

## **The importance of specificity in occupation-based social classifications**

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### **Abstract**

**Purpose** – This paper presents reasons why social classifications which use occupations should seek to adopt ‘specific’ approaches which are tailored to the country, time period and gender of the subjects under study.

**Design/methodology/approach** – We discuss the relative motivations for adopting a specific approach to social classifications. We review theoretical perspectives on specificity, then discuss empirical evidence on the contribution of specific approaches. We also evaluate the practical costs of implementing specific social classifications, and discuss the authors’ development of the ‘GEODE’ data service (Grid Enabled Occupational Data Environment), which seeks to assist this process.

**Findings** – Specific approaches make a small but persistent difference to the conclusions drawn from analyses of occupation-based social classifications. We claim that many of the practical difficulties of implementing specific measures have been removed by recent internet developments.

**Research limitations/implications** – There remain conceptual and pragmatic challenges in working with specific occupation-based social classifications. Non-specific (‘universal’) measures are adequate for many purposes.

**Practical implications** – This paper argues that there are few excuses for ignoring specific occupation-based social classifications.

**Originality/value** – This paper demonstrates that recently available data resources and technological developments have shifted the balance in the long-standing debate between universal and specific occupationally based social classifications.

**Keywords** – Occupations; social classifications; survey data; e-social science.

**Paper Type** – General Review

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## 1. Introduction

*“Occupations are ranked in the same order in most nations and over time. ..Hout referred to the pattern of invariance as the ‘Treiman constant’.. ..the Treiman constant may be the only universal sociologists have discovered”*  
(Hout and DiPrete, 2006:2-3).

Hout and DiPrete (2006) highlight the ‘Treiman constant’ as the single most important empirical generalization to be confirmed through the long history of social stratification studies associated with RC28 research conferences. The ‘constant’ is the idea that occupational positions have the same stratification meanings across different countries and time periods (Treiman, 1977). This leads to a ‘universal’ approach to occupation-based social classifications. It may be contrasted with a ‘specific’ approach, in which the same occupations could lead to different positions in a social classification, dependent on contexts such as nation, time period, or gender. By contrast to Hout and DiPrete’s contention, in two recent papers, the current authors have presented evidence of the enduring contribution which specific occupation-based social classifications can make (Lambert et al., 2005; Lambert et al., 2006).

In this paper we discuss the relative merits of universal and specific approaches to occupation-based social classifications. Widely recognised best practice for exploiting occupational records on micro-social datasets involves a two-stage process (e.g. Bechhofer, 1969; Armstrong, 1972; Marsh, 1986; Rose and Pevalin, 2003). One should first translate the original occupational record into a publicly recognised index of occupational positions, such as an occupational unit group scheme. Second, one should translate those positions, according to an externally published translation key, into a substantively meaningful social classification, such as a class scheme or occupational ranking.

At both stages of this process, researchers may adopt ‘universal’ or ‘specific’ strategies. Four positions result, illustrated schematically in Table 1. Universal approaches include those which use an occupational unit group scheme that is

harmonised across multiple contexts (such as ISCO-88, intended to be valid for all countries between 1988 and 2008, see Hoffman, 2003). Also universal are approaches which use a social classification translation key that applies the same classification rules across multiple contexts. Specific approaches on the other hand may use more a different occupational unit group scheme for each context. Similarly, a specific social classification translation may adopt particular rules and operations which vary across contexts.

Take in Table 1.

Of course, whether universal or specific approaches are adopted is only relevant to comparative research which covers more than one ‘social context’. Here we focus on three social contexts over which occupation-based social classifications can be specific. These are time periods, countries, and gender. The first contexts are the classic focus of comparative methodological literatures (e.g. Marsh 1967). The impact of gender on occupational measures has mostly been discussed in literatures within particular national and temporal contexts (e.g. Martin and Roberts, 1984; Crompton and Mann, 1994). We argue that gender differences in occupational distributions are so deep-rooted (e.g. Charles and Grusky, 2005) that their consideration should be central to any evaluation of occupation-based social classifications.

One complicating factor is that preferences for universality or specificity in occupation-based social classifications have been linked with preferences between alternative theoretical approaches to social classifications. For instance, those who have advocated understanding occupational structures in terms of a socio-economic status hierarchy have tended to favour a ‘fully universal’ approach (e.g. Ganzeboom and Treiman, 2003). Those who have argued that the structure of occupational positions should be understood through analysing patterns of social interactions between occupations have tended to favour a ‘fully specific’ approach (e.g. Lauman and Guttman, 1966; Prandy and Jones, 2001; Chan, 2006). Class analysts on the other hand often adopt a ‘partially universal’ approach. Here, a single (universal) occupational class classification is favoured, but its operationalisation involves adopting (specific) coding processes which are dependent upon the social context (see for example Erikson and Goldthorpe, 1992; Wright, 1997; Rose and Pevalin, 2003;

Harrison, 2006). This linkage between preferred strategy for occupational measurement, and a universal or specific approach, is unfortunate, as there is no necessary corollary. For instance, universal measures such as ISEI can be meaningfully derived in specific ways (e.g. Wong and Xiaogang, 2006), and specific measures such as CAMSIS may be averaged across contexts and analysed in a universal way (e.g. Lambert et al., 2006).

We summarise below three areas of debate between universal and specific approaches to occupation-based social classifications. These concern theoretical positions (section 2), empirical evidence (section 3); and issues in the practical implementation of universal and specific measures (section 4). Our review leads us to advocate greater exploitation of specific approaches.

## **2. The Theoretical Case for Specificity**

*“the idea of indexing a person’s origin and destination by occupation is weakened if the meaning of being, say, a manual worker is not the same at origin and destination. Historical comparisons become unreliable” (Payne, 1992: 220, cited in Bottero, 2005:65)*

The sentiment expressed in Payne’s observation finds support across the many principles of thought which contribute to contemporary sociology. Payne’s point is to raise the possibility of specificity in occupation-based social classifications. There are in fact no influential methodological positions which deny the possible influence of specificity on *a priori* grounds. For instance, Goldthorpe’s writings (e.g. 2000), which instantiate the methodological preferences of many empirically oriented social survey researchers, have stressed the value in making measurements contingent upon national and temporal contexts. From other perspectives, post-modernist methodological statements have asserted the positionality of social constructs such as class and stratification (e.g. Pakulski and Waters, 1996), whilst sociological

philosophers have explicitly opposed universal definitions of class or occupational positions (e.g. Sayer, 2005, c4).

Aside from methodological principles, we argue that there are five attractions, on theoretical grounds, to specific approaches to occupation-based social classifications (A1-A5 below). Equally, there are two theoretical difficulties to working with specific social classifications (B1 and B2 below).

A1) Specificity is better suited to engaging with the majority of popular sociological theories and hypotheses which anticipate changing social circumstances to occupational positions across countries, time periods or genders (including the example of social mobility research, the background to Payne's comment cited above). For instance, Marxist accounts of the labour process are littered with references to transformations in the meaning of occupations over time (e.g. Marx and Engels, 1948[1848]; Wright, 1997). Contemporary Weberian and Durkhiemian approaches to class analysis have also revised their interpretation of social positions to reflect changing occupational structures between countries and over time (esp. Wright, 2005). Feminist literatures emphasise the varying contexts of women's employment, and have advocated occupationally-based social classifications which are contingent upon gender (e.g. Martin and Roberts, 1984; O'Reilly, 1996; Reay, 1998). Collins (2000) offers an account for the interplay of structural stratification forces and individual lives, favouring any number of contingencies and specificities in a characterisation of stratification positions.

A2) Specific classifications are better able to exploit a finer level of occupational detail in deriving occupation-based social classifications (e.g. Prandy and Jones, 2001). This arises because they are able to use different details conditional on the appropriate context. As an example, the specific disaggregation of nursing and midwifery occupations between different grades may add value to analysis of a national population of females, but make little difference to a national population of males. Indeed, by permitting variations in the recording of occupational details, specific measures also have better opportunities to acknowledge the impact of local regulations, definitions, and anomalies in the measurement and classification of occupational positions.

A3) Specific measures usually offer a truer form of methodological equivalence. Hoffmeyer-Zlotnick and Wolf (2003) distinguish between strategies of input and output harmonisation in achieving equivalence in comparative research. Input harmonisation is typical of universal occupational measures, involving the imposition of the same external definitions across contexts. Input harmonisation is presented as the preferred choice for tightly coordinated research projects (e.g. Harkness et al., 2003). However output harmonisation, where data is constructed within a context, and reviewed for comparison during analysis, is regarded as more sensitive to local contextual differences (Hoffmeyer-Zlotnick and Wolf, 2003). Specific records may be output-harmonised by adopting an analytical strategy which measures specific locations relative to the contextual average. This is most easily achieved with gradational specific measures, which, if numerically standardised within contexts, provide a highly accessible form of output harmonisation.

A4) Specific and universal measures are equally amenable to the conduct of social research in a scientific manner. Steuer (2003) argues that a scientific approach to sociological study requires the cumulative development of research literature, and evaluation of theories through research evidence. These priorities concur with several recent reviews of research in stratification and occupational inequalities (e.g. Goldthorpe, 2005; Hout and DiPrete, 2006). On the face of it, universal measures seem more suited to scientific research, since separate research groups may more readily engage with each other through shared standard measures (esp. Goldthorpe, 2005; van Leuwen et al., 2004). However this priority is somewhat misleading. Replicability between studies is as which is as equally available on a well-documented universal as a specific social classification. Comparability of meaning is as equally attainable from (universal) input and from (specific) output harmonisations (as A3).

A5) Specific measures are more likely to make non-trivial differences to analytical conclusions the wider the range of contexts between compared. Recent trends in social survey analysis have been towards widening this range, for instance by growth in the number of cross-national survey projects and the number of countries on which

cross-national surveys are applied, and through extending the period of data readily available for comparisons.

B1) Specific measures have a danger of being impossibly relativist, since there are no agreed criteria over how specific it is valuable to be. It has been argued, for example, that relative occupational positions also follow a different structure between different regional localities, or ethnic groups, within a nation (e.g. Schadee and Schizzerotto, 1987; Green and Owen, 1995). Specific occupation-based social classifications have hitherto applies specificity only to those contexts where researchers have published detailed occupational measures – but there is no objection, in theory, to greater relativism in specific approaches.

B2) Specific measures are more vulnerable to measurement and classification errors. This arises because most specific classifications rely on some degree of empirical estimation of the classification position (for instance, CAMSIS measures are calculated as the estimated average social interaction positions, see Prandy and Jones, 2001). Often this estimation may be vulnerable to sampling instability, and measurement errors occurring within the transferral and management of occupational records. As multiple specific versions are published, it is likely that each version can expect to receive less extended review than longer established universal measures.

### **3. Empirical evidence on specificity and universality**

In early sociological literature the question of whether a single, universal occupation-based social classification might be adequate was frequently evaluated (e.g. Hodge et al., 1953; Inekeles and Rossi, 1956; Duncan, 1961; Marsh, 1967; Treiman, 1975, 1977). The consistent conclusion, from comparing between countries and time periods, was that all occupation-based measures demonstrated high correlations. Such correlations were usually taken to imply that universal approaches to occupational measures were adequate, although a few researchers did demonstrate circumstances when specific measures could provide an additional contribution (e.g. Blishen, 1958; Fox and Miller, 1966), albeit one of diminishing returns (Treiman, 1977).

Surprisingly, few empirical evaluations have continued those traditions into more recent decades<sup>1</sup>. Most recent accounts have involved defending the robustness of a favoured universal approach to cross-national analyses. Thus, Ganzeboom and Treiman (2003), Oesch (2006), and Harrison (2006) present analyses which demonstrate high correlations in the properties of their favoured universal measure(s) between countries. Although helpful, these demonstrations do not offer an evaluation of the favoured measures in contrast to alternative, specific classifications. They also tend to neglect temporal and gender variations.

Lambert et al. (2005) provide one recent descriptive study of specificity. They examined contingency across a wide range of social contexts by using four major contemporary collections of cross-nationally harmonised survey datasets<sup>2</sup>. They looked for evidence of cross-national and gender differences in occupational measures. They found numerous instances where patterns of association between occupation-based social classifications and other socio-economic and socio-demographic measures varied moderately according to different universal and specific classifications. Such differences were more pronounced when comparing economies from Eastern and Western Europe; and when studying occupational groups associated with farming and with high levels of gender segregation. However, Lambert et al.'s descriptive analysis also emphasised that the magnitude of difference between universal and specific approaches was small.

As another illustration, Table 2 summarises cross-national differences in the circumstances of a selection of occupational groups defined under the ISCO-68 unit group scheme (ILO, 1969). It shows numerous examples whereby the average characteristics of members of an occupational group differ between countries, even when the contexts under study are three relatively advantaged economies in the contemporary period.

Take in Table 2.

A small number of other publications have reported significant differences in the properties of occupational measures and occupation-based social classifications, over



time periods (e.g. Brewer 1986; CTEHP, 1999); between countries (e.g. Jarman et al., 1999; Zhou, 2005) and between men and women (e.g. Prandy, 1986; England et al., 1994). However, other descriptive reviews of occupational positions have concluded that there is little evidence of substantial change in circumstances over contexts (for example, Huang, 2001), and some authors have also argued that much more limited occupational records may adequately summarise social positions, given the general cross-context robustness of occupational measures (Ganzeboom, 2005; Albrecht et al., 2002).

In such descriptive reviews, it is clear that much depends upon where the analyst chooses to place the emphasis on difference or similarity. For instance, Prandy and Lambert (2003) reported correlations of the order of 0.9 between male and female CAMSIS occupational scales for Britain using data from 1971 and 1991, and concluded that the lack of exact equivalence was evidence for employing specificity in these contexts. On the other hand, Chan and Goldthorpe (2004) used closely related methods and datasets, and found the same magnitude of male-female correlation, but used this to argue that male and female occupational measures were broadly equivalent in the period.

In order to persuade a sceptical reader that empirical evidence may support a specific approach, it may be necessary to demonstrate more enduring analytical impacts of specificity. In one example, Lambert et al. (2006) reviewed occupation-based social classifications on datasets from six countries spanning the period 1800-1938. Their analysis also showed differences in the locations of occupations according to universal and specific measures, and observed that historical changes in occupational circumstances over time, measured by specific approaches but ignored by universal measures, were aligned to expectations of changing occupational structures. Additionally, Lambert et al. (2006) tested the efficiency of occupation-based social classification derivation models which imposed alternatively universal and specific constraints in a nested framework. They found the additional explanation offered by specific extensions (by time period, country and gender) were statistically significant and improved model parsimony.

Figures 1 and 2 summarise further evidence of the small but significant continued impact of specificity on contemporary survey data from Britain, the United States and Germany. The figures use data from the Cross National Equivalence File (Burkhauser et al., 2001), augmented with occupational records extracted from the original micro-data for the three surveys. Our reason for using this comparative dataset is that it is a large scale study collected and stored to particularly high methodological standards. One methodological perspective is that the longitudinal panel data records stored on these studies offer us particularly detailed information on the circumstances of the respondents. By taking care to specify detailed regression models for selected social processes, we might come close to fully controlling for other factors and ultimately measuring the ‘true’ effects of occupation-based social classifications (e.g. Baltagi, 2001).

Figures 1 and 2 present the effects of five different occupation-based social classifications. The first uses a fully universal implementation of the ISEI metric (using ISCO-68 occupations and the standard ISEI translation of Ganzeboom et al 2006). The second uses a partially universal implementation of ISEI (using the standard translation file, but based upon original occupational unit groups for each country). The third uses a universal implementation of the CAMSIS metric (CAMSIS scores mapped to ISCO-68 by using the cross-national average score). The fourth and fifth measures use specific versions of the CAMSIS metric, using the national scales on national occupational unit group records. The fourth measure uses the male version of the scale for all respondents, whilst the fifth uses the male scale for men, and the female scale for women.

Figure 1 here.

Figure 1 shows the impact of alternative approaches to occupation-based social classifications in the context of an examination of the effect of stratification position upon self-reported subjective health. The first panel emphasises that small differences may be observed according to different universal and specific measures. In all three countries, it is noticeable that that correlation is stronger for specific measures, and stronger for gender-specific measures in the case of the CAMSIS scores. Equally, the panel reiterates that the magnitude of differences are not substantial.

The second panel of Figure 1 looks in greater detail at the relation between stratification position and subjective good health. It looks at the residual effect of stratification advantage on subjective health after controlling for other socio-demographic factors and by utilising the repeated contacts panel data's inherent controls for residual heterogeneity. It illustrates that small differences in predicted effects persist between universal and specific measures, though in all cases the differences between the measures are not of a magnitude to lead to substantially different conclusions. In fact, the second panel of Figure 1 would ordinarily be interpreted as evidence that a universal approach to occupational measures is satisfactory.

Figure 2 here.

Figure 2 uses a similar procedure to the second panel of Figure 1, reporting the residual effects of educational levels on stratification positions. In this case, in Germany and to a lesser extent in Britain and the US, there are significant differences between the estimated effects of education according to which occupation-based measures are used. The effects associated with specific measures tend to be greater. Although the differences do not appear that large, the point of this analysis is to show their persistence to a detailed level of statistical control.

#### **4. Practical issues in the implementation of specific measures**

The uptake of specific measures of occupation-based social classifications has been very limited, despite their consonance with many theoretical perspectives (e.g. O'Reilly, 1996). Instead, most researchers adopt a fully or partially universal strategy.

A likely explanation is that analysts tend to choose between occupation-based social classifications in large part on the basis of convenience of access and communication, rather than on theoretical grounds. In a better model of scientific practice, social researchers may evaluate a variety of alternative universal and specific measures, both in theoretical terms and through their empirical implementation. However to

implement alternative occupation-based social classifications can be a demanding process of data management, particularly so in the case of specific schemes. As an indication, the analyses behind Figures 1 and 2 took approximately six times longer to implement (in terms of data management programming) in the case of the fully specific models than the fully universal model.

The implementation of alternative social classifications requires published occupational information resources such as databases of translation keys linking occupational unit groups with social classification positions. Over the last decade the internet has increasingly been used to provide facilities for supplying occupational information resources. In principle, websites such as the ISMF (Ganzeboom, 2006) and CAMSIS (Lambert and Prandy, 2006) sites provide tools to allow analysts to download numerous alternative classification files and implement them across different social contexts. These websites offer data files in relatively simple tabular formats and furnish user instructions in implementing alternative translations. Nevertheless, they are not widely exploited by social researchers. One likely problem is that they have generated a bewildering array of alternative occupational information resources, stored across different internet locations, in inconsistent formats, with limited documentation, and with potential for updating and revision over time.

In a recent development, several of the authors of this paper have been involved in a project which attempts to use newly emerging computing technologies to develop a more sophisticated indexing service for occupational information resources. The GEODE project (Grid Enabled Occupational Data Environment, see [www.geode.stir.ac.uk](http://www.geode.stir.ac.uk)) involves developing a depository of occupational information resources which are indexed by a consistent set of descriptive metadata (using a standard developed through the Data Documentation Initiative, <http://www.icpsr.umich.edu/DDI/>). The service exploits 'Grid' technologies (which are associated with the management of distributed data resources and virtual research communities) in order to provide an efficient index record for all occupational resources, and to provide a system for managing the storage and supply of resources to other researchers (see Tan et al., 2006). Access to the service is achieved through a user-friendly webpage 'portal'. This allows social scientists interested in occupational information resources to search for existing resources and, crucially, to request that

their own micro-social survey data be automatically linked to any specified desired occupational data files. The latter innovation is critical in encouraging easy access to alternative specific (and universal) occupation-based social classifications. Through a Grid service it is possible to facilitate the easy matching of occupational records in a secure environment, thus making the rapid implementation of alternative universal and specific occupation-based social classifications a possibility. Developmental work on the GEODE service is still needed, but its current status demonstrates the feasibility of a data service enabling rapid access to numerous specific occupation-based social classification translation keys.

## **6. Conclusions**

We agree with many of the comments of Hout and DiPrete (2006) concerning the desirability of coordinated use of occupational measures, and our review leads us to maintain, like Hout and DiPrete, that the principle of the Treiman constant is sound advice for many purposes.

Nevertheless our review illustrates a number of methodological and theoretical principles which may attract researchers to a specific rather than a universal approach to occupation-based social classifications (section 2). As such, it is difficult to explain the limited uptake of specific classifications in empirical research. It is certainly likely that the practical requirements of deriving specific measures are off-putting (cf. section 4). It also seems likely that it is felt to be cognitively easier, both for those conducting and communicating research, to talk in universal rather than specific terms when describing occupation-based social positions. This perception is misleading; for instance, economist's widespread use of income measures which are standardised within national, temporal and gender contexts demonstrates how a specific measure can be readily understood by a wide audience.

In section 3, we sought to demonstrate that the empirical benefits of a specific approach were often greater than is widely appreciated. There are for instance numerous types of comparative analysis where specific approaches are more informative (such as cross-national comparisons involving a wide range of countries).

There is also evidence that specific approaches summarise long-term trends in occupational re-structuring more satisfactorily. We argued that most important, however, was evidence of the robustness of the differences associated with specific approaches. Although of a relatively small magnitude (as most sociological trends tend to be), extended data resources and modelling strategies still reveal a distinctive premium to adopting occupation-based social classifications which are specific to the nation, time period and gender group under study.

The principle of the Treiman constant ultimately emerges from a cost-benefits analysis, in which specific approaches are felt to be complex and time-consuming whilst generating minimal differences from universal strategies. However, internet facilities, such as those prepared through the GEODE project, can dramatically reduce the costs of specific approaches. Contrary to popular perceptions, specificity may now be readily incorporated into occupational analyses, and may lead to more empirically and theoretically satisfactory results

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Tables referred to in the text

<b>Table 1: Universality and Specificity in occupation-based social classifications, from selected comparative sociological applications</b>		
<b>Stage 1: Coding of occupational data</b>	<b>Stage 2: Translation of occupational index into substantive social classification</b>	
	<i>Universal</i> <i>same occs. to same positions in all circumstances</i>	<i>Specific</i> <i>same occs. may go to different positions in different contexts</i>
<i>Universal</i> <i>(harmonised unit group scheme)</i>	<b>Fully universal</b> Examples: - Marks (2005), analysis of PISA survey, ISCO-88 with CASMIN class.	<b>Partially specific</b> Examples ( <i>rare</i> ): - Lambert et al. (2005) analysis of European Social Survey, ISCO-88 with national CAMSIS scales
<i>Specific</i> <i>(contextual unit group scheme)</i>	<b>Partially Universal</b> Examples ( <i>common</i> ): - CASMIN project (Erikson and Goldthorpe 1992), occupations coded to national unit groups, translated to CASMIN class.	<b>Fully specific</b> Examples: - Blackburn & Jarman (2006), occupations coded to national unit groups, translated to national CAMSIS schemes

**Table 2: Circumstances of selected occupations in Britain, Germany and USA**

Source: CNEF 1991 surveys, employees working full or part time only.

	% female	% full time	Mean income/1000	% post-school qualifications	% subjective health is good
<b>ISCO-68 Minor groups (by country)</b>					
<b>2 – Architects, Engineers</b>					
B	4	84	19	75	86
G	26**	84**	28**	56**	68
US	11*	94	49*	91**	78
<b>13 – Educators</b>					
B	70	57	13	86	84
G	51**	58*	27	70**	63
US	74*	41**	27*	93**	81*
<b>21 – Business leaders</b>					
B	27	83	20	51	87
G	16*	94	37*	32	62
US	34*	87	36**	63**	75
<b>53 – Cook / waiter</b>					
B	67	49	5	11	66
G	72**	57	12	0**	68*
US	82**	36**	10	18	55
<b>84 – Machine fitter</b>					
B	23	79	10	11	78
G	17	93	23	1**	58
US	10**	88	25	18	63
<b>98 – Transport operative</b>					
B	8	73	11	11	82
G	7	90	23	4*	57*
US	9	86	23*	17	61*
<b>99 – Labourer / craftsman</b>					
B	14	65	9	14	84
G	44**	66	15*	2**	54*
US	23**	74	20	19	51**
<b>All occupations</b>					
B	48	62	11	32	82
G	41	74	22	20	65
US	47	71	26	50	69

Samples consist of unweighted CNEF main sample employed adults, N= 3800 (UK); 3448 (Germany); 4169 (USA) (listwise deletion of missing data).

\* / \*\* : ratio [(average - occupational statistic) / average] exceeds British ratio by 0.1 / 0.2

Occupations selected such that 50 or more cases represent all occupations in all time points.

Figures

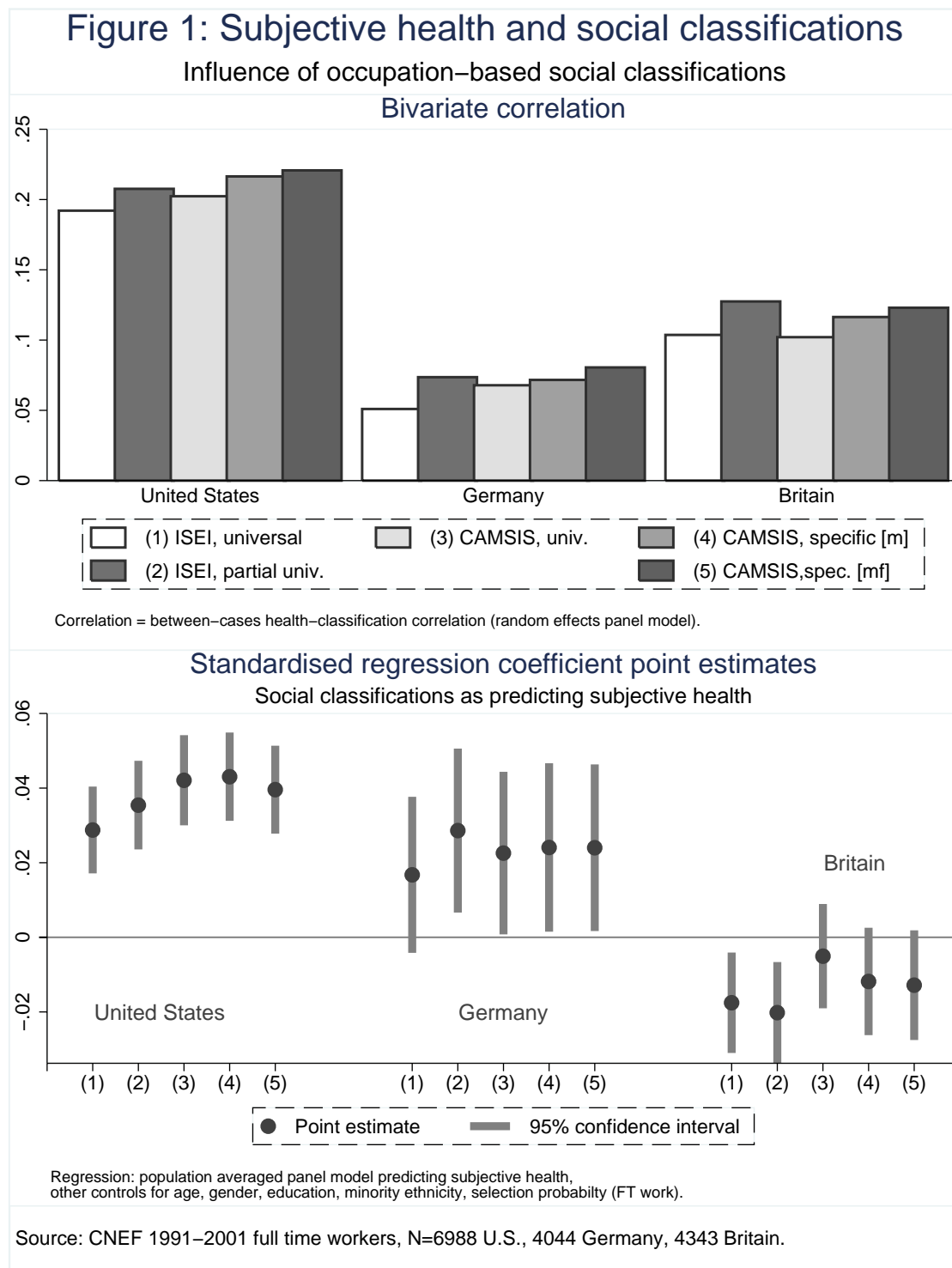
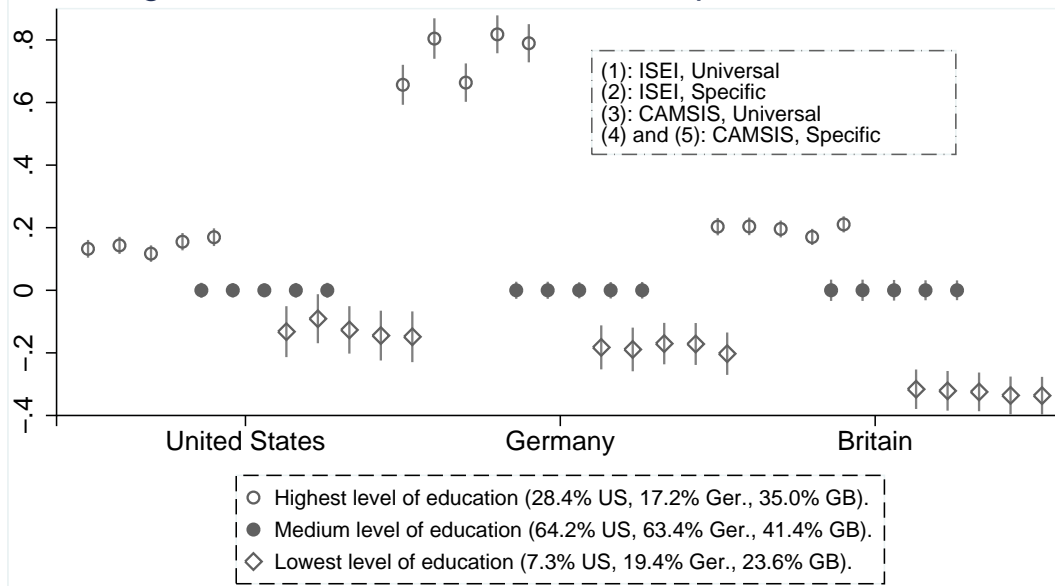


Figure 2: Education effects on occupational attainment



Source: CNEF Data as Figure 1. Estimates for 5 different social classification outcomes (1. to 5. of Fig. 1). Graph shows standardised regression coefficient predicts social classification, plus quasi-variance 99% comparison interval. Model: Population averaged panel, controls for quadratic age, gender, gender\*age, subjective health, minority ethnicity, marital status, and Heckman selection effect for full time working.

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<sup>1</sup> By contrast, European and American sociological research has been dominated by pluralistic approaches to occupation-based social classifications, with more and more schemes produced and offered as potential tools of analysis, but with little direct attention to the extent of universality or specificity. Specialists in stratification methodology have been almost exclusively critical of such pluralism (e.g. Bechhofer 1969; Marsh 1986; Hout and DiPrete 2006), as it is seen to impede consistency and comparability in research (also Bollen et al., 2001; 't Mannetje and Kromhout, 2003). Indeed the force of pluralism is well illustrated by the context of Hout and DiPrete's (2006) article, which advocates a universal approach. It is published within a journal issue surrounded by five other articles which use occupation-based social classifications, but which each use different measures, and never the measure advocated by Hout and DiPrete.

<sup>2</sup> Lambert et al (2005) used data from the Luxembourg Income Study ([www.lisproject.org](http://www.lisproject.org)); The CHER panel survey project (<http://www.ceps.lu/cher/accueil.cfm>); the International Social Survey Programme ([www.issp.org](http://www.issp.org)); and the European Social Survey ([www.europeansocialsurvey.org](http://www.europeansocialsurvey.org)).