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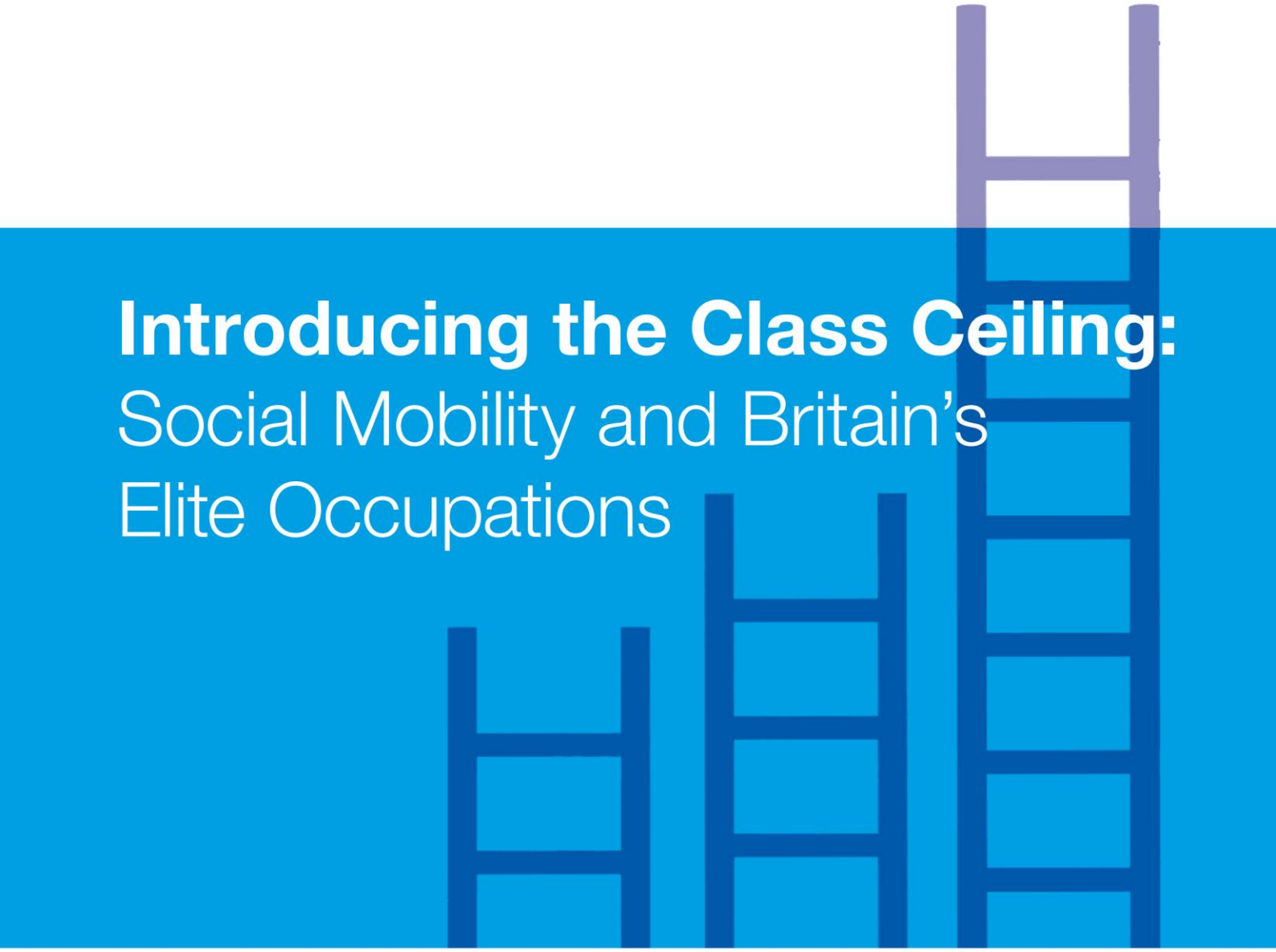

# Introducing the Class Ceiling: Social Mobility and Britain's Elite Occupations

LSE Sociology Department Working Paper Series

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**Abstract**

Most research on social mobility focuses on entry into Goldthorpe-inspired large occupational classes; it thus misses both important distinctions between occupations that are grouped together, and social origin differences in individual success within those occupations. This paper takes advantage of newly released large-scale social origin data (from the UK Labour Force Survey) to examine the relative openness of different 'elite' occupations, and the earnings of the upwardly mobile within those occupations. In terms of access, we find a distinction between 'traditional' professions, such as law, medicine and finance, which are dominated by the children of higher managers and professionals, and more technical high-status occupations such as engineering and IT that recruit more widely. However, even when those who are not from professional or managerial backgrounds are successful in entering elite occupations, we find that they have significantly lower earnings, on average, than those from privileged backgrounds. This class-origin pay gap among higher managers and especially higher professionals persists even net of a variety of important predictors of earnings. These findings underline the value of investigating differences in mobility rates *between* individual high-status occupations as well as illustrating how, beyond entry, the mobile often face considerable disadvantage *within* occupations, and point to the possibility of a 'class ceiling' of class-based discrimination.

**Introduction**

In sociology, there is a rich history of research looking at social mobility into elite occupations (Stanworth and Giddens 1974; Heath 1981; Hout 1984; Lipset and Bendix 1992). However, in recent decades this line of enquiry has been largely abandoned as researchers have increasingly focused their attention on debates surrounding *generalised rates* of mobility and how best to interpret them (Bukodi et al. 2014). Moreover, when looking at these generalised rates, most sociologists have followed the lead of Goldthorpe and concentrated on examining mobility into 'big classes' such as the EGP schema in the US or the National Statistics Socio-economic Classification (NS-SEC) in the UK. In many national contexts we therefore know a great deal about mobility into large categories of high-status occupations but little about the potential differences that exist *between* elite occupations. This gap in sociological enquiry is even more surprising, in a British context, considering that the issue of 'fair access' to traditional elite occupations remains a key political issue (Milburn, 2012; 2014) and a reoccurring theme in media discourse.

It is also striking that nearly all sociological research - in Britain and beyond – tends to conceptualise social mobility as an issue of occupational *access*. While access is clearly important, one problem with this approach is that it tends to imply that *entry* into a particular occupation constitutes the end point of a person's mobility trajectory. As such, this work necessarily misses important *intra-occupational* distinctions between the upwardly mobile and the intergenerationally stable.

The issue of differences in career success has, however, been extensively interrogated in research looking at the work trajectories of woman and ethnic minorities (e.g. Chambliss 2004, Cohen et al 2009, Petersen & Saporta 2004). This has uncovered significant hidden barriers for these groups, in terms of both earnings and occupational position, and has led to the widespread acceptance of the 'glass ceiling' concept in political and elite occupational discourses (McGovern et al, 2007; Davies, 2011; Babcock and Lashever, 2003).

Curiously, however, such enquiry has rarely extended to examining the effect of social class background on intra-occupational trajectories. While many individuals from working-class backgrounds may secure admission into elite occupations, this does not mean they necessarily achieve the same levels of success as those from more privileged backgrounds. In fact, research and theory both suggest that when individuals do experience upward mobility they may face challenges due to class bias, disadvantages in social and cultural capitals, or a sense of dislocation (Friedman, 2015, Bourdieu, 1984; Rivera, 2012; Skeggs, 1997; Friedman Laurison, Miles, 2015).

This article therefore capitalises on newly released UK Labour Force Survey Data to address these underexplored areas, providing the first large-scale and representative study of social mobility *into* and *within* British elite occupations since Heath's seminal (1981) *Social Mobility.* The article investigates two key research questions. First, we examine whether upward mobility is more common into some British elite occupations than others. Second, we move beyond the issue of occupational 'access' and instead examine how the upwardly mobile fare once they have entered elite occupations. In particular, we ask, do the mobile reach the same levels of income as those from more privileged backgrounds or do they face the same kind of earnings disadvantage traditionally faced by women and ethnic minorities?

## Background and Theory

### *Mobility into Britain's elite occupations*

Over the last 20 years the goal of increasing social mobility has become a rare point of convergence among Britain's political parties (Milburn, 2012). At the root of this is a widely-held anxiety that mobility is declining. This concern has been fuelled by economists who point toward a significant decrease in upward income mobility (Blanden et al, 2004; 2005; 2007). However, their findings have been strongly disputed by sociologists (Goldthorpe and Jackson, 2007; Goldthorpe, 2013) who have stressed the importance of measuring mobility in terms of occupational class rather than income, and using this approach find that relative mobility rates have remained fairly constant.

This heated debate remains central, but has detracted attention from key issues that we take up in this article. In particular, the focus has remained fixated on *general aggregate* mobility rates (or inflow and outflow rates into 7 NS-SEC categories) rather than examining how rates of mobility vary among smaller groups, such as elite occupations. This more focused approach did historically play a central role in 'status-attainment' approaches to class (Razzel, 1963; Blau and Duncan, 1967; Halsey and Crewe, 1969; Boyd, 1973; Stanworth and Giddens, 1974; Bielby, 1981; Heath, 1981). However, it was effectively critiqued in the 1970s by Goldthorpe (1980), who argued that status attainment approaches failed to place elite mobility within the context of broader shifts in the post-war class structure, particularly the 'more room at the top' expansion of professional and managerial jobs.

Goldthorpe's critique was rightly influential but it has also acted to inadvertently stymie more minute and specific analyses of mobility into particular occupations. Whilst it is clearly inadequate to examine inflow into elite occupations as if this is the only, or even main, task for social mobility research, we contend that it remains a pivotal question to explore empirically, particularly in a contemporary context where the power and resources of those at the top of the British social hierarchy are becoming more entrenched (Dorling, 2014; Piketty, 2014).

There are also two important conceptual reasons for reviving this kind of analysis. First, in the process of aggregating all elite occupations into the 'big class' category of NS-SEC 1, the specific dynamics of occupational or sectoral contexts are hidden. In turn, Individual elite occupations with distinct histories, work and market situations, entry requirements and recruitment structures are then problematically classified together (Grusky and Weeden, 2008). Second, and linked to this, examining mobility into NS-SEC 1 masks a potentially important distinction between management and the professions. Although NS-SEC does officially distinguish between these two elite occupational sectors, distinguising NS-SEC 1.1 ('large employers and higher managerial and administrative occupations') from NS-SEC 1.2 ('higher professional occupations'), extraordinarily these sub-categories are almost never operationalised in contemporary mobility studies (for notable exemplars of this omission - see Bukodi et al, 2015; Li and Devine, 2012; Goldthorpe and Mills, 2008). This acts to disguise

an important historical division between these two sectors, particularly in a British context. Unlike many capitalist nations where a unified 'service class' emerged in the 19th century, Britain developed rather differently. As Savage et al (1992) outline, over the course of the 19th century a distinct professional class emerged which was buttressed, in terms of prestige and cultural legitimacy, by the state. In contrast, when a managerial sector began to develop at the beginning of the 20th century, this assumed a 'subordinate' position within the service class, lacking cultural capital and dependent on capitalist employers. Savage et al (1992) go on to argue that this historical legacy continued to set these two sectors apart, with the professions enjoying greater job security and cultural capital. There is therefore good reason to explore whether these groups remain distinct in terms of their ability to reproduce themselves.

The question of how to develop a more occupationally-sensitive analysis of social mobility *has* been extensively addressed in the US, particularly by Grusky, Weeden and their various collaborators (e.g. Grusky and Sorensen 1998; Jonnson et al, 1999; Grusky and Weeden 2002). Combining Durkheimian and Marxian perspectives, Grusky and Sorensen (1998) make 'the realist claim that occupations are often *gemeinschaftlich* communities as well as positional sources of exploitation and inequality'. It is thus at the localized level of disaggregated occupational groups that the key processes of class formation – social closure and reproduction, identification and awareness, collective mobilization and exploitation - can most clearly be seen to emerge. Drawing on US surveys with large sample sizes, these authors demonstrate that distinctive differences in mobility exist *between* individual occupational groups, which they argue should subsequently be understood as 'micro-classes' (Grusky and Weeden 2001, 2008; Weeden and Grusky 2005; 2012).

This more nuanced approach to measuring mobility rates has not yet been matched in the UK. While there remains a strong intellectual interest in the issue of closure among groups such as the 'super-rich' (Majima and Warde, 2008), the 'top 1% of earners' (Dorling, 2012), the 'Establishment' (Jones, 2014) and the 'cultural elite' (Griffiths et al, 2008), empirical work has been restricted to small-scale or qualitative enquiry. Moreover, the kind of large-scale representative data sets used by Grusky and others (i.e containing large sample sizes and detailed social origin data) have simply not been available in the UK. Indeed, it is

striking that not since Anthony Heath's *Social Mobility*, published in 1981, has a sociological study of British intergenerational mobility reported mobility rates into *particular* elite occupations.

In this way, the newly released data we draw on here provides an unprecedented opportunity to update Heath's findings and understand the openness of Britain's elite occupations in the contemporary era. In its July-September 2014 quarterly survey the LFS, the largest representative sample of employment in the UK (n=95,950), included for the first time detailed questions on parental occupation. Drawing on the addition of this social origin variable, we first examine the mobility rates into individual elite occupations in Britain, and ask whether mobility is more common into some sectors or occupations than others.

***Class and the 'Glass Ceiling'***

Another by-product of the dominant focus on big-class mobility rates is that it reduces social mobility to a one-dimensional measure of occupational *entry*. More specifically, it simply compares two (or occasionally three) moments in a respondent's life - i.e. social origin, current job and occasionally also first job (Goldthorpe, 1980; Erikson and Goldthorpe, 1992) - and therefore tells us little about the *intra-occupational trajectories* of the socially mobile and how this compares to those from stable backgrounds (Abbott, 2001). For example, while these individuals may secure admission into elite occupations, this does not mean they necessarily earn the same, or achieve the same levels of success, as those from more privileged backgrounds (Buhlmann, 2008).

The issue of relative success *within* occupations has been much more effectively explored in relation to the experiences of women and ethnic minorities in elite occupational settings. Here studies have consistently demonstrated the considerable hidden barriers, or 'glass ceilings', that women and ethnic minorities face in elite occupations (Davies, 2011; Puwar, 2004; Cohen and Huffman 2007; Majima and Warde, 2008). Such barriers manifest in myriad forms. First, there is reliable evidence that a 'gender pay gap' exists in most elite occupations, even when a slew of demographic variables are controlled for. The same is true for certain ethnic groups (Wilson et al 1999). Other research points to the lack of

women in senior positions in fields as diverse as academia, law, culture and business (Hagan and Kay 1995; Heinz and Laumann 1982; Cohen et al 2009; Reskin and McBrier 2000; Griffiths et al, 2008).

While questions of class origin are largely absent from work on 'glass ceilings' or pay gaps, there *is* some evidence that when individuals experience upward mobility they rarely reach the very top of their fields. This is particularly clear in research that focuses on forms of economic, social and cultural capital, rather than occupational class. Blanden et al's (2007) work on income mobility in Britain, for example, has repeatedly illustrated how those who are upwardly mobile from poorer backgrounds rarely earn the very highest incomes. Similarly, Li et al (2008) find that those who are upwardly mobile into the service class have lower levels of both 'bonding' and 'bridging' social capital than those born into this class. And finally, a number of studies (Daenekindt and Roose, 2011; Flemmen, 2013) have all highlighted how the upwardly mobile generally lack the same resources of cultural capital as those born into privileged backgrounds. This is most acute in terms of a deficit in what Bourdieu (1986) terms 'embodied cultural capital' (i.e. legitimate ways of speaking, dressing, being etc.), which often operate as 'tacit requirements' in elite occupations and can be powerful in structuring how individuals are evaluated, particularly through notions of 'soft skill' competency (Puwar, 2004; Rivera, 2012). Moreover, such embodied resources are hard to simply 'acquire' and are instead inextricably linked to dispositions inherited by children from privileged backgrounds (Bourdieu, 1986; Friedman, 2012; Lareau 2003).

This relative deficit in capitals before, and during, upward mobility may also have implications for the way the mobile *experience* trajectories into elite occupations. A wealth of qualitative research (Reay, 1997; Lawler, 1999) suggests that the upwardly mobile often have different ambitions and aspirations than those from more privileged backgrounds and sometimes associate success with anxiety over abandoning familial ties and class-cultural origins. Indeed, our own work (Friedman, 2012; 2015) suggests that the experience of upward mobility, particularly in its most abrupt and long-range forms, is often associated with significant hidden injuries. The upwardly mobile are frequently left with a troubling emotional sense that they are between two worlds or 'culturally homeless'.

***A Class Ceiling?***

While studies on the experience of mobility and its relationship to various types of capitals are illuminating, they tend to be small, based outside the UK, or focus on generalised upward mobility. In recent work, though, we have begun to directly address the issue of intra-occupational differences (by social origin) within British elite occupations (Friedman, Laurison and Miles, 2015). Drawing on the self-selecting but unusually large sample (n = 161,400) provided by the Great British Class Survey (GBCS), we find that even when those from routine/semi-routine backgrounds do successfully enter elite occupations, they are less likely to accumulate the same economic, cultural and social capital as those from privileged backgrounds. While many such differences can be explained by inheritance, we also find that the mobile have considerably lower average incomes, pointing toward the kind of 'glass ceiling' normally associated with women and ethnic minorities (Arlumpen et al, 2007; Davies, 2011; Puwar, 2004). Indeed, even when controlling for education, location, age, and cultural and social capital, we find that the upwardly mobile have, on average, considerably lower annual incomes (£8-14k) than higher-origin colleagues.

While these results point toward lingering and previously unrecognised disadvantage within elite occupations by class origin, the GBCS data have three important limitations. First, the GBCS was a self-selecting web-based survey, with over-participation by the highly educated, those living in London and those in managerial and professional employment (Savage et al, 2013). This means it is not possible to make formal inferences. Second, the income question in the GBCS was insufficiently precise: it asked about net annual household income in wide bands. Finally, the GBCS lacked detailed questions concerning respondents' employment

In this regard, the nationally representative nature of the Labour Force Survey (LFS) along with its detailed and accurate measures of individual earnings (including both gross and net earnings, based on asking respondents to read from their latest paystub), facilitates a much more in-depth investigation into whether, beyond entry, the mobile continue to face lingering disadvantage within elite occupations. Specifically in our second research question it allows us to examine not just the relationship between origin and income, but

also how this relationship varies according to hours worked, firm size, industry type, public vs private sector, and job tenure.

**Data & Methods**

We draw here on newly-released data (November 2014) from the UK Labour Force Survey that provides, for the first time, detailed information about parental occupation. Drawing on this social origin variable we begin by examining the parental occupations of respondents in different 'elite' occupations. While the polysemic nature of the term 'elite' makes it difficult to define a set of uncontested 'elite occupations', Rose (2013) argues that the best existing measure in Britain is provided by Class 1 of the National Statistics Socio-economic Classification (NS-SEC) - denoting 'Higher managerial, administrative and professional occupations'[1]. We therefore begin our analysis by examining NS-SEC 1, before drilling down to look at the 63 individual SOC 2010 four-digit occupations contained *within* NS-SEC 1[2]. When examining these individual elite occupations, we also include 'media professionals', as this occupational group is routinely associated with the British elite in policy discourse (Milburn, 2014), although officially classed as NS-SEC 2.

Throughout the article our analysis draws on both the 63 individual occupations and also on 16 larger occupational groups. Our goal in creating these was to account for occupational groupings with similar training, skills and work contexts (Hout 1984), while also having a sufficiently large n within each group to allow for meaningful inference. Drawing on the work of Weeden and Grusky (2005), 10 of the groups can be conceptualised as micro-classes. Two of these are composed of one occupation each (medical practitioners and higher education teachers, both of which have their own SOC 2010 code), and then eight additional groups are made up of very closely related occupations: law, engineering, scientists, accountants, IT professionals, finance managers, media professionals and protective civil servants. The remaining six occupational groups are necessarily more ad-hoc, but have been grouped so as

[1] The NS-SEC was developed from a sociological classification known as the Goldthorpe Schema (see Goldthorpe 1980/1987, 2007; Erikson and Goldthorpe 1992) and is now widely used in both official statistics and academic research in the UK.

[2] These are the 60 SOC 2010 codes assigned to NS-SEC 1 in the ONS's simplified analytic scheme, plus three additional occupations (taxation experts, information technology and telecommunications directors, and functional managers and directors n.e.c, and ) with more than 10 LFS respondents assigned to NS-SEC 1.

to be as coherent as possible. The individual occupations and occupational groups are presented in Table 2 below.

It is important to explain how we operationalise social mobility into elite occupations. In order to measure respondent's social origin we refer to the LFS question asking respondents aged over 16 the occupation of the main earner parent when they were 14[3]. We then group respondents' social origin into four categories: NS-SEC-1 (higher managers and professionals), NS-SEC 2 (lower managers and professionals), NS-SEC 3, 4 and 5, (intermediate and clerical occupations, occupations which are normally self-employed, and technically skilled and craft occupations) and NS-SEC 6 and 7 (routine and semi-routine occupations, often called the 'working class'). Focusing on respondents currently in NS-SEC 1 elite occupations, we thus use the four origin groups to categorise each respondent as either occupationally stable, short-range upwardly mobile, mid-range mobile, or long-range mobile, respectively. We also use respondents' parents' specific occupations to identify those who are in the same occupational group as their main income-earning parent. We code these respondents as 'micro(class)-stable' and occasionally we refer to those who are stable in elite occupations but not in the same group as their parents as the 'macro(class)-stable.

We draw on a sample of 95,950 respondents from the July-September 2014 LFS Wave. We remove all those under 23 and in full-time education from the analyses. We also omit those over 69, as the LFS collects data on those over 69 differently, since most people in this age group have moved into retirement. This leaves 43,444 respondents between the ages of 23 and 69, who have sufficient origin information to assign to one of the above groups, and 6,104 in NS-SEC 1 occupations. The LFS uses a rolling longitudinal design, where respondents are surveyed in each of five consecutive quarters, with a fifth of survey entering and another fifth leaving in each quarter. Not all questions are asked of each respondent in each quarter, however; most importantly for our purposes respondents only answer earnings questions in their first and final quarter in the survey. Thus, in order to access earnings data (as well as detailed information for respondents' social origins) we obtained a special licence for this

[3] We use Table 10 from http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec--rebased-on-soc2010--user-manual/index.html at ONS, the 'simplified scheme' to match parents'4-digit SOC2010 occupational codes to the analytic NS-SEC categorisation.

data. This allowed us to link records across four quarterly LFS questionnaires. This resulted in a sample of 3427 NS-SEC 1 respondents who also have earnings information[4].

Our analysis proceeds in three steps: first, we describe the social origins of those in different elite occupations; second, we compare the earnings averages of those in elite occupations according to their social origins; third, we examine the extent to which class origins predict earnings, modelling the predictors of earnings for the whole group, and for incumbents in each of the individual occupational groups. We also control for education, age, and other demographic and workplace variables known to be associated with earnings.

**Origins and Destinations**

We begin by providing the most up-to-date analysis of rates of social mobility into Britain's elite occupations. Table 1 demonstrates the distribution of social origins of LFS respondents age 23-69 in NS-SEC 1 occupations, using the survey weight provided, as well as the sub-categories of NS-SEC 1.1 and 1.2:

Table 1 indicates three key findings. First, it indicates that rates of mobility into elite occupations in 2014 are broadly similar to those found in the previously most up-to-date analysis - the 2005 General Household Survey data (Li and Devine, 2009). However, our results do suggest that rates of absolute upward mobility into elite occupations are *marginally higher* now than in the 2005 data - 50% of those in elite occupations in 2014 come from non-professional or managerial backgrounds (NS-SEC 1 and 2) compared to 46% in the GHS[5]. Second, Table 1 demonstrates that those in elite occupations are *disproportionately* drawn from elite occupational backgrounds. More specifically, those from NS-SEC 1 backgrounds are nearly twice as common in NS-SEC 1 as in the general population (27.2% vs 14.7%), while the relationship for people with parents who worked in routine or semi-routine employment is reversed: they constitute 31.7% of the population but only 17% of NS-SEC 1. It

[4] The Labour Force survey provides a number of measures of earnings. We use weekly gross earnings, a constructed variable provided by LFS based on the respondent's earnings over their reported pay period. We also analysed hourly earnings and logged weekly income (analyses available upon request) and obtained substantively similar results.

[5] To make an effective comparison with the GHS data we used the same parameters, comparing only those age 25-59; see table A2 in the Appendix

is clear, then, that Goldthorpian 'big class' origins are strongly associated with 'big class' destinations.

**Table 1: Class Origins and Destinations, NS-SEC 1, 1.1, 1.2, 2, and All Others**

| | *Respondent's NS-SEC Group* | | | | |
|---|---|---|---|---|---|
| | **1** | **1.1** | **1.2** | **2** | **3 - 7** |
| *Main income earner's NS-SEC Group* | NS-SEC 1 ALL | HIGHER MANAGERS | HIGHER PROFESSIONALS | LOWER MANAGERS & PROFESSIONALS | ALL OTHERS |
| 1: Higher Manager & Professional parents *(14.7% of population)* | 27.2% | 23.7% | 28.3% | 19.0% | 9.9% |
| 2: Lower Manager & Professional parents *(15.7% of population)* | 21.1% | 18.0% | 22.0% | 21.0% | 12.2% |
| 3 to 5: Intermediate Position Parents *(37.9% of population)* | 34.7% | 39.1% | 33.4% | 36.5% | 39.3% |
| 6 & 7: Routine & Semi-Routine Occupation Parents *(31.7% of population)* | 17.0% | 19.2% | 16.3% | 23.6% | 38.7% |
| *total* | *100%* | *100%* | *100%* | *100%* | *100.0%* |
| *percent of population* | *14.5%* | *3.4%* | *11.1%* | *25.5%* | *60.0%* |
| *n* | *6,104* | *1,464* | *4,640* | *10,906* | *26,434* |

**Note:** Total n = 43,444. Ages 23-69, not in full time education. Respondents missing origin or NS-SEC categorisation are excluded from the analysis. Percentages above the *total* row are column percentages: they give the percent of respondents *from* each origin *in* each NS-SEC Class or grouping. Percentages calculated using survey weights; ns are actual, unweighted number of respondents in category.

One of the main advantages of the new LFS data is that it also allows us to move beyond big classes, or even class sectors, toward a more fine-grained analysis of mobility into *individual* elite occupations. Table 2 (and Figure 1) display rates of mobility into the 63 elite occupations that make up NS-SEC 1 (plus media professionals). Table 2 and Figure 1 are both sorted by the relative 'openness' of the 16 main occupational groups. The first column of Table 2 also reports rates of intergenerational 'micro-class' reproduction for each of these occupational groups – that is where occupational group *destination* directly matches parental occupational

group *origin* (e.g respondents in law whose parents were also in law). Figure 1 illustrates the extent to which each origin group is over- or under-represented in each of the occupational destination groups as compared to their prevalence in the population as a whole; that is, a value of 1 for long-range mobile would indicate that the same proportion of people from working-class backgrounds are in that occupational group as there are in our target population (23 to 69 year olds in employment).

Table 2 and Figure 1 demonstrate that NS-SEC 1 is by no means a coherent 'class' in terms of social mobility. On the contrary, there is tremendous diversity in the exclusiveness of different elite occupations in Britain. First, it is possible to detect a pattern of distinct micro-class reproduction, where children with parents in certain occupations, such as medicine and law, are 21.6 and 18.9 times (respectively) more common in these fields than in the population as a whole. On the other hand, rates of micro-class reproduction are much lower in other elite occupational groups; children of engineers, for example, are only a little more than 3 times as common in engineering as elsewhere. Second, Table 2 illustrates that the *broader* social origins of those in different elite occupations also varies considerably. For example, while 53% of doctors are the children of higher managers and professionals, only 16% of senior public sector managers and professionals have similarly privileged roots.

Echoing the recent results of Friedman et al (2015), Figure 1 and Table 2 also suggest a telling distinction within elite occupations between the traditional and the technical. For example, the traditional—even 'gentlemanly' (Miles and Savage, 2012)—professions of law, medicine, finance, life science, academia, science, and the media contain a particularly high concentration of those from elite occupational backgrounds, with the intergenerationally stable overrepresented by a factor of more than two in each case.

**Table 2: Social Origins of Adults (23-69) in Elite Occupations, ranked by percent stable**

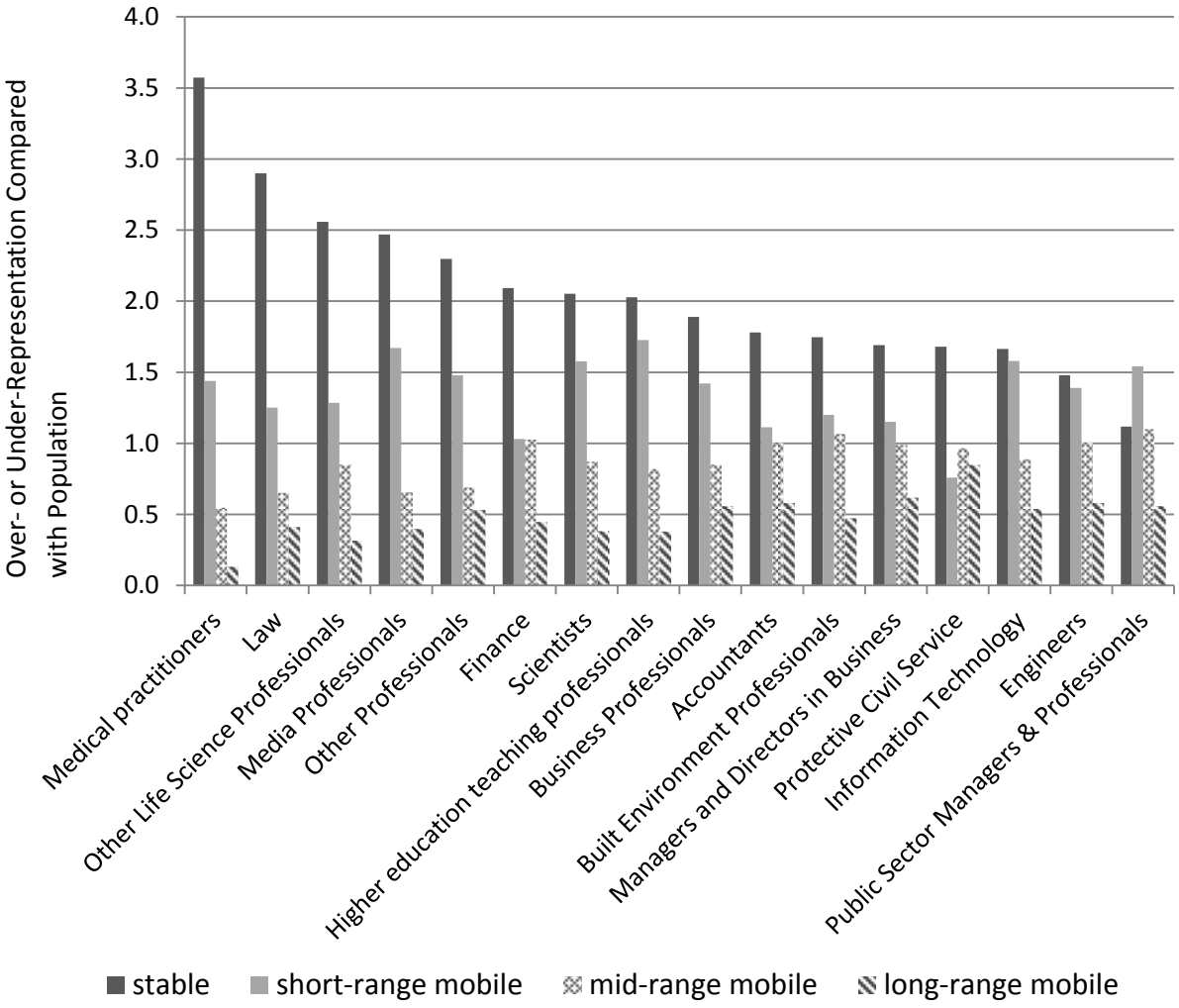
| | Micro-Stable | Inter-Generation-ally Stable | Short-range Mobile | Mid-range Mobile | Long-range Mobile | *n* |
|---|---|---|---|---|---|---|
| **Medical practitioners** | **17.7%** | **52.6%** | **22.6%** | **20.7%** | **4.2%** | ***259*** |
| **Law** | **8.5%** | **42.6%** | **19.6%** | **24.7%** | **13.0%** | ***214*** |
| Barristers & judges | | 54% | 23% | 17% | 6% | *34* |
| Legal professionals n.e.c. | | 42% | 18% | 22% | 19% | *53* |
| Solicitors | | 40% | 20% | 28% | 12% | *127* |
| **Other Life Science Professionals** | **3.0%** | **37.6%** | **20.2%** | **32.2%** | **10.0%** | ***180*** |
| Veterinarians | | 46% | 23% | 26% | 5% | *26* |
| Speech & language therapists | | 46% | 35% | 19% | 0% | *17* |
| Dental practitioners | | 43% | 20% | 31% | 6% | *46* |
| Psychologists | | 36% | 26% | 32% | 5% | *41* |
| Pharmacists | | 27% | 10% | 40% | 23% | *50* |
| **Media Professionals** | **0.8%** | **36.3%** | **26.2%** | **24.9%** | **12.6%** | ***127*** |
| Journalists, newspaper & periodical editors | | 39% | 24% | 26% | 11% | *71* |
| Public relations professionals | | 33% | 29% | 23% | 15% | *56* |
| **Other Professionals** | **6.1%** | **33.8%** | **23.2%** | **26.2%** | **16.8%** | ***146*** |
| Aircraft pilots & flight engineers | | 44% | 21% | 18% | 17% | *31* |
| Clergy | | 34% | 17% | 31% | 18% | *58* |
| Environment professionals | | 34% | 19% | 31% | 16% | *39* |
| Environmental health professionals | | 11% | 57% | 16% | 16% | *18* |
| **Finance** | **5.0%** | **30.8%** | **16.2%** | **38.9%** | **14.2%** | ***249*** |
| Brokers | | 37% | 16% | 33% | 14% | *41* |
| Financial managers & directors | | 29% | 16% | 40% | 14% | *207* |
| Finance & investment analysts & advisers | | | | | | *1* |
| **Scientists** | **2.4%** | **30.2%** | **24.8%** | **33.0%** | **12.1%** | ***247*** |
| Biological scientists & biochemists | | 33% | 16% | 35% | 16% | *135* |
| Physical scientists | | 33% | 37% | 25% | 5% | *33* |
| Social & humanities scientists | | 30% | 18% | 52% | 0% | *16* |
| Natural & social science professionals n.e.c. | | 26% | 48% | 16% | 9% | *28* |
| Chemical scientists | | 21% | 26% | 39% | 14% | *35* |
| **Higher education teaching professionals** | **4.1%** | **30%** | **27%** | **31%** | **12%** | ***164*** |
| **Business Professionals** | **2.3%** | **27.8%** | **22.3%** | **32.2%** | **17.7%** | ***949*** |
| Business & related research professionals | | 33% | 31% | 23% | 13% | *43* |
| Management consultants & business analysts | | 29% | 27% | 32% | 12% | *195* |
| Business & financial project mngmnt profs | | 28% | 23% | 34% | 15% | *226* |
| Sales accts & business development mngrs | | 27% | 19% | 32% | 22% | *443* |
| Research & development mngrs | | 26% | 17% | 41% | 16% | *42* |
| **Accountants** | **1.5%** | **26.2%** | **17.5%** | **38.0%** | **18.4%** | ***323*** |
| Taxation experts | | 29% | 12% | 28% | 30% | *39* |
| Chartered & certified accountants | | 29% | 18% | 40% | 13% | *217* |
| Insurance underwriters | | 17% | 19% | 43% | 22% | *35* |
| Actuaries, economists & statisticians | | 17% | 18% | 32% | 33% | *32* |

**Table 2, Continued**

| | Micro-Stable | Inter-Generationally Stable | Short-range Mobile | Mid-range Mobile | Long-range Mobile | *n* |
|---|---|---|---|---|---|---|
| **Built Environment Professionals** | **4.7%** | **25.7%** | **18.9%** | **40.5%** | **15.0%** | ***150*** |
| Architects | | 29% | 18% | 43% | 10% | *62* |
| Chartered surveyors | | 24% | 18% | 40% | 18% | *57* |
| Town planning officers | | 22% | 22% | 36% | 19% | *31* |
| **Managers & Directors in Business** | **8.3%** | **24.9%** | **18.1%** | **37.4%** | **19.6%** | ***773*** |
| Advertising & public relations directors | | 50% | 30% | 15% | 5% | *16* |
| Purchasing mngrs & directors | | 39% | 7% | 46% | 8% | *48* |
| Functional mngrs & directors n.e.c. | | 35% | 18% | 26% | 21% | *64* |
| Chief executives & Snr officials | | 31% | 17% | 42% | 9% | *55* |
| Marketing & sales directors | | 30% | 22% | 35% | 12% | *86* |
| Human resource mngrs & directors | | 28% | 16% | 39% | 18% | *111* |
| Production mngrs & dirs in mining & energy | | | | | | *7* |
| Production mngrs & dirs in manufacturing | | 18% | 19% | 37% | 27% | *326* |
| Property, housing & estate mngrs | | 15% | 20% | 47% | 18% | *60* |
| **Protective Civil Service** | **8.4%** | **24.7%** | **11.9%** | **36.6%** | **26.8%** | ***82*** |
| Officers in armed forces | | 39% | 3% | 43% | 16% | *26* |
| Snr offcrs in fire, amblnc, prison & rel. srvcs | | 23% | 11% | 25% | 42% | *24* |
| Snr police officers | | 22% | 6% | 50% | 22% | *18* |
| Probation officers | | 6% | 37% | 28% | 29% | *14* |
| **Information Technology** | **2.3%** | **24.5%** | **24.8%** | **33.7%** | **17.1%** | ***736*** |
| IT & telecommunications directors | | 31% | 13% | 42% | 14% | *38* |
| IT project & programme mngrs | | 26% | 31% | 30% | 13% | *95* |
| IT specialist mngrs | | 25% | 23% | 33% | 19% | *222* |
| Programmers & software development profs | | 24% | 26% | 35% | 16% | *271* |
| IT bus. analysts, architects & systms designers | | 21% | 25% | 32% | 22% | *110* |
| **Engineers** | **8.8%** | **21.8%** | **21.8%** | **38.1%** | **18.4%** | ***452*** |
| Mechanical engineers | | 31% | 19% | 32% | 17% | *87* |
| Civil engineers | | 27% | 19% | 39% | 16% | *90* |
| Engineering professionals n.e.c. | | 19% | 16% | 39% | 26% | *119* |
| Electronics engineers | | 18% | 25% | 42% | 15% | *32* |
| Design & development engineers | | 16% | 26% | 43% | 15% | *87* |
| Electrical engineers | | 12% | 40% | 33% | 15% | *37* |
| **Public Sector Managers & Professionals** | **1.1%** | **16.4%** | **24.2%** | **41.7%** | **17.7%** | ***298*** |
| Education advisers & school inspectors | | 24% | 24% | 30% | 22% | *38* |
| Snr profs of educational establishments | | 18% | 25% | 39% | 18% | *126* |
| Health servcs & public health mngrs & dirs | | 17% | 16% | 48% | 19% | *66* |
| Social servcs mngrs & directors | | 11% | 29% | 44% | 16% | *59* |
| Elected officers & representatives | | | | | | *9* |

**Note:** Percentages for stable include the micro-stable. All percentages calculated using recommended survey weights. n=5349 (some respondents who can be classed as NS-SEC 1 do not have 4-digit SOC 2010 codes and cannot be included here). Occupations with fewer than 10 respondents are included in totals, but not broken down by origin.

**Figure 1: Over-and Under-representation of Social Origins in Elite Occupations**




**Note:** n=5,349. Sorted by highest to lowest over-representation of inter-generationally stable. Height of bars is ratio of the percentage of people whose parents were in occupations which would be categorized as NS-SEC 1 in each occupational group to the percentage of people in the population of interest (employed persons 23-69 with origin information) with parents in NS-SEC 1 occupations (14.7%); values over 1 indicate over-representation, a value of exactly 1 would mean people from a given social origin are no more or less likely to be found in that occupational group than in the rest of the population.

Similarly, Table 2 also illustrates that these traditional professionals are among the most 'closed' to those from non-elite backgrounds: less than 7% of doctors, barristers, judges, vets, dentists or psychologists, for example, are from routine or semi-routine working class origins[6]. In contrast, we can identify a set of technical professions in the form of engineering,

[6] While the exact delineation of 'working class' is a subject of some debate (Bennett et al, 2008; Savage et al, 2015), we will use the term here to denote people whose parents were in routine or semi-routine occupations.

IT and the built environment that contain a higher than average[7] proportion of those who have been upwardly mobile. Furthermore, in certain public sector occupations, such as public sector managers and protective civil servants, the majority have *not* come from professional or managerial backgrounds[8].

**Introducing the Class Ceiling**

While our analysis so far has demonstrated wide variations in the openness of different elite occupations, it does not tell us how those from lower origins fare relative to others *within* elite occupations. We are particularly interested in whether the upwardly mobile, once they have entered elite occupations, earn the same incomes as those from privileged backgrounds. To tap this intra-occupational question, we analyse LFS data on weekly gross earnings. While earnings do not necessarily provide a definitive measure of occupational position, or level of prestige, it is the best available proxy and also an important marker of success in its own right. Figure 2 therefore shows the average weekly gross earnings of respondents in elite occupations (NS-SEC 1), according to their social origins. It also distinguishes occupational destinations in terms of the 'micro-class stable' and between those in higher managerial (NS-SEC 1.1) and higher professional (NS-SEC 1.2) employment:

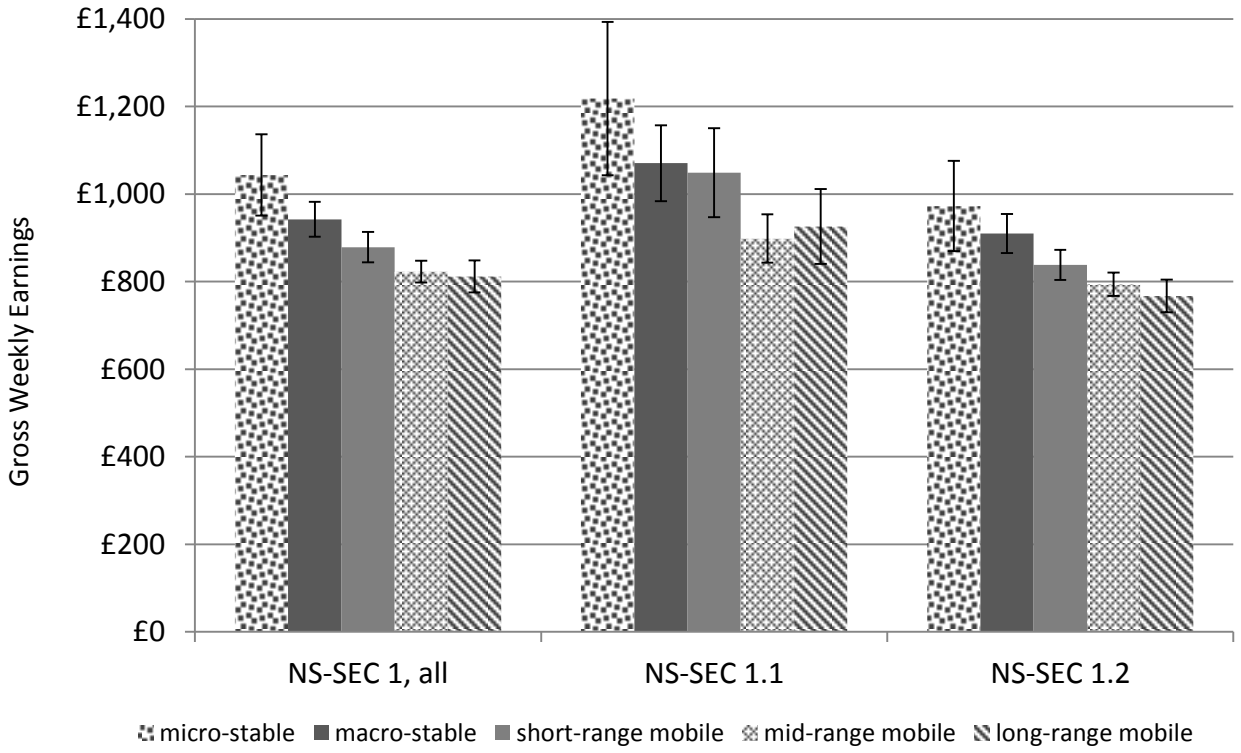
Figure 2 demonstrates that there are substantial and significant earnings differences among those in elite occupations, according to their social origin. Those who have been upwardly mobile into elite occupations earn less per week, on average, than those who have come from elite occupational backgrounds, and those who are in the same occupational group as their parents—the 'micro-stable'— have even higher average earnings. The difference between the micro-stable and the 'macro-stable'—that is, those who come from elite occupational origins but are in a *different* elite occupational group to their parent—is statistically significant in NS-SEC 1 as a whole, where the micro-stable earn an average of just over £100 more a week than the macro-stable. More importantly, the micro- and macro-stable combined earn on average £122 more a week than the upwardly mobile as a group, and £148 more a week than the long-range upwardly mobile, which translates to an average difference of £7700 (or roughly $11,500) in annual earnings. Figure 2 also reveals important

[7] For NS-SEC 1 as a whole

[8] Although the intergenerationally stable are still slightly overrepresented compared to the population as a whole.

differences between NS-SEC 1.1 and 1.2: the short-range mobile earn essentially the same income as the macro-stable among higher managers, while all upwardly mobile groups appear to face an earnings penalty among the higher professions.

**Figure 2: Differences in Earnings by Origin in NS-SEC 1**




**Note:** n=3,303 for all NS-SEC 1, 802 for NS-SEC 1.1, and 2501 for NS-SEC 1.2. All differences between each of the three upwardly mobile groups and the inter-generationally "macro"-stable significant at the p<.05 level, except for the difference between short-range mobile and stable in NS-SEC 1.1. The average earnings of the "micro"-stable are statistically significantly higher p<.05 than the "macro"-stable in NS-SEC 1 as a whole, but not when NS-SEC 1 is split into two groups.

Of course, a simple distribution of earnings averages cannot tell us whether the upwardly mobile face a 'class ceiling' or pay discrimination, or whether they are simply different from the intergenerationally stable in other respects. Thus, in order to disentangle some potential sources of these class-origin income differences, in Table 3 we show the results of a series of regressions on earnings among those in higher managerial and higher professional employment. Specifically, we regress weekly earnings on origins, controlling for educational qualifications, training, hours worked, job tenure, firm size, industry type, public vs private

sector, age (with a squared term), sex, ethnicity, region of the UK and degree of urbanity[9]. In the regressions reported in Table 3 we compare the three groups of upwardly mobile respondents to the intergenerationally stable[10].

**TABLE 3: Ordinary Least Squares Regression of Weekly Gross Income**

| | I | II | III | IV |
|---|---|---|---|---|
| | NS-SEC 1 Base | NS-SEC 1 All | NS-SEC 1.1 Higher Managers | NS-SEC 1.2 Higher Professions |
| Origins (vs Inter-generationally Stable) | | | | |
| Short-range Mobile | | -48.39* | 4.49 | -64.51** |
| Mid-range Mobile | | -103.94*** | -96.76* | -104.90*** |
| Long-range Mobile | | -119.12*** | -79.54 | -131.57*** |
| Educational Qualifications (vs University Degree) | | | | |
| Post-Graduate education | 53.41** | 47.30* | 74.19 | 33.19 |
| Less than University Degree | -205.72*** | -191.42*** | -280.79*** | -149.19*** |
| Job-Related Training last 3 months | 37.98** | 32.66* | -15.65 | 45.66** |
| Paid hours | 14.25*** | 14.21*** | 11.67*** | 15.30*** |
| Job Tenure | 2.39* | 2.72** | 3.08 | 3.06** |
| Professionals (vs Managers) | -120.66*** | -122.87*** | | |
| Public sector (vs Private) | -178.22*** | -178.65*** | -191.26*** | -179.19*** |
| Industry (vs Public admin, education and health) | | | | |
| Agriculture, forestry and fishing | -180.80* | -161.50* | -146.82 | -168.98* |
| Energy and water | 2.19 | 6 | 130.29 | -65.92 |
| Manufacturing | -44.89 | -44.89 | 47.99 | -83.54* |
| Construction | -122.03*** | -118.13*** | 4.4 | -151.11*** |
| Distribution, hotels and restaurant | -31.5 | -26.89 | 155.93 | -108.91** |
| Transport and communication | 81.23* | 83.32** | 107.12 | 55.59 |
| Banking and finance | 41.52 | 39.76 | 187.03*** | -18.04 |
| Other services | -190.50*** | -195.32*** | 5.31 | -294.94*** |
| Firm Size (vs less than 25 employees) | | | | |
| 25 to 49 | 141.69*** | 143.73*** | 287.32*** | 98.90** |
| 50 to 499 | 129.75*** | 130.33*** | 262.80*** | 94.96*** |
| 500 or more | 234.02*** | 230.71*** | 401.68*** | 177.34*** |
| Age (in years) | 62.87*** | 63.16*** | 69.78*** | 62.22*** |
| Age squared | -0.61*** | -0.61*** | -0.66*** | -0.60*** |

[9] See Appendix for definitions of all variables used in regressions.

[10] In models including micro-stable the contrast between the micro- and macro-stable is consistently positive, but not generally statistically significant. We focus here on the contrast between the upwardly mobile and the stable as a group, as that is the question we are most interested in.

**Table 3, Continued**

| | | | | |
|---|---|---|---|---|
| Female | -108.58*** | -108.96*** | -142.66*** | -105.27*** |
| Not White | -28.91 | -19.56 | -125.2 | 0.09 |
| Region & Urban (vs London) | | | | |
| Southeast Urban | -68.37* | -62.67* | -53.86 | -85.74** |
| Rest of UK Urban | -164.55*** | -152.97*** | -250.58*** | -136.80*** |
| SE Non-Urban | -6 | -5.77 | -49.81 | -2.07 |
| Rest of UK Non-Urban | -110.74*** | -99.67*** | -118.35* | -122.68*** |
| *Constant* | -906.1*** | -863.1*** | -1176.4*** | -1064.7*** |
| *n* | 3207 | 3207 | 780 | 2427 |
| *r2* | 0.337 | 0.347 | 0.368 | 0.353 |

**Note:** Cases missing data on any variable deleted from all models.

Once we have controlled for these factors, the class pay gap only remains consistently statistically significant among the higher professions[11]. Here the predicted income difference between the intergenerationally stable and the long-range mobile remains very high - £130/week, which translates to a predicted difference of £6773 (roughly $10,150) lower earnings per year. These findings indicate that even when the upwardly mobile are successful in entering the higher professions they often fail to achieve the same levels of success (in terms of earnings, at least) as those from more privileged backgrounds. Social origins are thus predictive not only of occupational destinations but they also predict earnings within those destinations, net of a host of factors known or believed to affect earnings, from human capital (educational qualifications, job tenure, and training) to a 'London effect' to gender bias (McGovern et al, 2007; Cunningham and Savage, 2015; Babcock and Lashever, 2003). This suggests that a powerful and previously undetected 'class ceiling' exists in Britain's elite occupations that is preventing the upwardly mobile from reaching the highest incomes.

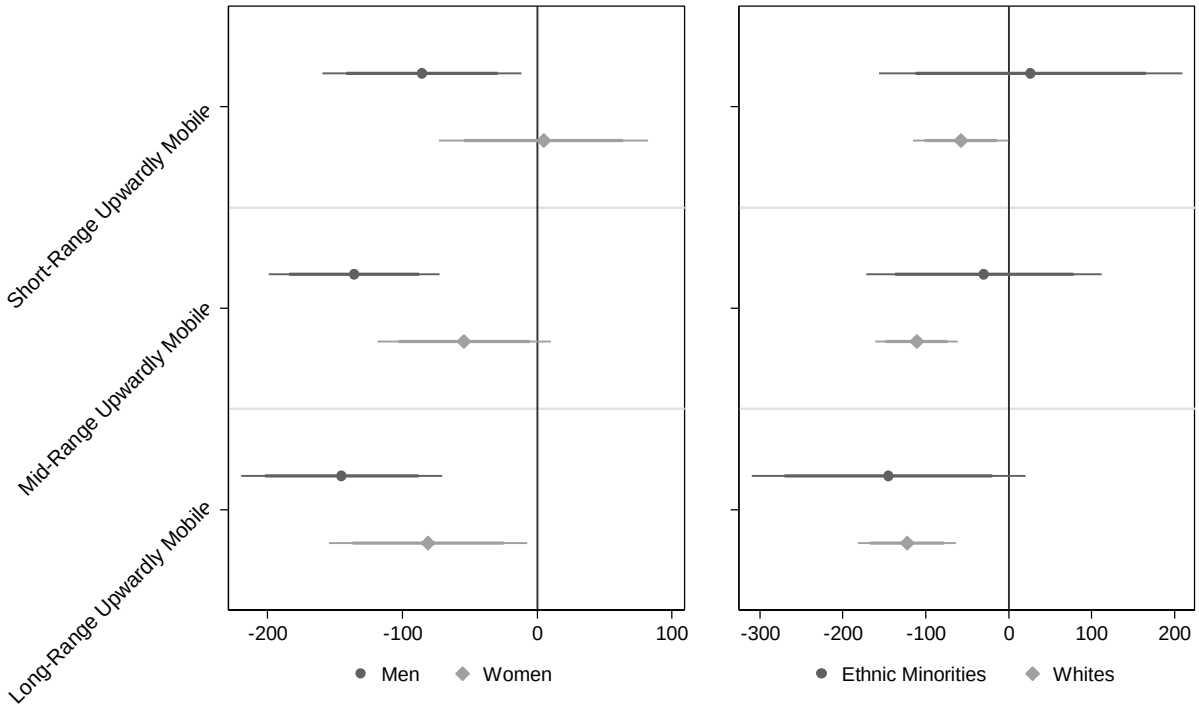
**Interrogating the Class Ceiling**

While Table 3 illustrates that the upwardly mobile face a significant pay penalty in the higher professions, it is important to deepen this analysis and ask whether this disadvantage is more marked for certain social groups within NS-SEC 1 as a whole. In this section we therefore first

[11] The origin income gap among managers is largely explained by differences in region and education, so that origins are not consistently significant in the model, but working class people who go into management are still earning less on average than their colleagues; entry doesn't guarantee equal chances here, it is just that working class origin people are more likely to work outside London or to have less education.

look at whether the origin-income effect in elite occupations differs according to gender, age and ethnicity, and second whether varies among our sixteen elite occupational groups. Figures 3 and 4 give the coefficients for origins from regressions on income (with the same independent variables as in Table 3[12]) among higher professionals and managers in different age, gender, and ethnic origin groups.

**Figure 3: Differences by Gender and Ethnicity**



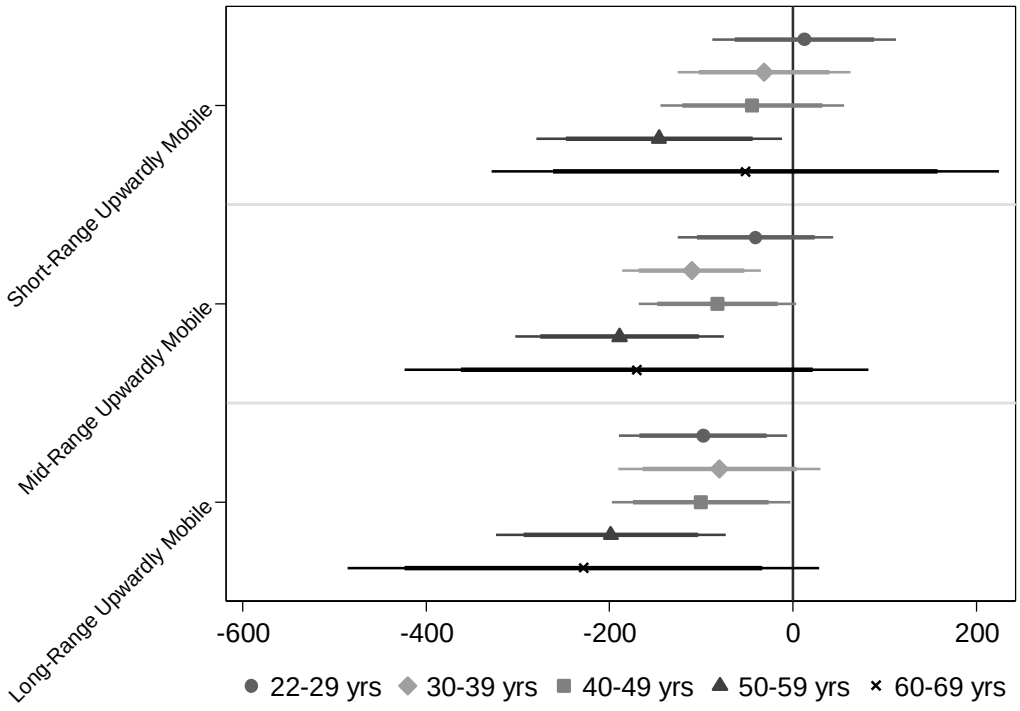

**Note:** Coefficients for upwardly mobile origins (compared to inter-generationally stable) from models of gross weekly earnings for men only (n=2020), women only (n=1187), ethnic minorities only (n=285), and whites only (n=2922). All variables in Table 3 used in each model. Plots created in Stata 13 using the *coefplot* command (Jann 2014): the marker is the point estimate of each coefficient, the thicker region of each bar is the 95% confidence interval, and the thinner region is the 99% confidence interval. Coefficients where the thicker part of the bar does not cross 0 are thus significant at p<.05.

Figures 3 and 4 demonstrate two important demographic dimensions to the class ceiling. With regard to gender, the results shown in Figure 3 combined with the predicted earnings deficit for women reported in Table 3 (women have predicted earnings of about £108/week less than men) illustrate that upwardly mobile women face a significant 'double disadvantage'

[12] Full results in Appendix.

within the elite occupations; they earn less based on both class origin *and* gender[13]. Thus long range upwardly mobile women have predicted earnings of about £247 per week (£12,844 or over $19,000 per year) less than otherwise-similar intergenerationally stable men[14]. In terms of ethnicity, the right panel of Figure 3 shows the results for separate regressions for ethnic minorities and whites. Here we can see that the overall pattern for ethnic minorities appears similar to that for whites: the most disadvantage for the long-range upwardly mobile, and the less disadvantage the closer one's origins are to NS-SEC 1. There are not enough ethnic minorities in NS-SEC 1 occupations, however, for much statistical power: only the coefficient for long-range upwardly mobile ethnic minorities is statistically significant.

**Figure 4: Differences by Age**




**Note:** Coefficients for upwardly mobile origins (compared to inter-generationally stable) from models of gross weekly earnings for those in NS-SEC 1 aged 23-29 (n=245), 30-39 (n=926), 40-49 (n=1029), 50-59 (n=773) and 60-69 (n=234). All variables in Table 3 used in each model. Plots created in Stata 13 using the *coefplot* command (Jann 2014): each marker is a point estimate, the thicker region of each bar is the 95% confidence interval, and the thinner region is the 99% confidence interval. Coefficients where the thicker part of the bar does not cross 0 are significant p<.05.

[13] The left panel of table 2 also, however, shows that the effect of origin on earnings is about 1.5 times larger for men than for women.

[14] Based on a model with a gender-origin interaction term.

Second, Figure 4 displays coefficients that suggests the class pay gap varies substantially by age. In particular, our results suggest that class-origin pay penalties are only about half as large for people in their twenties as they are for people in their fifties (£98/week vs £198/week for long-range versus stable). This could point in two different analytical directions: first, it could be that the class ceiling is declining across cohorts. In other words, younger people from working class backgrounds are experiencing less of a pay gap than older people from similar backgrounds. In contrast, the greater penalties experienced by those in their 50s could be the result of a cumulative effect over the course of their career. We do not have the space or data to adjudicate between these accounts here, but whatever the cause we can clearly see a pattern of greater pay disadvantage among older mobile respondents.

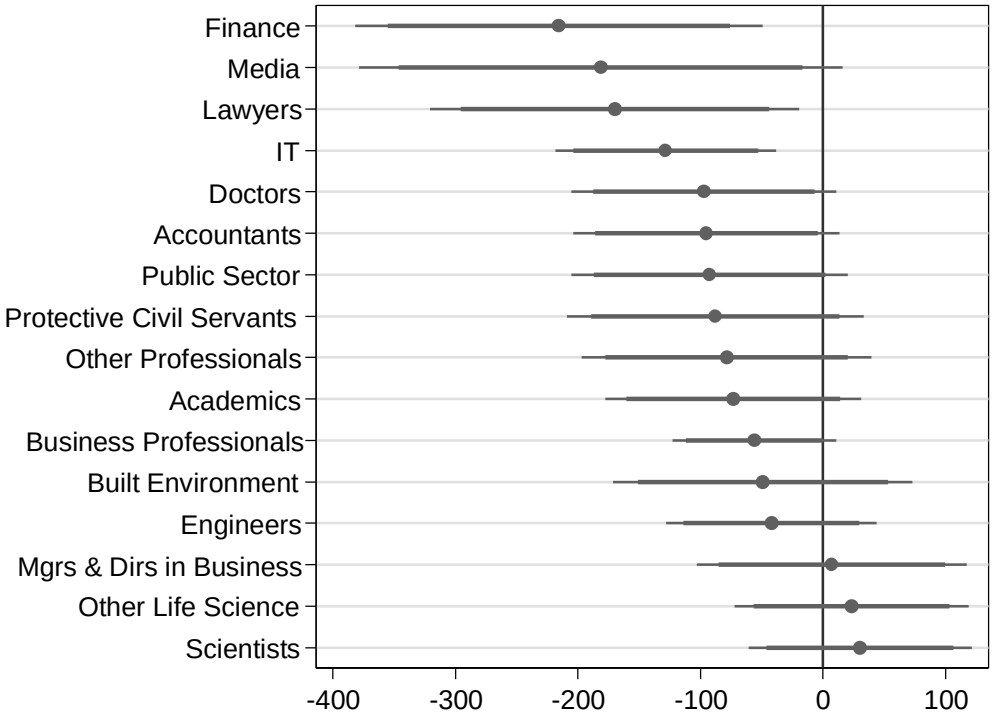
Beyond demographic differences, it is also important to examine whether the class ceiling is a uniform phenomenon across all elite occupations, or whether it is an artefact of a marked pay gap in certain occupations. Figure 5 and Table 4 illustrate that there are actually striking levels of variation between the occupational groups in terms of the class pay gap[15]. At one end of the scale, engineering provides a notable exemplar of meritocracy in terms of both social mobility into and within an elite profession. Not only is engineering comparatively open in terms of access, but the pay gap between the mobile and the stable is negligible. In contrast, these results reveal the arresting scale of disadvantage experienced by the children of the working classes in the traditional professions of law, media, medicine and finance. Not only are these occupations comparatively exclusive in terms of membership (see Table 2), but the socially mobile (of any range) have predicted earnings of £100 or more less *per week* than their more socially privileged colleagues. In finance, for example, the predicted difference is £215/week, which translates into an estimated annual pay gap of £11,200[16]. Moreover, as Table 4 illustrates, the disadvantage tends to increase according to the range of one's upward

[15] Because of the relatively small sample sizes in each of these occupational groups, we report results that are significant at p<.10 or less, while also focusing our discussion on results we found to be robust to model specification. Given the relatively small ns in most of our occupational groups, combined with the large number of covariates, these are remarkably strong effects.

[16] This may in fact be an under-estimate given the prevalence and size of annual pay bonuses in banking and finance, however the data on bonuses available in the LFS are too sparse for any further conclusions on this issue.

mobility in all four of these professions[17]. It is also worth noting here that the class pay gap is not just confined to the private sector. Indeed, it is striking that in both medicine and among public sector professionals and managers, where salaries are widely thought to be tightly regulated by the British government, the pay gap is considerable.

**Figure 5: Differences by Occupation Group all mobile vs stable**




**Note:** Coefficients for *any* upwardly mobile origin (short-range, mid-range or long-range) compared to inter-generationally stable from models of gross weekly earnings for those in each of 16 elite occupations. All variables in Table 3 used in each model. Plots created in Stata 13 using the *coefplot* command (Jann 2014): the marker is the point estimate of each coefficient, the thicker region of each bar is the 90% confidence interval, and the thinner region is the 95% confidence interval. Coefficients where the thicker part of the bar does not cross 0 are thus significant at p<.10.

Finally, IT and science provide interesting case studies in terms of mobility into and within elite occupations. While IT is comparatively open in terms of access, those that do enter from less privileged backgrounds face a significant pay gap of between £103 and £143 per week. This echoes similar results from our previous work (Friedman et al, 2015). Science, on the other hand, is relatively exclusive but any class pay disadvantage within the profession is neither substantial nor statistically significant.

[17] In the case of law, media and finance, these results also echo findings from our previous work on the GBCS (Friedman et al, 2015).

**Table 4: Origin Coefficients from OLS Regressions for 16 Occupation Groups**

| | I | II | | | |
|---|---|---|---|---|---|
| | *all* mobile (vs stable) | long-range upwardly mobile | mid-range upwardly mobile | short-range upwardly mobile | N |
| finance managers | -215.47* | -161.44 | -229.42* | -238.83* | 149 |
| media professionals | -181.36+ | -119.13 | -233.88* | -149.33 | 54 |
| lawyers | -169.84* | -378.87** | -108.82 | -153.94 | 87 |
| IT professionals | -128.38** | -142.08** | -143.12** | -102.96+ | 472 |
| doctors | -97.25+ | -99.01 | -157.06* | -35.76 | 136 |
| accountants & related | -95.19+ | -145.04+ | -65.28 | -96.78 | 184 |
| public sector mgrs & profs | -92.6 | -151.99** | -101.92+ | -31.45 | 222 |
| protective civil servants | -87.95 | -108.96 | -71.27 | -153 | 60 |
| other professionals | -78.67 | -27.11 | -58.23 | -128.61+ | 94 |
| academics | -73.23 | -27.41 | -81.55 | -76.09 | 119 |
| business professionals | -56+ | -101.49* | -79.20* | 2.38 | 608 |
| built environment professionals | -49.17 | 18.69 | -101.86 | -9.04 | 75 |
| engineers | -42.14 | -65.9 | -30.3 | -45.11 | 263 |
| managers and dirs in business | 7.07 | -7.82 | -41.13 | 109.37 | 475 |
| other life science professionals | 23.45 | -54.37 | -2.15 | 111.33 | 91 |
| scientists | 30.16 | 36.43 | 31.14 | 26.75 | 172 |

**Note:** + p<.10 * p<.05 **p<.01 Column I reports coefficients for *any* upwardly mobile origin (short-range, mid-range or long-range) compared to inter-generationally stable; column II reports coefficients for each of the three upwardly-mobile origins, as compared to the inter-generationally stable. All models of gross weekly earnings for those in each of 16 elite occupations. All variables in Table 3 used in each model.

## Discussion

Our results indicate that the upwardly mobile face a significant pay disadvantage within Britain's elite occupations as a whole, and especially within certain professions. A number of mechanisms may be at work to produce this relative disadvantage, or 'class ceiling'. Here we suggest two possibilities, both of which warrant further enquiry. First, it may be that the class pay gap can be explained by the behaviours and practices of the upwardly mobile themselves. For example, the mobile may enter less prestigious or successful companies or institutions within their field; they may choose to specialise in less lucrative areas; or they may be more reluctant to ask for pay rises, both when entering occupations and/or when negotiating promotions later in their careers.

Second, it may be that the upwardly mobile are the victims of class discrimination: that they are either consciously or unconsciously given fewer rewards in the workplace than those from more advantaged backgrounds. This may manifest as outright discrimination, or it may have to do with more tacit processes of homophily or 'cultural matching' in contexts such as interviews or performance appraisals. Here those in senior positons, who are themselves disproportionately likely to be from stable backgrounds, may misrecognise as merit social and cultural competencies rooted in class backgrounds similar to their own.

Further research is clearly necessary to untangle the explanatory power of each of these mechanisms. However, whatever their relative significance, we think *all* these forms of disadvantage flow—at least in part—from the unequal distribution of cultural and social capital (Bourdieu, 1986). For example, while we can control here for 'institutional cultural capital' in terms of educational qualifications, we lack more fine-grained 'institutional' measures such as private schooling and Russell Group[18] university attendance. We also do not have data on 'objectified' cultural capital, such as legitimate cultural taste. However, significantly, in our previous work on the class ceiling within the Great British Class Survey (Friedman, Laurison, Miles, 2015), we found that the class pay gap shrunk significantly (although not completely) when we controlled for whether or not respondents had attended private schools[19] and/or elite universities, as well as the degree to which they possessed legitimate cultural tastes.

Of course Bourdieu (1986) argued that cultural capital is often most powerful as an "embodied" resource manifest in legitimate ways of speaking, dressing, acting etc. While this form of capital is notoriously difficult to discern via survey measures (Friedman, 2014), qualitative research reveals it can be highly important in structuring how upwardly mobile individuals are evaluated within elite occupations, particularly through perceptions of 'soft skill competency' or analytical skills (Puwar, 2004; Rivera, 2012; Liu & Grusky 2013). Moreover, embodied cultural capital may also be consequential in terms of processes of snobbery or discrimination in the workplace. In a UK context, for example, there is continuing evidence that the stigmatisation of working-class identities (through markers of accent, dress

[18] Russell Group denotes a collection of 24 UK universities, widely considered to be the most prestigious.
[19] Recent research (IFS, 2014) has also found that private school attendance is linked to higher earnings in the UK

and general embodiment) remains persistently strong (Mackenzie, 2015; Tyler, 2013; Savage et al, 2015).

S*ocial* capital is also important for understanding potential mechanisms of disadvantage (Granovetter, 1986; Li and Devine 2008). Again, in our GBCS work we found that differences in social capital explained part of the pay disadvantage of the upwardly mobile: those whose parents were not in elite occupations are less likely to have social contacts in powerful positions.

Finally, it is worth considering childhood socialization and cultural and social capital may combine to produce particular forms of subjectivity, or what Bourdieu terms 'habitus', that may also impact on the class ceiling effect. Specifically, Lareau (2003) demonstrated the ways in which children of different social classes approach institutions differently, while Skeggs (1997) has illustrated how perceived deficiencies in these areas can have a profound impact on how the upwardly mobile feel about their own "value" within elite occupational environments. They may have different ambitions or aspirations to those from privileged backgrounds, and in some cases may even self-censor from reaching for the top because of anxieties about somehow abandoning their roots or class-cultural origins (Friedman, 2015).

Our findings also intersect with other debates in the field of social stratification. First, it is worth considering how our notion of a class ceiling interacts with the well-documented notion of a gendered 'glass ceiling'[20]. First, the size of the unexplained pay gap for the upwardly mobile in these analyses is very similar to the size of the unexplained gap for women: estimates of the 'gender effect' in Table 3 range from £108 to £143 per week, and estimates of the effect for the long-range and mid-range upwardly mobile are between £96 and £132/week. Further, we find that these phenomena are strongly connected, in the sense that upwardly mobile women face a *double disadvantage* in elite occupations. However, our results also reveal an important way in which the glass ceiling differs from the class ceiling. In

[20] The differences in income between whites and ethnic minorities as a group in this data, are small and not statistically significant. We are limited by the relatively small sample of NS-SEC 1 respondents with income data, only 10% of whom, or about 160, are members of ethnic minorities. There appears to be a large pay penalty within this group for those of Bangladeshi and Pakistani origin, but the numbers are too small to draw meaningful conclusions. Further analyses with larger samples could explore the relationship between ethnic minority and social class origins more fully.

particular, we find that the gender pay gap follows a divergent sectoral pattern to the class ceiling. While the upwardly mobile are more disadvantaged in higher professions, women face a more significant pay disadvantage in higher managerial employment (predicted earnings £143 less in NS-SEC 1.1 vs £105 less in 1.2). This finding is significant as it highlights the way in which gender and class disadvantage intersect in important ways but can, at the same time, be more consequential *individually* in some sections of elite occupations than others.

Second, we believe these results may help shed light on the continuing debate between British economists and sociologists concerning rates of relative social mobility. While rates of occupational 'big-class' mobility may have remained constant, as reiterated recently by Bukodi et al 2014, our results demonstrate that within these big classes there may be significant differences between the intra-occupational trajectories of the upwardly mobile and those from intergenerationally stable backgrounds. Seen in this way, the decline in income mobility repeatedly highlighted by Blanden et al (2009) may need to be taken more seriously by sociologists.

Third, we think these results point toward the need for similar research in other national contexts. The sociological consensus is that *overall rates* of occupational mobility are fairly consistent across the industrialized world; although rates of intergenerational income mobility vary more. There are good reasons to expect that many of the factors that likely contribute to the class pay gap in the UK would be as or more powerful in the US, for example.

Finally, our results here can only provide a snapshot of social mobility into, and within, elite occupations. It is important to note that the size and composition of elite occupations in Britain has changed, and continues to change, considerably. This has an important bearing on our results. In 1972 when our oldest respondents were entering the workforce, for example, 'higher salariat' occupations in Britain made up 13.6% of the (20 to 64 year old) male workforce (Goldthorpe, 1980 table 2.2). However, in the 2014 LFS data, the comparable figure has risen to 17.2%. Similarly, the size of individual occupations has also altered significantly. While occupations such as IT and higher education have grown rapidly in absolute terms since the 1970s, other elite occupations have likely remained relatively stable

as a proportion of the workforce. All of these changes have important implications for the validity of our findings. In particular, the relative disadvantage faced by the upwardly mobile is likely to vary significantly according to both the size and social composition of the elite occupation when they entered, and the particular, occupationally-specific, cohort they were part of. Further research might examine these cohort and compositional effects in more detail, or compare relative and absolute rates of mobility into elite occupations.

**Conclusion**

*This article provides the most fine-grained analysis to date of social mobility into and within Britain's elite occupations. We also believe it moves understandings of mobility forward in a number of key ways. First, we uncover clear lines of variation in the social composition of different elite occupations.* There appears to be a strong distinction between "traditional" professions, such as medicine, law and finance, which are dominated by the children of managers and professionals, and more technical occupations such as engineering and IT that appear to recruit more widely. This finding also challenges the dominant focus in mobility studies on examining mobility rates into the generalised classes of the NS-SEC. These findings indicate the need for a more nuanced and differentiated and targeted policy response to increasing access to elite occupations.

Our findings also point toward an important distinction between higher professionals and higher managers in terms of social mobility. While higher managers earn more and are considered by many to be more "elite" in terms of the NS-SEC class structure (Rose, 2013), our results indicate that in general the higher professions are significantly more *elitist* in terms of restricting access for those from working class backgrounds. More specifically, we demonstrate that even when those from non-professional and managerial backgrounds are successful in entering many of Britain's elite occupations, they face a powerful "class ceiling" in terms of earnings. Moreover, even after controlling for important factors such as education, age, gender, ethnic origin, location, hours worked, training, job tenure, firm size, industry type and sector, this pay gap persists. This, we believe, points toward a worrying and previously undetected form of disadvantage within elite occupations.

It is important to note, though, that the class ceiling is not a uniform phenomenon across all elite occupations. Engineering, for example, is not only comparatively open but also has no discernible class pay gap. On the other hand, our analysis reveals the arresting scale of disadvantage experienced by the upwardly mobile in law, medicine finance and media. The fact that the socially mobile in these arenas earn several thousands of pounds less each year, on average, than otherwise-similar but more socially privileged colleagues indicates that there are powerful barriers to occupational success that need to be addressed further by sociologists, and also at a policy level.

We suggest a number of mechanisms that may be at work in producing this relative disadvantage, most notably the way in which the earnings trajectories of the mobile may be hampered by their relative lack of cultural and social capital. We believe these resources may be key in understanding both the practices of the upwardly mobile *themselves*, as well as the ways they are evaluated and judged by *others* within elite occupations. Clearly, follow-up work is needed to interrogate these assertions. Indeed, we would specifically urge qualitative enquiry into the different *strategies* of the mobile and stable in specific domains such as pay negotiation, interviews, performance appraisals and firm choice, as well as work that taps the more *experiential* aspects of mobility into elite occupations.

Finally, it is important to stress that we are not suggesting here that the class pay gap in Britain is necessarily new. In fact we are sceptical that this is the case. What we can say, though, is that we think this analysis highlights the need for new directions in sociology that focus not just on rates of 'access' to elite occupations, but also addresses the implications of intra-occupational income disadvantage in many of the most prestigious professions.

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