation between the service relationship and the labour contract (as in L7).

The Structure of the NS-SEC

The NS-SEC has a nested structure, the operational level collapsing into various analytic variables. The operational categories and sub-categories of the classification, depicted in figure 5, have two purposes. First, they are the principal means by which we translate between both RGSC and SEG and the NS-SEC. Second, it is designed to offer researchers maximum flexibility in terms of different possible and allowable collapses (within the underlying conceptual model of employment relations) to nine, eight, seven, six, five and three category analytic class variables. The flexibility of the model even allows analysts to use the categories of the operational version to look 'inside' the classes of the analytic versions.

The operational categories (indicated in bold in figure 5) represent a variety of labour market positions and employment statuses which can be collapsed into socio-economic classes as defined by an employment relations approach (see below; and see also Goldthorpe 1997). L14 is an optional category. L15, L16 and L17 are the residual categories that are excluded when the classification is collapsed into classes.

Figure 4 The Conceptual Derivation of the NS-SEC

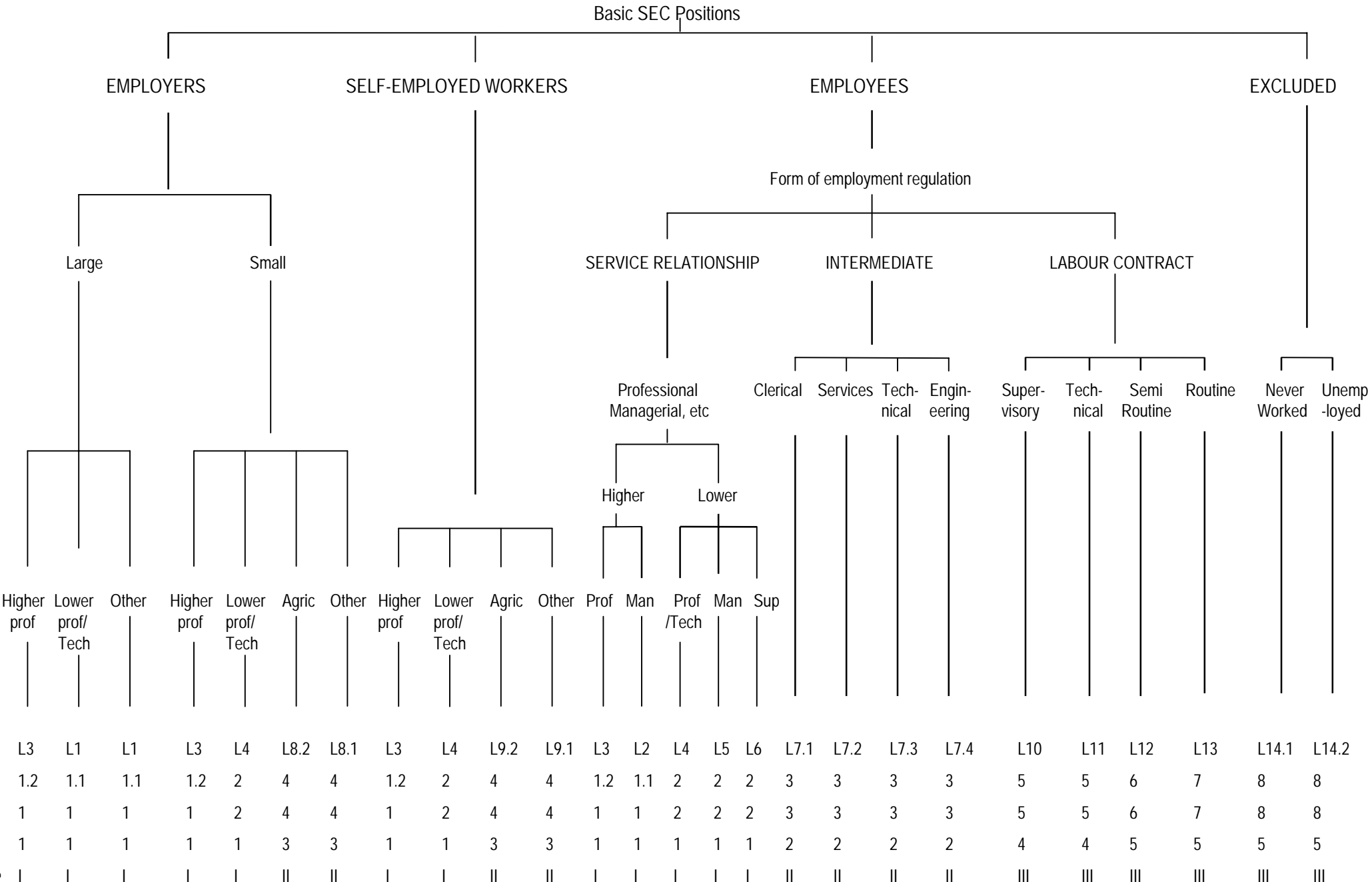


Figure 5 Operational Categories of the National Statistics Socio-economic Classification

L1	Employers in Large Establishments	L10	Lower Supervisory Occupations
L2	Higher Managerial Occupations	L11	Lower Technical Occupations
L3	Higher Professional Occupations	L11.1	Lower technical craft occupations
L3.1	‘Traditional’ employees	L11.2	Lower technical process operative occupations
L3.2	‘New’ employees	L12	Semi-routine Occupations
L3.3	‘Traditional’ self-employed	L12.1	Semi-routine sales occupations
L3.4	‘New’ self-employed	L12.2	Semi-routine service occupations
L4	Lower Professional and Higher Technical Occupations	L12.3	Semi-routine technical occupations
L4.1	‘Traditional’ employees	L12.4	Semi-routine operative occupations
L4.2	‘New’ employees	L12.5	Semi-routine agricultural occupations
L4.3	‘Traditional’ self-employed	L12.6	Semi-routine clerical occupations
L4.4	‘New’ self-employed	L12.7	Semi-routine childcare occupations
L5	Lower Managerial Occupations	L13	Routine Occupations
L6	Higher Supervisory Occupations	L13.1	Routine sales and service occupations
L7	Intermediate Occupations	L13.2	Routine production occupations
L7.1	Intermediate clerical and administrative occupations	L13.3	Routine technical occupations
L7.2	Intermediate service occupations	L13.4	Routine operative occupations
L7.3	Intermediate technical and auxiliary occupations	L13.5	Routine agricultural occupations
L7.4	Intermediate engineering occupations	L14	Never Worked and Long-term Unemployed
L8	Employers in Small Establishments	L14.1	Never worked
L8.1	Employers in small establishments in industry, commerce, services, etc.	L14.2	Long-term unemployed
L8.2	Employers in small establishments in agriculture	L15	Full-time Students
L9	Own Account Workers	L16	Occupations not stated or inadequately described
L9.1	Own account workers (non-professional)	L17	Not classifiable for other reasons
L9.2	Own account workers in agriculture		

All the sub-categories are component codes required for bridging and continuity to RGSC and SEG rather than necessary sub-categories in terms of the conceptual base of the NS-SEC. For example, L3 is sub-divided between positions which were recognised by both SEG and RGSC as professional - 'traditional professionals' - and those (for example, computer analysts) which now appear to be professional positions on the basis of research conducted to produce the NS-SEC - 'new professionals'.

Analytic versions of the NS-SEC

The operational categories of the classification discussed in the preceding paragraphs may be collapsed into a number of different analytic variables. The principal one of these variables - the official NS-SEC as adopted by ONS - is depicted in figure 6. It contains eight basic categories, although Class 1 may be sub-divided if analysts so choose. However, Class 8 is not easily operationalised in all government datasets and so is not always part of the official classification.

Issues in collapsing the NS-SEC

There are a number of issues that must be considered in relating the underlying concept to the empirical version of the classification:

(1) *Employers in large establishments (L1)* are combined with higher managerial occupations (L2) in Class 1.1. If it were possible to overcome the difficulties of operationalising the distinction between legal forms of incorporation, partnership, etc. in a meaningful way, there would be no obstacle in principle to elaborating the classification so as to remove the anomalies caused by including employers in a class which is largely composed of employees. Nevertheless, the small numbers in L1 make it unlikely that it could ever be

separately analysed as a class in survey research.

(2) *Higher managerial and higher professional occupations.* While it would be normal within an employment relations perspective to regard Class 1 as a single class for analytic purposes, we have preserved a distinction made by both RGSC and SEG between higher managerial positions (1.1) and higher professional positions (1.2) so that those who wish to analyse these two elements of Class 1 separately may do so.

(3) *Small employers (L8).* Other than for higher and lower professional occupations, employers in small establishments, who generally have only one or two employees, are combined with own account workers (L9) into a single non-professional self-employed class.

(4) *Employees in semi-routine and routine occupations.* To date, employment relations approaches have made no distinction between what we have called semi- and routine occupations (or what have been conventionally known as 'semi-skilled' and 'unskilled' occupations) because a basic labour contract is assumed to exist for both positions. Hence, it would be normal to regard these positions as forming a unified class. However, RGSC did distinguish 'partly-skilled' occupations (Class IV) from 'unskilled' occupations (Class V), and LFS data on employment relations lend some empirical support to a similar distinction. Hence we regard L12 and L13 as being separate categories which collapse into classes 6 and 7 respectively (although those who, like Goldthorpe, wish to ignore this distinction will no doubt treat Classes 6 and 7 together for analytic purposes).

Figure 6 National Statistics Socio-economic Classification

1	Higher managerial and professional occupations	11.1%*
	1.1 Large employers and higher managerial occupations	(4.3%)
	1.2 Higher professional occupations	(6.8%)
2	Lower managerial and professional occupations	23.5%
3	Intermediate occupations	14.0%
4	Small employers and own account workers	9.9%
5	Lower supervisory and technical occupations	9.8%
6	<i>Semi-routine occupations</i>	18.6%
7	Routine occupations	12.7%
8	Never worked and long-term unemployed	-

* Data: Those currently employed Labour Force Survey Winter Quarter 1996/97 (excluding Northern Ireland) N=63,233 (may not add to 100% due to rounding)

So how many 'classes' are there?

An employment relations approach does not assume that there are x and only x number of classes. Rather it argues that the number of classes to be recognised empirically depends upon the analytic purposes at hand. The NS-SEC is thus to be regarded as an *instrument du travail*. Hence, within the conceptual model, it is possible to have a number of analytic variables. As an explicit demonstration of the flexibility of the NS-SEC, the relationship between the operational categories and the various analytic class variables is given in figure 7.

Category names

It will be noted that none of the categories of any of the versions of the NS-SEC makes reference to either 'skill' or the 'manual/non-manual divide'. This is quite deliberate. The notion of skill has no part in the conception of the NS-SEC; to use category names which refer to skill would therefore be inconsistent with an employment relations approach. As for the manual/non-manual divide, changes in the nature and structure of both industry and

occupations has rendered this distinction both outmoded and misleading. Although it might be argued that no great importance needs to be attached to category names or class labels, nevertheless conceptually neither the degree of 'manuality' of the work involved nor its skill level are considerations that should determine the allocation of occupation-by-employment status units to classes. And empirically the relationship between the manual/non-manual divide and the basic positions distinguished by an employment relations approach is less than is generally perceived. For example, Class 6 includes many non-manual service occupations. Consequently what were previously referred to by SEG as 'intermediate', 'junior' or 'skilled' non-manual occupations now become, respectively, 'lower professional occupations' or 'higher supervisory occupations', and 'intermediate occupations'. The RGSC 'skilled', 'partly skilled' and 'unskilled' manual occupations become respectively (employees in) 'lower technical', 'semi-routine' and 'routine' occupations.

Figure 7 NS-SEC Operational Categories and their Relation to the Analytic Class Variables

<i>Operational categories</i>		<i>Analytic class variables</i>					
		<i>Nine categories</i>	<i>Eight categories</i>	<i>Five categories</i>	<i>Three categories</i>		
L1	Employers in Large Establishments	1.1	Large employers and higher managerial occupations	1	Higher managerial and professional occupations	1	Managerial and professional occupations
L2	Higher Managerial Occupations						
L3	Higher Professional Occupations	1.2	Higher professional occupations				
L4	Lower Professional and Higher Technical Occupations	2	Lower managerial and professional occupations	2	Lower managerial and professional occupations		
L5	Lower Managerial Occupations						
L6	Higher Supervisory Occupations						
L7	Intermediate Occupations	3	Intermediate occupations	3	Intermediate occupations	2	Intermediate occupations
L8	Employers in Small Establishments	4	Small employers and own account workers	4	Small employers and own account workers		
L9	Own Account Workers						
L10	Lower Supervisory Occupations	5	Lower supervisory and technical occupations	5	Lower supervisory and technical occupations	4	Lower supervisory and technical occupations
L11	Lower Technical Occupations						
L12	Semi-routine Occupations	6	<i>Semi-routine occupations</i>	6	<i>Semi-routine occupations</i>		
L13	Routine Occupations	7	Routine occupations	7	Routine occupations	5	<i>Semi-routine and routine occupations</i>
L14	Never Worked and Long-term Unemployed	8	Never worked and long-term unemployed	8	Never worked and long-term unemployed		

Measurement Issues

In measurement terms, the NS-SEC is nominal or categorical. Some, as we have seen, view this as a disadvantage, preferring continuous or ordered scales. However, because it is based on social relations, the NS-SEC classes are not *strictu sensu* hierarchically ordered in a unilinear way. This is why we must collapse the operational version in the manner indicated. Of course, some class categories *are* superordinate with respect to others, for example higher managerial occupations *vis-à-vis* lower managerial occupations. However, we cannot wholly order a schema such as NS-SEC. We do not attempt to describe society as a layered model, but *via* more subtle, relational concepts. The NS-SEC distinguishes more and less advantaged or privileged forms of employment relations, but both the employment status aspects of the classification and the different mixes of employment relations in each class mean that the NS-SEC classes cannot be arranged along a single continuum.

Finally, we should note that the NS-SEC has been subject to a full range of criterion and construct validation analyses (Rose and O'Reilly 1998; Rose and Pevalin 2001). It has been shown both to be a good measure of employment relations and a sound predictor of life chances.

Developing comparative socio-economic classifications

As part of the European Union's statistical harmonisation programme, it has been suggested that an EU SEC should be created. We were invited to undertake some preliminary work on this (see Rose *et al* 2001). In this final section we briefly examine how classifications such as the NS-SEC and CSP might offer a basis for the development of a harmonised SEC.

Of the nine EU member states that have a national SEC, Grais (1999) notes

two contrasting approaches to the derivation of national classifications, what he calls the 'theoretical' and the 'intuitive/empirical'. The latter are more common. Only the UK (for the NS-SEC), the Netherlands and Sweden have adopted a 'theoretical' approach, although we should note that the French CSP could be said to be 'theoretical', although of a more inductive type. Nevertheless, the real difference between the French approach and those of the UK, Netherlands and Sweden (all of which are based on or closely related to the Erikson-Goldthorpe-Portocarero (EGP) schema) is perhaps best summed up as a difference between *emic* and *etic* approaches to social science.⁶

We would agree with Brauns (1999), however, when she argues that the basic principles of CSP and Goldthorpe's approach are relatively similar. It was for this reason that she and her colleagues were able to construct the Goldthorpe schema based on French data. Therefore, we should be careful not to over-emphasise the differences between national approaches. What should be obvious are the implied similarities of the classifications themselves in terms of categories and meanings. Very similar variables enter into the various SECs – occupation, activity status, status in employment, enterprise size, agricultural and non-agricultural sectors – and the categories of the theoretically based SECs are generally interpreted to have meaning as 'social' units. All the SECs, except for the Spanish, are what Grais refers to as 'multi-dimensional'; and also they are 'partially ordered' classifications. Nearly all have the flexibility previously referred to, with more and less aggregated versions.

Thus, if we examine Grais' analysis, it is clear that:

1. all SECs distinguish both occupation and activity status (or what Grais refers to as 'job' or 'occupational' status), i.e.
 - (a) persons in employment;
 - (b) the

unemployed; and (c) the inactive;

2. for those in employment, SECs distinguish status in employment: (a) employers; (b) the self-employed; and (c) employees or ‘wage earners’ (and some SECs also distinguish family workers);
3. employers are further distinguished in relation to size of enterprise, farm/non-farm enterprise and occupation;
4. employees or wage earners are further distinguished by labour market position (managers, supervisors, and employees) and managers are further distinguished by size of enterprise or management level;
5. the inactive are generally classified according to last main job, although in France, Denmark and Austria specific categories of inactive persons such as the retired are included in the most aggregated version of the SEC. Sometimes the inactive are classified according to the position of a household reference person;
6. all states except France and Ireland have a household version of their SEC;
7. all states except Spain and Austria include the whole adult population, although not always at the most aggregated level.

Thus, there are many common basic features to national SECs. To be sure, details differ on issues such as size cut-off for enterprises, definition of household reference persons and the precise treatment of the inactive. However, the principles, whether implicit or explicit, appear to be similar. Naturally, there needs to be a common language to describe the concepts embodied in these similar principles. Nevertheless, in this respect it is clear, for example, that both CSP and SECs related

to Goldthorpe’s schema are similar in the following important ways:

1. in making basic distinctions between employers, the self-employed and employees;
2. in distinguishing among employees based on types of employment contracts. In France, both wage scales and service grades enter into distinctions made between employees; with Goldthorpe and NS-SEC the similar conception of ‘form of employment regulation’ (service relationship, labour (or spot) contract and intermediate between the two) is the key distinction;
3. each has ways of treating the inactive by reference to former occupations;
4. at the more abstract level, the CSP is officially described as bringing together ‘occupational positions’ (*situations professionnelles*) that are similar in terms of activity, work content, employment relationship, source of income and working conditions and which suggest a common social identity and life style. This is surely not far removed from the NS-SEC that is similarly based on source of income (profit, salary or wage) and other typical aspects of market and work situations as expressed through the employment relationship.

Nevertheless, it would be interesting to undertake analyses that compare CSP and NS-SEC in various ways.⁷ This may be possible as work on a European SEC (E-SEC) develops further (see Rose *et al* 2001: Sections 9 and 10).

Conceptual clarity

We would stress one vital prerequisite for a satisfactory comparative SEC, a clear conceptual basis within an etic approach. It

seems to us that this is a *sine qua non* for a comparative classification such as E-SEC. More intuitive derivations for national SECs, such as CSP and RGSC, are possible only because, to an astute observer, national social structures are 'visible'. This is not so when we wish to create SECs that are applicable cross-nationally and are thus comparative in purpose. Only an explicit conceptual approach will suffice. Why is this?

It has often been remarked that almost any sensibly derived intuitive SEC will have the capacity to *display variation*. The Social Grade scheme used in UK market research (MRS 1991) is an example. However, it will not have *analytic transparency*. That is, without a clear conceptual rationale, we cannot understand the causal pathways which lead to the regular patterns revealed by its use in research; that is, the processes that generate empirical regularities (Breen and Rottman 1995; Bartley *et al* 1999). In addition, if we cannot get a handle on causal pathways, then it is not apparent how recommendations can be provided on relevant policy actions that might address these persistent variations. Examples include the difficulties encountered in setting targets for reducing health variations between states that can be linked to achievable policies and, more generally, in developing policies to target deprived groups. Needless to say, any SEC must also be used and interpreted correctly by analysts, if the benefits of analytic transparency are to be realised.

Obviously, as we have already observed, a clear conceptual rationale does not thereby remove all barriers to explanation. There are many bases to social stratification, not all of which will be measured by a particular SEC. Nevertheless, we would argue that a conceptually clear, properly constructed and well-validated SEC facilitates a focus on other variables when searching for explanations of

remaining differences.

Finally, the lack of a conceptual rationale renders the task of *validating* a classification impossible and of *maintaining* a classification over time much harder. Validation involves both demonstrating that a measure does indeed measure what it purports to measure (criterion validity) and that it usefully discriminates in theoretically predicted ways (construct validity). In addition, once (criterion) validated, a measure may be re-validated to assist with maintenance over time.

Conclusions

In this paper we have attempted to explain recent UK approaches to SECs, especially as they pertain to the creation of the NS-SEC and a possible EU SEC. In particular, we have concentrated on official and academic approaches. We have seen that the NS-SEC has now effectively unified the official approach with that developed by Goldthorpe and his associates over the last twenty-five years. Finally, we have suggested that there are some similarities between this approach and CSP, insofar as each is measuring similar phenomena.

So far as the development of an EU SEC is concerned, much work remains to be achieved. The task of applying an outline theoretical model to the different member states requires new empirical research. However, we would not wish to claim that an EU SEC would ever be superior to a national classification when the requirement is solely to analyse national data. The role of an EU SEC would be a comparative one. If it were created, there can be little doubt that it would prove a useful tool for both policy and academic purposes.

Notes

1. For a detailed discussion of what we mean by a ‘socio-economic classification’, see Rose *et al* (2001: sections 2 and 5). Briefly, we regard the term as a purely descriptive one that may be applied to all the classifications discussed here. In that sense, we eschew essentialist (also known as idealist or realist) positions. We take a nominalist position that sees ‘SEC’ as a useful instrument of description (and see footnote 3 below).

2. As an indication of continuing popular obsession with class in the UK, we can cite the following. In March, 2001, the BBC Radio 4 breakfast programme *Today* broadcast a feature on the NS-SEC. In connection with this, a BBC website was established that allowed people to log in and discover which class they were in. Within one hour 10,000 hits were recorded, rising to 100,000 within a week. Today’s normal hit rate for a feature such as this would be 3-4,000.

3. Rose (1997) provides a further discussion of these and related issues.

4. The use of the word ‘schema’ by Goldthorpe is advised. It points to the fact that it is a conceptual construction, an issue we have further explored in Rose *et al* 2001, paras 5.16-5.18.

5. These data were collected in the 1996/97 winter quarter of the LFS. Questions were asked as follows:

(1) Which of the following best describes how you are paid in your present job?

- Monthly salary plus performance
- Monthly salary only
- Weekly wage
- Hourly paid
- Piecework
- Other

(2) Are you on a recognised pay scale with increments, either automatic or performance related?

- Yes
- No
- Don’t know

(3) If you decided to leave your job, how much notice are you officially required to give?

- Less than one week
- One week but less than one month
- One month but less than three months
- Three months or more
- Don’t know

(4) In your sort of work, are there opportunities for promotion, either in your current organisation or by changing employers?

- Yes
- No
- Don’t know

(5) Who decides what time you start and leave work?

- Flexitime system
- Employer decides
- I decide within certain limits
- Negotiated with employer

- (6) Does your job require you to design and plan important aspects of your own work, or is your work largely specified for you?

I am required to design/plan my work
Work is largely specified by others
Other

- (7) How much influence do you personally have in deciding what tasks you are to do?

A great deal
A fair amount
Not much
Or none at all

- (8) Does your sort of work have a recognised career ladder?

Yes
No
Don't know

In selecting these as appropriate questions to use as indicators of employment relations and conditions among employees, the UK team was by no means working in the dark. Recent research suggested that there were three conceptually separable, although empirically correlated, respects in which employment relations might continue to be differentiated according to whether a service relationship, intermediate or labour contract form of regulation exists. These were (1) forms of remuneration; (2) promotion opportunities; (3) and autonomy, especially as regards time (see Goldthorpe 1997). Hence the questions that were asked as given above. So, for example, salary payments, the presence of incremental scales, longer periods of

notice and high degrees of autonomy, taken together, would indicate a service relationship. The absence of these criteria would indicate a labour contract. A mixture of positive and negative values would suggest intermediate regulation.

6. An *emic* approach concentrates on describing the indigenous values of a particular society. An *etic* approach applies broader theoretical models applicable across a number of societies. CSP appears to take the emic form and Goldthorpe (and thus NS-SEC) the etic one. For reasons we shall explain, the latter approach is required for a comparative measure such as an EU SEC.

7. Goux and Maurin (2001) have initiated some work in this direction, although their first attempt at a comparative validation of CSP and the Goldthorpe schema exhibits various problems, some of which are due to the inadequacy of their data for their purposes (see Rose 2001).

References

- Albrow, M. (1989) 'Sociology in the United Kingdom after the Second World War' in N. Genov (ed.) *National Traditions in Sociology*. London: Sage.
- Bailey, K.D. (1994) *Typologies and Taxonomies: An Introduction to Classification Techniques*. Thousand Oaks: Sage.
- Bartley, M., Sacker, A., Firth, D. and Fitzpatrick, R. (1999) 'Understanding social variation in cardiovascular risk factors in women and men: the advantage of theoretically based measures', *Social Science and Medicine*, 49, 6, 831-845.
- Birkelund, G.E., Goodman, L. and Rose, D. (1996) 'The Latent Structure of Job Characteristics of Men and Women', *American Journal of Sociology*, 102, 1, 80-113.
- Blackburn, R.M. (1998) 'A New System of Classes: But What Are They and Do We Need Them?', *Work, Employment and Society*, 12, 4, 735-741.
- Blackburn, R.M. and Prandy, K. (1997) 'The reproduction of social inequality', *Sociology*, 31, 3, 491-509.
- Bland, R. (1979) 'Measuring Social Class', *Sociology*, 13, 2, 283-291.
- Brauns, H. (1999) 'Comparative considerations on the construction of the EGP-Class Schema based on official statistics of Germany, France and the UK'. Paper presented at the LASMAS Seminar on the Harmonisation of Classifications, December 6.
- Breen, R. and Goldthorpe, J.H. (1999) 'Class inequality and meritocracy: a critique of Saunders and an alternative analysis', *British Journal of Sociology*, 50, 1, 1-27.
- Breen, R. and Rottman, D. (1995) 'Class Analysis and Class Theory', *Sociology*, 29, 3, 453-473.
- Brewer, R.I. (1986) 'A Note on the Changing Status of the Registrar General's Classification of Occupations', *British Journal of Sociology*, XXXVII, 1, 131-140.
- Butler, T. and Savage, M. (Eds.) (1995) *Social Change and the Middle Classes*. London: UCL.
- Chandola, T. (1998) 'Social inequality in coronary heart disease: a comparison of occupational classifications', *Social Science and Medicine*, 47, 525-533.
- Chandola, T. (2000) 'Social class differences in mortality using the new UK National Statistics Socio-economic Classification', *Social Science and Medicine*, 50, 1, 641-649
- Crompton, R. (1998) *Class and Stratification*. Cambridge: Polity Press.
- Crompton, R., Devine, F., Savage, M. and Scott, J. (Eds.) (1997) *Renewing Class Analysis*. Oxford: Blackwell.
- Drever, F. and Whitehead, M. (Eds.) *Health Inequalities*. London: The Stationery Office.
- Egidi, V. and Schizzerotto, A. (1996) 'Social Stratification and Mobility. Concepts, Indicators and Examples of Application', Proceedings of the Siena Group Meeting, June 1996. Paris: INSEE.
- Elias, P. (1997) 'Social Class and the Standard Occupational Classification' in D. Rose and K. O'Reilly (Eds.) *Constructing Classes*. Swindon and London: ESRC and ONS.
- Erikson, R. and Goldthorpe, J.H. (1992) *The Constant Flux*. Oxford: Clarendon Press.
- Evans, G. (1998) 'On Tests of Validity and Social Class: Why Prandy and Blackburn are Wrong', *Sociology*, 32, 1, 189-202.
- Evans, G. (1996) 'Putting Men and Women into Classes: An Assessment of the Cross-sex Validity of the Goldthorpe Class Schema', *Sociology*, 30, 2, 209-234.
- Evans, G. (1992) 'Testing the Validity of the Goldthorpe Class Schema', *European Sociological Review*, 8, 3, 211-232.
- Evans, G. and Mills, C. (2000) 'In Search

- of the wage-labour/service Contract: new evidence on the validity of the Goldthorpe class schema', *British Journal of Sociology*, 51, 4, 641-661.
- Evans, G. and Mills, C. (1998) 'Identifying Class Structure. A Latent Class Analysis of the Criterion-related and Construct Validity of the Goldthorpe Class Schema' *European Sociological Review*, 14, 1, 87-106.
- Fitzpatrick, J. and Dollamore, G. (1999) 'Examining adult mortality rates using the National Statistics Socio-economic Classification', *Health Statistics Quarterly*, 2, 33-40.
- Gershuny, J. (2000) 'Social position from narrative data' in R. Crompton, F. Devine, M. Savage and J. Scott (Eds.) *Renewing Class Analysis*. Oxford: Blackwell.
- Glass, D. (1954) *Social Mobility in Britain*. London: Routledge.
- Goldblatt, P. (1990) *Longitudinal Study: Mortality and Social Organisation 1971-81*. London: HMSO.
- Goldthorpe, J.H. (2000a) 'Rent, Class Conflict, and Class Structure: A Reply to Sørensen', *American Journal of Sociology*, 105, 6, 1572-1582.
- Goldthorpe, J.H. (2000b) 'Social class and the differentiation of employment contracts' in J.H. Goldthorpe, *On Sociology: Numbers, Narratives, and the Integration of Research and Theory*. Oxford: OUP.
- Goldthorpe, J.H. (1997) 'The "Goldthorpe" class schema: some observations on conceptual and operational issues in relation to the ESRC review of government social classifications' in D. Rose and K. O'Reilly (Eds.) *Constructing Classes*. Swindon and London: ESRC and ONS.
- Goldthorpe, J.H. (1981) 'Social Standing, Class and Status', paper presented to the SSRC Survey Methods Seminar, LSE, November 5.
- Goldthorpe, J.H. (1980) *Social Mobility and Class Structure in Modern Britain*. Oxford: Clarendon.
- Goldthorpe, J.H. and Bevan, P. (1977) 'The Study of Social Stratification in Great Britain, 1945-1975', *Social Science Information*, 16, 3/ 4, 279-334.
- Goldthorpe, J.H. and Hope, K. (1974) *The Social Grading of Occupations*. Oxford: Clarendon.
- Goldthorpe, J.H., Lockwood, D., Bechhofer, F. and Platt, J. (1969) *The Affluent Worker in the Class Structure*. Cambridge: CUP.
- Goldthorpe, J.H. and Marshall, G. (1992) 'The Promising Future of Class Analysis: A Response to Recent Critiques', *Sociology*, 26, 3, 381-400.
- Goux, D. and Maurin, E. (2001) 'Social classes and employment relationships'. Working Paper, Paris: INSEE.
- Grais, B. (1999) *Socio-economic Classifications Used in the Official Statistics of the Member States of the European Union*. Luxembourg: Eurostat.
- Hall, J. and Caradog Jones, D. (1950) 'Social Grading of Occupations', *British Journal of Sociology*, I, 1, 31-55.
- Halpin, B. (1999) 'Is Class Changing? A Work-Life History Perspective on the Salarariat', *Sociological Research Online*, 4, 3.
- Halpin, B. (1997) 'Current issues in Stratification in the UK', paper presented at L'Observatoire Sociologique du Changement, Paris, December 12.
- Halsey, A.H. (1995) *Change in British Society*. Oxford: OUP.
- Halsey, A.H. (1985) 'Provincials and professionals: the British post-war sociologists' in M. Bulmer (ed.) *Essays on the History of British Sociological Research*. Cambridge: CUP.
- Heath, A. et al (1985) *How Britain Votes*. Oxford: Pergamon.
- Kent, R. (1985) 'The emergence of the sociological survey, 1887-1939' in M. Bulmer (Ed.) *Essays on the History of British Sociological Research*. Cambridge: CUP.
- Kunst, A. Groenhof, F., Mackenbach, J. and the EU Working Group on

- Socioeconomic Inequalities in Health (1998a) 'Mortality by Occupational Class among Men 30-64 Years in 11 European Countries', *Social Science and Medicine*, 46, 11: 1459-1476.
- Kunst, A. Groenhouf, F., Mackenbach, J. and the EU Working Group on Socioeconomic Inequalities in Health (1998b) 'Occupational class and cause specific mortality in middle aged men in 11 European Countries: comparison of population based studies', *British Medical Journal*, 316, May 30: 1636-1641.
- Lee, D. and Turner, B. (Eds.) (1996) *Conflicts about Class*. Harlow: Longman.
- Leete, R. and Fox, J. (1977) 'Registrar General's Social Classes: Origins and Uses', *Population Trends*, 8, 1-7.
- Lockwood, D. (1958/1989) *The Blackcoated Worker*. London: Allen and Unwin/ Oxford: OUP.
- Marsh, C. (1986a) 'Social Class and Occupation' in R.Burgess (Ed.) *Key Variables in Social Investigation*. London: RKP.
- Marsh, C. (1986b) 'Occupationally Based Measures of Social Class' in A. Jacoby (Ed.) *The Measurement of Social Class*. London: Social Research Association.
- Marshall, G. (1997) *Repositioning Class: Social Inequality in Industrial Societies*. London: Sage.
- Marshall, G. (1988) 'Classes in Britain: Marxist and Official', *European Sociological Review*, 4, 2, 141-154.
- Marshall, G., Rose, D., Newby, H. and Vogler, C. (1988) *Social Class in Modern Britain*. London: Hutchinson.
- Marshall, G., Swift, A. and Roberts, S. (1997) *Against the Odds? Social Class and Social Justice in Industrial Societies*. Oxford: Clarendon Press.
- Marshall, T.H. (1950) *Citizenship and Social Class*. Cambridge: CUP.
- MRS (1991) *Occupation Groupings: A Job Dictionary*. London: Market Research Society.
- Newby, H. (1982) *The State of Research into Social Stratification in Great Britain*. London: SSRC.
- O'Reilly, K. and Rose, D. (1998) 'Changing Employment Relations? Plus ca change, plus c'est la meme chose? Reflections arising from the ESRC Review of Government Social Classifications', *Work, Employment and Society*, 12, 4, 713-733.
- ONS (2000) *Standard Occupational Classification 2000 Volume 1: Structure and descriptions of unit groups*. London: The Stationery Office.
- OPCS (1991) *Standard Occupational Classification Volume 3*. London: HMSO.
- Osborn, A. and Morris, T. (1989) 'The Rationale for a Composite Index of Social Class and its Evaluation', *British Journal of Sociology*, 30, 1, 39-60.
- Pahl, R.E. (1989) 'Is the emperor naked?', *International Journal of Urban and Regional Research*, 13, 4, 711-720.
- Pahl, R.E. (1993) 'Does Class Analysis without Class Theory Have a Promising Future? A Reply to Goldthorpe and Marshall', *Sociology*, 27, 2, 253-258.
- Popper, K.R. (1960) 'Essentialism versus Nominalism' in K.R. Popper, *The Poverty of Historicism*. London: RKP.
- Prandy, K. (1999) 'Class, stratification and inequalities in health: A comparison of the Registrar-General's Social Class and the Cambridge Scale', *Sociology of Health and Illness*, 21, 4, 466-484.
- Prandy, K. (1998a) 'Class and continuity in social reproduction: an empirical investigation', *Sociological Review*, 46, 2, 340-364.
- Prandy, K. (1998b) 'Deconstructing Classes: Critical comments on the revised social classification', *Work, Employment and Society*, 12, 4, 743-753.
- Prandy, K. (1990) 'The Revised Cambridge Scale of Occupations', *Sociology*, 24, 4, 629-655.
- Prandy, K. and Blackburn, R.M. (1997) 'Putting Men and Women into Classes: But is that where they belong? A Comment on Evans', *Sociology*, 31, 1,

- 143-152.
- Rose, D. (2001) 'Comparing socio-economic classifications: Some comments on Goux's and Maurin's "Social classes and employment relationships"'. Colchester: ISER, University of Essex.
- Rose, D. (1998) 'Once More unto the Breach: In Defence of Class Analysis Yet Again', *Work, Employment and Society*, 12, 4, 755-767.
- Rose, D. (1997) 'Thinking about social classifications' in D. Rose and K. O'Reilly (Eds.) *Constructing Classes*. Swindon and London: ESRC and ONS.
- Rose, D. and O'Reilly, K. (1998) *The ESRC Review of Government Social Classifications*. London and Swindon: ONS and ESRC.
- Rose, D. and O'Reilly, K. (Eds.) (1997) *Constructing Classes*. Swindon and London: ESRC and ONS.
- Rose, D. and Pevalin, D.J. (Eds.) (2001) *Confirming Classes: Validation Studies of the NS-SEC*. London: Sage.
- Rose, D. and Pevalin, D.J. (2000) 'Social class differences in mortality using the National Statistics Socio-economic Classification – too little, too soon: a reply to Chandola', *Social Science and Medicine*, 51, 7, 1121-1127.
- Rose, D., Pevalin, D.J. (with O'Reilly, K.) (2001) *The National Statistics Socio-economic Classification: Origins, Development and Use*. London: ONS.
- Rose, D., Pevalin, D.J., Elias, P. (with Martin, J.) (2001) Towards a European Socio-economic Classification: Final Report to Eurostat of the Expert Group. London and Colchester: ONS and ISER, University of Essex.
- Sacker, A., Firth, D., Fitzpatrick, R., Lynch, K. and Bartley, M. (2000) 'Comparing health inequality in men and women: prospective study of mortality 1986-96', *British Medical Journal*, 320, 1303-1307.
- Saunders, P. (1996) *Unequal but Fair? A Study of Class Barriers in Britain*. London: IEA.
- Savage, M., Barlow, J., Dickens, P. and Fielding, A. (1992) *Property, Bureaucracy and Culture*. London: RKP.
- Savage, M. and Egerton, M. (1997) Social mobility, individual ability and the inheritance of class inequality', *Sociology*, 31, 4, 645-672.
- Scott, J. (1996) *Stratification and Power*. Cambridge: Polity Press.
- Stevenson, T.H.C. (1928) 'The Vital Statistics of Wealth and Poverty', *Journal of the Royal Statistical Society*, 91: 207-230.
- Stewart, A., Prandy, K. and Blackburn, R.M. (1980) *Social Stratification and Occupations*. London: Macmillan.
- Szreter, S.R.S. (1993) 'The Official representation of Social Classes in Britain, the United States and France: The Professional Model and "Les Cadres"', *Comparative Studies in Society and History*, 35, 2, 285-317.
- Szreter, S.R.S. (1984) 'The genesis of the Registrar General's social classification of occupations', *British Journal of Sociology*, 35, 4, 523-546.
- Thomas, R. (1990) 'Occupation referenced socio-economic classification', *Survey Methodology Bulletin*, 26, 26-34. London: OPCS.
- Thomas, R. and Elias, P. (1989) 'Development of the Standard Occupational Classification', *Population Trends*, 55, 16-21.
- Townsend, P. (1979) *Poverty in the United Kingdom*. Harmondsworth: Allen Lane/Pelican Books.