Migration, occupational mobility, and regional escalators in Scotland

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Abstract

This paper seeks to unpick the complex relationship between an individual's migration behaviour, their place of residence, and their occupational performance in the Scottish labour market between 1991 and 2001. We investigate whether Edinburgh has emerged as an occupational escalator region and whether individuals moving there experience more rapid upward occupational mobility than those living and moving elsewhere. Using country of birth we also control for an individual's propensity to make long distance moves during earlier periods of their life course. Using data from the Scottish Longitudinal Study, linking 1991 and 2001 individual Census records, and logistic regressions, we show that those who migrate over long distances within, or to Scotland are most likely to achieve upward occupational mobility. We also found that Edinburgh is by far the most important regional escalator in Scotland. This is an important finding as most literature on escalator regions focuses on international mega cities.

Keywords: Escalator Region, Occupational Status, Social Mobility, Longitudinal data, Scotland.

Introduction

It has been argued that Britain is moving towards a meritocracy, in which one would expect occupational advancement to result from an individual's talents and abilities, and not depend on social

class or being born into an elite group. However, even although it has been argued that education has displaced social class as the main driver of upward occupational mobility in the UK (Marshall, 1997), social class continues to have an impact. This is true both in relation to participation in higher education and in terms of career advancement in the labour market (Halsey, 1993; Holdsworth, 2006; Morely and Lugg, 2009; Nunn *et al.*, 2007). In addition, persistent regional differences in opportunities for occupational mobility remain a worrying feature of modern life in the UK. These regional differences in equality of opportunity may be caused by economic and political circumstances and gain an extra poignancy when examined in the regional context of devolved government in Scotland. It is therefore essential that social scientists analyse the (spatial) patterning of occupational mobility (Breen, 2004).

We are specifically interested in two dimensions of occupational mobility. The first is a regional one. We seek to identify if there are regional variations in occupational mobility within Scotland. A number of powerful forces have produced potentially uneven opportunities for occupational advancement in Scotland, arising from large regional disparities in access to job opportunities. Edinburgh, as capital of a devolved nation, hub for financial service activities and regional head office location for many public sector bodies, seems to boast many of the characteristics that one would expect to find in a region offering good opportunities for rapid occupational and social mobility. One would certainly anticipate that this would be true compared with most other urban areas in Scotland.

The second dimension of occupational mobility is its relationship to migration. We pay particular attention to the labour force experiences of individuals who are willing to move over long distances between employers. The literature suggests that this form of migration is beneficial for occupational advancement. In addition to long distance mobility within Scotland we also use country of birth to explore an added dimension where individuals who have previously made a long distance move in their life course, either from England or Wales, or from Outside Great Britain into Scotland, are more likely to experience upward occupational mobility, especially in comparison to their Scottish counterparts who have not made inter-regional or international moves.

This is the first systematic longitudinal study for Scotland that examines the effects of access to job opportunities, short and long distance migration, and a range of independent socio-economic variables on upward (and downward) occupational mobility. We are especially interested in the differences in labour market experiences between individuals moving over long distances into the major urban centres of Scotland such as Edinburgh and Glasgow in comparison to individuals who have not migrated. This is also one of the first papers to draw evidence from the recently constructed and very powerful Scottish Longitudinal Study (SLS) which links individual records from the 1991 and 2001 Scottish Censuses with a sample of 5.3% of the Scottish population (Boyle *et al*., 2009). We study social mobility by comparing the socio-economic position – based on occupations – of SLS members in 1991 and 2001.

Literature Review

Relative occupational mobility

Occupational mobility can be discussed in absolute or relative terms. Absolute mobility occurs when an individual is better off than at some point in their past. Relative mobility by contrast relates to an individual's advancement relative to others in their society and cohort (sometimes thought of in terms of their changing position within a social hierarchy). Most social scientists believe that upward relative occupational mobility in a meritocracy should be more easily achieved than in a society divided along class lines. Many would suggest that modern western societies have shifted in favour of meritocratic standards and away from social structures determined dominantly along class lines (Marshall, 1997). There seems, however, to be little evidence of any increase in relative social mobility in the UK and other West European societies between the 1970s and the 1990s (Breen, 2004; Blanden et al., 2005;

Nunn *et al.,* 2007). Relative social mobility may even have fallen in UK for those in the lowest income groups, despite the expansion of education systems and the erosion of traditional class structures. However, there are others who are critical of the outcomes of these studies (Gorad, 2008). Work by Jantti and colleagues (2006) has shown that social mobility in Britain is similar to that experienced in the Nordic Countries with increasing opportunities for advancement between generations.

Education in a meritocracy is of course the main determinant of an individual's relative occupational and social mobility. However, social class can affect participation rates in post-compulsory education and middle-class parents continue to be very effective in ensuring that their children are well placed in relation to educational structures (Devine, 2004). As a result Nunn *et al*., conclude (2007, 3) that 'the introduction and expansion of universal education systems in the UK and Western Europe have not led to increasing levels of relative mobility.'

Factors other than social class and education have also been found to influence relative occupational mobility. Perhaps the next most widely studied influence has been gender, with many studies confirming the differential in occupational status between men and women. Within the workforce men tend to enjoy a higher chance of entering high wage growth occupations and within these occupations to achieve more rapid occupational wage mobility than women (Dex *et al*., 2008; Scott *et al*., 2008). Conversely, factors that mitigate against women enjoying as rapid upward occupation trajectory as men include the greater likelihood of women taking a break from work to bring up children, or change residence in response to a career location by her husband, as well as other more fundamental labour market effects (van Ham & Büchel, 2006).

Ethnicity is another frequently cited reason for differentials in occupational and social mobility. In nearly all countries it appears that many recent immigrants experience downward occupational mobility after arrival in their host country (Bauer & Zimmermann, 1999) and even second generation immigrants may face a wage disadvantage depending on the ethnic group to which they belong (Borjas, 2006). Longer settled ethnic communities tend to face poorer occupational mobility than the local population, although as Robinson (1990) has shown there are huge differentials between ethnic communities. Platt (2005) has recently analysed the scale of occupational discrimination and other factors contributing to the social mobility differentials experienced by England's immigrant ethnic minorities. Platt found widespread evidence of ethnic differences in occupational status that do not map onto the educational attainment of these groups. Education, gender and ethnicity do not only affect social mobility, but also affect one's chances of retaining a high social position. Poor health, a low socio-economic status and a lack of social and cultural capital have all been argued to be important in affecting downward mobility trajectories (Bourdieu, 1984) with Nunn *et al* (2007) suggesting that traditional working class social capital has weakened in the UK in recent decades in association with so-called cultures of worklessness.

Labour Markets and Escalator Regions

Ever since Blau and Duncan (1967) it has been recognized that an individual's willingness to migrate is a significant factor in their occupational achievement. In their book "The American Occupational Structure" Blau and Duncan argued that there are differences in the opportunity structures of different labour markets, and that migration is an important instrument to access other labour markets with better opportunities. In the last decade, there has been a substantial increase in disparities between regional labour markets within countries, but there has also been a major growth in the disparities between national labour markets (Krugman, 1994a; 1994b). Thus, the occupational mobility opportunities for individuals willing to migrate to other labour markets, especially for those originating from a labour market with restricted opportunities, are more substantial now than at any point in the past.

The economic specialisation that followed the re-organisation of national production systems, since the 1970s, to serve global markets (in what Massey, 1984 described as the new international division

of labour), led to the redistribution of jobs socially and the relocation of jobs geographically (Bloetvogel *et al*., 1997; Lee, 2000). In most advanced economies this not only meant a greater concentration of jobs in the service sector, especially white collar, managerial and professional jobs, but it also produced increasingly uneven regional distributions with concentrations in core economic regions of countries and at an international scale in global cities and city regions (Dunford & Fielding, 1997). These profound changes affected opportunities for absolute occupational mobility in western economies, but also produced conditions for new patterns of relative social mobility with traditional class structures becoming increasingly challenged. In most countries there is an increasingly uneven spatial pattern of job opportunities and opportunities for occupational mobility (van Ham, 2001). As a result, we have an appreciation that labour markets must not be treated as homogeneous and impermeable spaces. In contrast labour markets exhibit a highly uneven geography of development which highlights their heterogeneous nature and the large intra and inter market differences that exist both within and between them (Massey, 1984). Within the labour market literature, the spatial nature of relationships has been well documented (see for instance, Martin, 2000; van Ham, 2001).

It is well known that job related migration, especially for the skilled and highly skilled, is associated with upward occupational mobility (van Ham, 2001) with those with the highest levels of human capital being the most likely to move longer distances (Mulder & van Ham, 2005). This apparently simple formulation remains vital in understanding why, even in a meritocratic society, some people will advance more rapidly than others in occupational terms, since it follows that those with credentials and a willingness to move will achieve occupational mobility more quickly than those who are either rooted in place or facing personal constraints on their mobility. Married couples with children and home owners provide obvious examples here (Helderman et al., 2006; van Ham & Hooimeijer, 2009; De Meester & van Ham, 2009).

The relationship between spatial and occupational mobility, and urban form, has given rise to the concept of the escalator region (Fielding, 1992; Dunford & Fielding, 1997). The concept draws clearly on the metaphor of an escalator as a means of moving both forward and upward, and when applied in a geographical context suggests that some regions not only provide more opportunities for occupational mobility, but that this will produce patterns of inter-regional migration towards these regions by those seeking more rapid advancement. Fielding (1992, 2004) argued that a higher density of job opportunities in an escalator region also made it possible for people living there to earn higher salaries and to gain occupational promotion more quickly than others. Champion (2004) found that many upwardly mobile people leave escalator regions at some point later in their career, returning to regional labour markets. A refinement worth noting is that empirical research shows there are many routes to upward mobility and that only a minority of migrants moving into the UK's main escalator region are rewarded by promotion at the time of their initial move and that most receive the reward for their move only after some time (Findlay, *et al*., 2009).

There are two contexts within which the escalator concept holds particular promise. The first context involves research that specifically studies occupational mobility in global cities as opposed to within the heterogeneously diverse spatial container of the nation state. There has been remarkably little empirical testing of how unevenness in occupational mobility operates in global city regions, where very diverse ethnic groups are brought together in sometimes extremely polarised labour market conditions. These cities, on the one hand, involve elite mobility involving the social networks that make up the so-called transnational capitalist class (Sklair, 2001). On the other hand, people of diverse origins are drawn to work in the low-wage service economy of global cities often involving the downward mobility of well qualified people who are glad to accept wages that exceed those in countries of origin and involving youthful cohorts of mobile people seeking an entry point that allows them a temporary experience of living in the global city (Conradson & Latham, 2005; Favell, 2008).

The second context that remains understudied is the nature of occupational mobility in regional economies. In most so-called peripheral areas it is easy to identify specific cities that stand out as different from other towns and settlements because they function as regional command and control

centres for the wider regional and sometimes global economy. There are at least five ways in which these cities have been shown to be distinctive in relation to the spatial and occupational mobility of their citizens (Findlay *et al*., 2003). First they attract new service-class migrants (Webb, 1999) from the core of the economy whose moves are channelled within the 'network of flows' that sustain contemporary capitalism (Castells, 2000). Second, these cities have a disproportionately high share of mobile workers from the new service-class relative to the regional economy as a whole. Third, regional cities attract these workers not just from the core economic region of the national economy but also from regional and international command and control centres in other countries. Fourth, these cities often exhibit a functional disconnection between the patterns of occupational mobility found amongst the local population employed in the service sector and the circuits of movement found amongst new service-class migrants from outside the region. The glass ceiling on upward mobility of some employees applies not only to long-established local people but as noted earlier, also to second generation members of visible ethnic minorities. Fifth, these regional centres require the mobility of skilled workers to be sustained for the wider regional economy to remain healthy. Thus, not only are they sites of inward and upward mobility, but they are also sites of upward and outward moves. The last feature is not surprising since it has been found that global cities also exhibit outward movement of upwardly mobile people and this involves not only onward moves to other global cities, but also some significant return migration of highly skilled people seeking to relocate to the regional control and command centres found in their region of origin (Findlay *et al*., 2009).

From theoretical context to research questions

This literature review has provided ample evidence of the diversity of social and cultural factors that contribute to the continued unevenness of occupational mobility in western societies claiming to have moved away from class-based divisions. As has been argued, these social processes are deeply spatially embedded and produce social landscapes where opportunities for social mobility are not merely uneven, but are structured in such a way that they accentuate inequalities over time. This has been argued to be true not only in the core economic regions of contemporary world capitalism, notably in the regions of world cities, but also in regional centres where spaces of flows reproduce inequalities through the movement of workers in the new service class.

This paper sets out to examine two particular features. Firstly, we ask if there is any evidence that Edinburgh, the Scottish political capital, could be becoming an escalator region within Scotland, at a time when it has achieved greater command and control functions both relative to the UK core economic region of the South East of England and relative to the rest of Scotland. If this were to be the case, one might expect to see evidence of the Edinburgh labour market offering opportunities for more rapid occupational mobility than other parts of Scotland. Similarly, an escalator region would be expected to assist with the maintenance of social position for individuals already in higher social classes in comparison with other regions within Scotland. Within this question we also seek to determine if Scotland's other major city, Glasgow, also exhibits any evidence of being an escalator region within the Scottish context.

Secondly we seek to link the mobility experiences of individuals and their labour market performance to assess if there is evidence in Scotland that individuals willing to migrate over long distances are more likely to experience better labour market outcomes than individuals who do not migrate, or only migrate over short distances. In line with previous labour market literature we would expect to see that individuals who migrate over longer distances are more likely to experience upward occupational mobility. By including information about the country of birth, either from England or Wales, or from outside Great Britain, we also enable the identification of individuals who have made long distance moves into Scotland at some point in the past, even if their current level of residential mobility is relatively low.

Data and Methods

We use data from the Scottish Longitudinal Study (SLS), which contains linked 1991 and 2001 Census records for approximately 274,000 people, around 5.3% of the Scottish population (Boyle et al., 2009). The longitudinal nature of the data allows us to link 1991 individual and locational characteristics to 2001 outcomes. The research population included all individuals present in Scotland who were employed in both 1991 and 2001. Individuals without a job in either 1991 or 2001 were omitted from the study, as were those who were younger than 15 or older than 55 in 1991.

The dependent variable in this study measures occupational mobility between 1991 and 2001 and is based on the National Statistics Socio-economic Classification (NS-SEC) which provides an indication of socio economic position based on occupation. The NS-SEC is constructed from the Standard Occupational Classification 2000 (SOC2000) and information on employee status (including managerial position) and size of organisation. NS-SEC is commonly used in the UK to identify social class status (Office for National Statistics, 2000a; 2000b). The NS-SEC classification has 8 broad categories: 1) higher managerial occupations and higher professional occupations; 2) lower professional and higher technical occupations; 3) intermediate occupations; 4) employers in small organisations and own account workers; 5) lower supervisory and technical occupations; 6) semi-routine occupations; 7) routine occupations; 8) never worked and long-term employed. We collapsed these categories into two categories: A) high occupational status consisting of NS-SEC categories 1 and 2; B) low occupational status consisting of NS-SEC categories 3, 5, 6, and 7. We excluded the self-employed in NS-SEC category 4 as this is a very heterogeneous group containing, for example, self-employed brick layers along with self-employed book editors or publishers. NS-SEC category 8 (the long-term unemployed and those who had never worked) were also excluded.

We constructed two dependent variables. The first dependent variable measures whether or not those in the low occupational status group (NS-SEC 3,5,6,7) in 1991 'moved up' to the high occupational status group (NS-SEC 1 or 2) in 2001. The outcome is coded into a dummy variable scoring 0 for those individuals who have remained in the low status group, and 1 identifying those who have moved into the high status group. The second dependent variable measures whether those in the high status group maintained their high occupational status. It is coded into a dummy variable with score 0 for those who experienced downward mobility into the low status group, and 1 for those who remained in the high status group. See Table 1 for summary statistics. Since the dependent variables are binary, we have used logistic regression models.

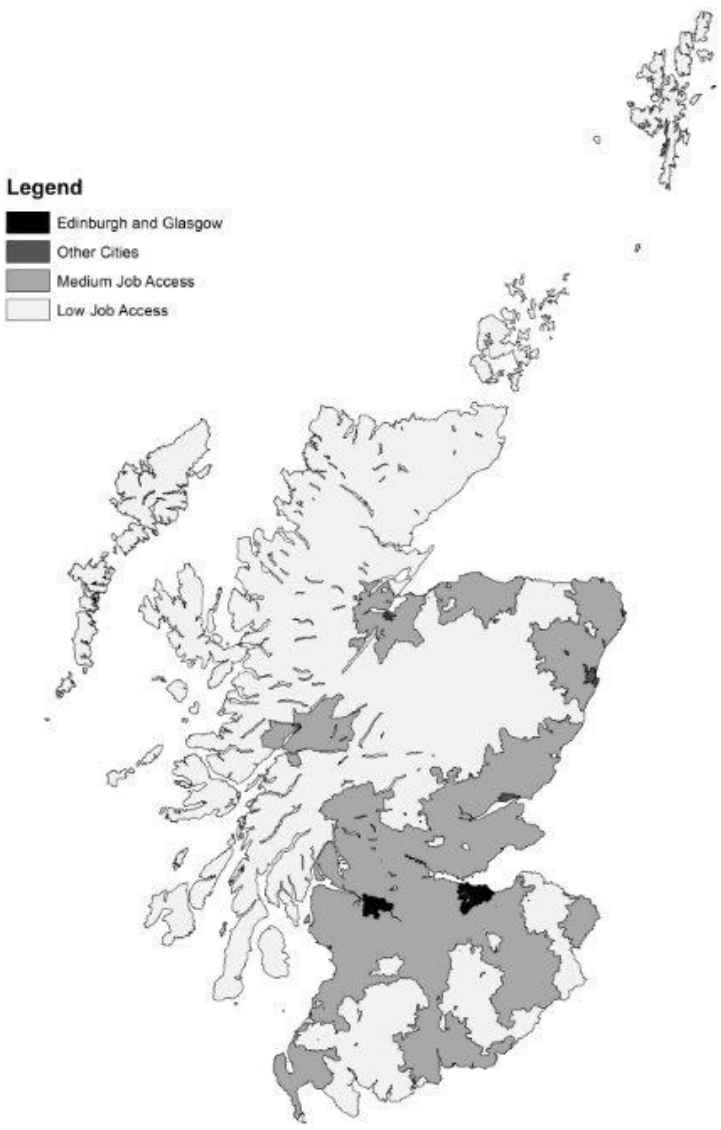
Table 1. Variable Summary Statistics

	Low occupational status 1991, N= 36,330	High occupational status 1991, N= 15,024
Country of Birth		
Scotland (reference)	33,809	12,833
England and Wales	1,909	1,657
Outside Great Britain	612	534
Place of Residence 2001 by mobility between 1991 & 2001		
Glasgow no move	1,076	383
Glasgow short move	1,641	643
Glasgow long move	64	41
Edinburgh no move	1,046	744
Edinburgh short move	1,361	861
Edinburgh long move	119	93
Cities no move	7,617	3,074
Cities short move	11,214	3,987
Cities long move	660	466
Medium Job Access no move	3,398	1,458
Medium Job Access short move	4,898	2,058
Medium Job Access long move	513	431
Low Job Access no move	1,068	205
Low Job Access short move	1358	391
Low Job Access long move	297	189
Female (reference = Male)	18,041	6,884
Age 1991 (average years)	34.74	36.97
Ethnic minority (ref = not ethnic minority)	126	90
Change in presence of children		
1991/2001 No children (reference)	8.754	5,032
1991 No Child/2001 Child	5,890	2,527
Children 1991/2001	13,027	4,016
1991 Child/ 2001 No Child	8,659	3,450
Change in Household		
Couple 1991 and 2001 (reference)	20,956	10,304
Couple 1991, single 2001	3,213	850
Single 1991 and 2001	5,722	1,921
Single 1991, couple 2001	6,439	1,950
Change in Health		
Not ill 1991 and 2001 (reference)	33,108	13,846
Ill in 1991 and 2001	260	96
Ill 1991 only	630	218
Ill 2001 only	2,332	864
Post 18 Qualifications 1991		
None (reference)	34,276	6,021
Vocational	1,412	4,879
Degree or higher	642	4,124
Tenure 1991		
Owner Occupation (reference)	22,847	12,769
Social Renting	11,465	1,400
Private Renting	2,018	855

Source: Calculations done by the authors using data from the SLS.

The most important set of independent variables in the analysis combines place of residence in 2001 and moving distance. We classified places of residence based on access to job opportunities, using Council Area boundaries combined with the Urban/Rural classification developed by the Scottish Government from the 1991 Census (Scottish Executive, 2004). The Urban/Rural classification is based on access to concentrations of population, which we use as a proxy for access to job opportunities (Van Ham et al., 2001). We categorised places of residence by job access in five categories: Edinburgh (individuals living in Council Area of Edinburgh and in an area with a population of over 100,000); Glasgow (individuals living in Council Area of Glasgow and in an area with a population of over 100,000); Other Cities (areas with a population of over 100,000 people but not within the Council Areas of Edinburgh or Glasgow), which include Aberdeen, Dundee and Inverness; Areas with Medium Job Access (areas coded as being either accessible towns or accessible rural areas where accessibility is defined as 30 minutes or less drive time from a settlement with a population of 10,000 or greater) typically include places such as Stirling and Perth as well as some of the semi-rural areas in close to larger settlements and cities; Areas with Low Job Access (areas coded as being either inaccessible towns or inaccessible rural areas, where inaccessibility is defined as more than a 30-minute drive time from a settlement with a population of 10,000 or greater) includes much of the Highlands along with some of the Scottish Border areas. Figure 1 shows the spatial distribution of the area classifications based on access to employment opportunities. It is clear from the map that the vast majority of areas with good job access are located in and around Edinburgh, Glasgow and the central belt that connects the two cities.

Figure 1. Map of Scotland showing area classifications based on access to employment opportunities



Source: 2001 Census Output Area Boundaries. Crown copyright 2003. Crown copyright material is reproduced with the permission of the Controller of HMSO.

We also measured whether people moved between the 1991 and the 2001 Census and people were categorised into three categories: 1) non-movers; 2) short distance movers (less than 35km); 3) long distance movers (more than 35km). We then combined the area classification variable with the mover status variable into one. This variable allows us to distinguish between people moving over short and long distances between various types of regional labour markets. The inclusion of Edinburgh and Glasgow as distinct entities from the other cities in Scotland allows an assessment of whether these two cities are acting as escalator regions.

To supplement the measure of migration between the two census periods we also included country of birth as a means to measure life course mobility. This has a dual purpose, as it enables the distinction of individuals in the Scottish labour market who may have made long distance moves (either from other parts of the UK or from other countries) in the past into Scotland even when their current level of mobility, as measured between the 1991 and 2001 censuses was low. The second purpose of the country of birth variable is that it enables the recognition of the diversity of the Scottish population to be featured in the model.

We included various control variables in our models which can be expected to be related to social mobility: gender; age; ethnicity; change in the presence of children between 1991 and 2001; change in household composition between 1991 and 2001; change in health status between 1991 and 2001 based on long term limiting illnesses; 1991 post-compulsory (post-18) educational qualifications in three groups; 1991 housing tenure. Descriptions for all these variables can be found in Table 1.

Results

Spatially uneven occupational mobility

Table 2 shows the relationship between place of residence in 2001 and occupational mobility between 1991 and 2001 for three categories: those born in Scotland; those born in England and Wales; and those born outside Great Britain. The table show occupational mobility between low and high occupational status groups. The results show a complex pattern of occupational mobility in Scotland. For individuals born in Scotland, by far the best place to live is Edinburgh as individuals living there are the most likely to achieve upward occupational mobility between 1991 and 2001. Once the Scots have achieved a high occupational status, they are most likely to keep it when living in Glasgow and Edinburgh. Also for the English and Welsh born, those living in Edinburgh are by far the most likely to achieve upward occupational mobility or maintaining a high position compared to individuals living elsewhere. For those born outside Great Britain the pattern is much more complicated (partly due to low numbers in various categories). Individuals living in one of the Other Cities (Aberdeen, Dundee or Inverness) are the most likely to experience upward social mobility, compared to places with Medium Job Access and Edinburgh. In terms of maintaining a high occupational position, those individuals from outside Great Britain living in the areas with Medium Job Access within 30 minutes travel time are the most likely to do well compared to individuals living elsewhere. It should be noted that this includes a large proportion of the sub-urban area between Glasgow and Edinburgh which houses a large number of commuters working in the two major urban centres.

Table 2. Mobility between high and low occupational status groups (1991 - 2001) by place of residence in 2001 and country of birth

Population born in Scotland				2001 Occupational status group		
				High (%)	Low (%)	N
Glasgow		1991 Occup. Status group	High	85.06	14.94	1,044
			Low	23.81	76.19	2,670
Edinburgh			High	84.50	15.50	1,399
			Low	29.94	70.06	2,308
Other city			High	81.77	18.23	6,877
			Low	22.84	77.16	18,341
Medium Access	Job		High	82.05	17.95	3,153
			Low	21.75	78.25	8,234
Low Access	Job		High	80.03	19.97	836
			Low	17.70	82.30	2,469
Population born in England and Wales				2001 Occupational status group		
				High (%)	Low (%)	N
Glasgow		1991 Occup. Status group	High	89.70	10.30	68
			Low	29.42	70.58	68
Edinburgh			High	90.65	9.35	289
			Low	46.79	53.21	156
Other city			High	84.29	15.71	592
			Low	30.28	69.72	875
Medium Access	Job		High	87.31	12.69	607
			Low	28.70	71.30	662
Low Access	Job		High	84.87	15.13	152
			Low	23.87	76.13	222
Population born outside GB				2001 Occupational status group		
				High (%)	Low (%)	N
Glasgow		1991 Occup. Status group	High	90.39	9.61	52
			Low	20.00	80.00	55
Edinburgh			High	90.82	9.18	109
			Low	30.26	69.74	76
Other city			High	87.99	12.01	208
			Low	50.00	50.00	170
Medium Access	Job		High	93.44	6.56	168
			Low	37.42	62.58	155
Low Access	Job		High	91.17	8.83	34
			Low	20.84	79.16	48

Source: Calculations done by the authors using data from the SLS.

Because of the data disclosure policy of the SLS we were not allowed to combine place of residence and migration between 1991 and 2001 in one table. We have therefore requested a separate table showing the relationship between spatial mobility status between 1991 and 2001 and occupational mobility between 1991 and 2001 Table 3 shows, as would be expected, that those individuals making long distance moves between 1991 and 2001 are the most likely to have experienced upward occupational mobility across all countries of birth. Those individuals making short distance moves between 1991 and 2001 are more likely to experience upward mobility than those making no moves between the two censuses. In terms of country of birth disaggregation, those born outside Scotland are more likely than those born in either England or Wales or in Scotland to experience upward mobility. The English and Welsh born are more likely than the Scottish born to experience upward mobility.

Table 3. Mobility between high and low occupational status groups (1991 - 2001) by spatial mobility status between 1991 and 2001 and country of birth

Population born in Scotland				2001 Occupational status group		
				High (%)	Low (%)	N
No Move		1991 Occup. Status group	High	82.11	17.89	1,058
			Low	17.46	82.54	2,659
Short Distance			High	82.59	17.41	1,001
			Low	25.34	74.66	2,706
Long Distance			High	85.68	14.32	11,096
			Low	37.14	62.86	14,122
Population born in England and Wales				2001 Occupational status group		
				High (%)	Low (%)	N
No Move		1991 Occup. Status group	High	86.42	13.58	1,805
			Low	25.88	74.12	1,909
Short Move	Distance		High	86.46	13.54	1,561
			Low	30.69	69.31	2,150
Long Move	Distance		High	87.80	12.20	14,677
			Low	48.56	51.44	10,541
Population born outside GB				2001 Occupational status group		
				High (%)	Low (%)	N
No Move		1991 Occup. Status group	High	89.78	10.22	1,708
			Low	20.56	79.44	2,006
Short Move	Distance		High	90.41	9.59	1,624
			Low	29.72	70.28	2,083
Long Move	Distance		High	92.83	7.17	15,131
			Low	54.25	45.75	10,087

Source: Calculations done by the authors using data from the SLS.

Transitions from low status to high status occupations

Table 4 presents the results from a series of logistic regression models estimating the probability of moving into the high status group between 1991 and 2001 for those who were in the low status group in 1991. The first model only includes country of birth dummies and the results are similar to those found in Table 2: individuals born in England and Wales, or born outside the Great Britain, are more likely to experience upward social mobility than those born in Scotland. This shows that individuals who have undertaken long distance moves before 1991 are more likely to experience occupational mobility later in life. Model 2 includes a range of individual and household level control variables. The largest coefficients in the model are associated with qualifications. Individuals with post-18 qualifications (either vocational or a degree) are substantially more likely to experience upward mobility than those without post-18 qualifications. This result could be interpreted as people experiencing upward mobility primarily in relation to their talents, although it is important to remember that social class remains a key influence on educational attainment.

It is important to note that after including education and a wide range of other control variables explaining social mobility, the effect of country of birth still remains significant. This demonstrates that in comparison with the Scottish born, individuals born in England or Wales, or born outside Great Britain but living in Scotland in 1991 are more likely to experience upward social mobility. In terms of the initial hypotheses set out above, there is therefore some evidence that Scotland falls short of being entirely meritocratic. There appears to be an element of outsider advantage. However, caution is necessary as selection effects might be (partly) responsible for our results. Those individuals born in England, Wales or outside Great Britain who have migrated to Scotland are likely to exhibit other characteristics associated with occupational mobility that are not included in our models, such as greater ambition, or a greater willingness to take risks (Cote, 1997).

Model 2 also shows that females are (slightly) more likely to experience upward occupational mobility than males. This might seem surprising at first, but it is important to remember that our models include only females who were in employment in both 1991 and 2001 and these females are likely to be career orientated. As expected, increasing age reduces the probability of experiencing upward occupational mobility (van Ham and Büchel, 2006). Belonging to a visible ethnic minority has a large negative impact on the probability of upward occupational mobility (Robinson, 1990; Platt, 2005). This highlights that there are significant and substantial barriers for upward occupational mobility for individuals in visible ethnic minorities.

Those living in a household which gained children between 1991 and 2001 are less likely to experience occupational mobility than those in a household with children in both years or those in a continuously childless household. Changes in household status do not seem to influence occupational mobility. Poor health, defined as having a limiting long term illness, reduces the probability of experiencing upward mobility compared to good health, except when people suffered from poor health in both years. The most likely explanation is that those with continuously poor health, but with a job in both years, have adapted successful strategies promoting occupational mobility. The final individual level explanatory variable in model 2 is housing tenure. Social renters in 1991 are the least likely to experience upward occupational mobility between 1991 and 2001, followed by private renters. Home owners are the most likely to experience upward occupational mobility.

Model 3 includes the place of residence in 2001 combined with the 1991-2001 migration status without any other control variables. The results clearly show that for all five places of residence, those individuals who have moved over a long distance are the most likely to have also experienced upward occupational mobility. Those individuals who have moved over a short distance are more likely to experience upward occupational mobility than those individuals who have not moved at all. It is important to note here that it is not possible to establish whether these are causal effect as we are not able to establish the order of the mobility event and the occupational mobility event. Nevertheless, the results are as expected (see for instance van Ham, 2001). Model 3 also shows clear evidence of

escalator effects for Edinburgh, and to a lesser extent for Glasgow. Those individuals making long distance moves into Edinburgh are the most likely to experience upward occupational mobility, followed by those who make long distance moves into Glasgow. Individuals making short distance moves in and around Edinburgh are almost as likely to experience upward occupational mobility as individuals who make long distance moves into other cities, or within and into areas with good job access within 30 minutes.

Model 4 combines all variables from models 2 and 3 to include both individual and place of residence and migration characteristics. The coefficients for the individual characteristics remain similar to those in model 2. There are slight reductions in the magnitude of the coefficients for education but these remain the most important determinants of individual upward occupational mobility. The place of residence and mobility coefficients are also smaller in Model 4 compared to Model 3, but the results are broadly the same. In all area of residence types, those individuals who made long distance moves are still the most likely to experience upward occupational mobility, with those individuals entering Edinburgh, Glasgow or other cities, experiencing the greatest advantage. The model clearly shows that Edinburgh functions as an escalator region within the Scottish context.

Table 4. Probability of moving into high occupational status group in 2001 for individuals in low occupational status group in 1991

	Model 1			Model 2			Model 3			Model 4		
	coeff	std err	sig	coeff	std err	sig	coeff	std err	sig	coeff	std err	sig
Country of Birth (reference = Scotland)												
Born England or Wales	0.392	0.051	***	0.237	0.058	***				0.259	0.058	***
Born Outside UK	0.294	0.091	***	0.305	0.104	***				0.285	0.105	***
Place of residence 2001 by mobility between 91 and 01 (reference = Low Job Access no move)												
Glasgow no move							0.279	0.096	***	0.352	0.103	***
Glasgow short move							0.785	0.090	***	0.608	0.098	***
Glasgow long move							1.430	0.195	***	0.852	0.218	***
Edinburgh no move							0.422	0.114	***	0.352	0.123	***
Edinburgh short move							1.129	0.102	***	0.730	0.111	***
Edinburgh long move							2.213	0.215	***	1.825	0.244	***
Cities no move							0.176	0.090	**	0.251	0.096	***
Cities short move							0.624	0.087	***	0.413	0.094	***
Cities long move							1.271	0.122	***	0.916	0.135	***
Medium Job Access no move							0.175	0.094	*	0.214	0.101	**
Medium Job Access short move							0.588	0.089	***	0.344	0.097	***
Medium Job Access long move							1.245	0.122	***	0.774	0.136	***
Low Job Access short move							0.259	0.108	***	0.116	0.117	
Low Job Access long move							0.825	0.153	***	0.383	0.170	**

	Model 1			Model 2			Model 3			Model 4		
	coeff	std err	sig	coeff	std err	sig	coeff	std err	sig	coeff	std err	sig
Gender (reference = female)				0.064	0.027	***				0.062	0.027	**
Age				-0.040	0.002	***				-0.036	0.002	***
Ethnic minority (reference = not ethnic minority)				-0.685	0.256	***				-0.770	0.258	***
Children in household (reference = no children 1991 & 2001)												
No Child '91, Child '01				-0.194	0.044	***				-0.183	0.044	***
Child '91 & '01				0.004	0.040					0.033	0.040	
Child '91 & no child '01				-0.024	0.039					-0.001	0.039	
Civil Status of Household (reference = couple '91 & '01)												
Couple '91 & Single '01				-0.014	0.058					-0.059	0.058	
Single '91 & '01				-0.022	0.046					-0.028	0.046	
Single '91 & Couple '01				0.188	0.042	***				0.141	0.043	***
Health Status (reference = No ill health '91 & '01)												
Ill health '91 & '01				0.426	0.233	*				0.410	0.234	*
Ill health '91				-0.251	0.148	*				-0.255	0.148	*
Ill health '01				-0.161	0.063	***				-0.153	0.063	***
Educational Qualifications (reference = no qualifications)												
Below degree				1.428	0.057	***				1.421	0.058	***
Above degree				2.007	0.090	***				1.950	0.091	***
Tenure 1991 (reference = owner occupier)												
Social Renting				-0.755	0.033	***				-0.743	0.033	***
Private Renting				-0.356	0.060	***				-0.361	0.061	***
Constant	-1.223	0.013	***	0.184	0.081	**	-1.722	0.083	***	-0.353	0.124	***
Initial log likelihood	-19609.061											
Log Likelihood	-19658.145			-160808.726			-19356.099			-16711.077		
Pseudo R2	0.002			0.075			0.017			0.081		
Number of observations	36,328											

Source: Calculations done by the authors using data from the SLS.

Retaining a high status occupation

Next we look at the factors that contribute to maintaining a high occupational status between 1991 and 2001. We estimated the probability that those who were in the high occupational status group in 1991 were also in the high status group in 2001. Model 5 in Table 5 shows that without any control variables added to the model, those born in England and Wales, and especially those born outside Great Britain are more likely to retain their high occupational status than those born in Scotland. In model 6 we add a range of individual level control variables. As a result, the country of birth variables loses much of its significance. Only those born outside the UK are slightly (at the 90% level) more likely to maintain their occupational position than the Scottish born reference group.

Many of the coefficients of the control variables are not significant. The gender variable shows that females are significantly less likely to keep their high occupational status than males. With increasing age people are less likely to maintain their high status. There is no significant effect of belonging to a visible ethnic minority group, which indicates that members of this group are as likely to maintain their position as the rest of the population. So although substantial barriers exist for ethnic minorities in terms of achieving higher status, there is no evidence that for the select group that do achieve upward mobility there is further discrimination in terms of keeping these positions. People with children in both years, or only in 1991, are slightly more likely to maintain a high status compared to those without children. Individuals with ill health in 2001 are less likely to hold their high occupational status than the other health categories. As with gaining upward mobility, post 18 qualifications are very important in maintaining a high occupational status, especially a higher degree. Finally, private renters, and especially social renters are less likely to hold on to their high occupational status than home owners.

In model 7 we included the combined place of residence in 2001 and migration status variable, but no other control variables. Only those individuals who made long distance moves to Glasgow and areas with medium job access within 30 minutes, and those who made short distance moves into Edinburgh are more likely than the reference category (individuals not moving and living in areas with low job access within 30 minutes) to maintain their high occupational status. The final model, model 8 combines all the variables from models 6 and 7. Those born outside the Great Britain are still slightly more likely to keep their occupational status. There are no significant effects of place of residence and migration status. This suggests that once you achieve a high occupational status your subsequent mobility and place of residence are not determinants for keeping that position. Individual level characteristics, and especially education, are far more important.

Table 5. Probability of staying in high occupational status group in 2001 for individuals already in high occupational status group 1991

	Model 5			Model 6			Model 7			Model 8		
	coeff	std err	sig	coeff	std err	sig	coeff	std err	sig	coeff	std err	Sig
Country of Birth (reference = Scotland)												
Born England or Wales	0.309	0.076	***	0.065	0.084					0.068	0.084	
Born Outside UK	0.735	0.152	***	0.317	0.166	*				0.307	0.166	*
Place of residence 2001 by mobility between 91 and 01 (reference = Low Job Access no move)												
Glasgow no move							0.123	0.149		0.052	0.165	
Glasgow short move							0.237	0.146		0.182	0.165	
Glasgow long move							0.525	0.295	*	0.206	0.324	
Edinburgh no move							0.121	0.164		-0.098	0.182	
Edinburgh short move							0.374	0.165	**	0.060	0.183	
Edinburgh long move							0.457	0.313		-0.090	0.340	
Cities no move							-0.053	0.140		-0.022	0.155	
Cities short move							-0.126	0.137		-0.148	0.154	
Cities long move							0.082	0.184		-0.066	0.206	
Medium Job Access no move							0.063	0.146		-0.019	0.161	
Medium Job Access short move							0.143	0.142		0.079	0.158	
Medium Job Access long move							0.478	0.193	***	0.193	0.210	
Low Job Access short move							-0.193	0.176		-0.265	0.194	
Low Job Access long move							0.191	0.229		-0.201	0.253	
Gender (reference = female)				-0.202	0.049	***				-0.202	0.049	***
Age				-0.016	0.003	***				-0.015	0.004	***
Ethnic minority (reference = not ethnic minority)				0.229	0.403					0.199	0.404	
Change in presence of children (reference = no children 1991 & 2001)												
No Child '91, Child '01				-0.059	0.080					-0.069	0.081	
Child '91 & '01				0.149	0.070	**				0.149	0.070	***
Child '91 & no child '01				0.160	0.065	***				0.166	0.065	

	Model 5			Model 6			Model 7			Model 8		
	coeff	std err	sig	coeff	std err	sig	coeff	std err	sig	coeff	std err	Sig
Change in Household (reference = couple '91 & '01)												
Couple '91 & Single '01				0.064	0.102					0.066	0.103	
Single '91 & '01				-0.037	0.080					-0.041	0.081	**
Single '91 & Couple '01				-0.025	0.080					-0.026	0.081	
Change in Health (reference = No ill health '91 & '01)												
Ill health '91 & '01				0.331	0.386					0.350	0.386	
ill health '91				-0.213	0.255					-0.206	0.255	
Ill health '01				-0.269	0.098	***				-0.263	0.099	***
Post 18 Qualifications 1991 (reference = no qualifications)												
Vocational				1.490	0.060	***				1.492	0.060	***
Degree of higher				2.070	0.080	***				2.061	0.081	***
Tenure 1991 (reference = owner occupier)												
Social Renting				-0.606	0.070	***				-0.611	0.070	***
Private Renting				-0.434	0.097	***				-0.427	0.099	***
Constant	1.558	0.023	***	1.540	0.150	***	1.538	0.129	***	1.537	0.218	***
Initial log likelihood	-7059.154											
Log Likelihood	-7037.344			-5932.301			-7029.399			-5920.315		
Pseudo R2	0.003			0.121			0.004			0.122		
Number of observations	15,024											

Source: Calculations done by the authors using data from the SLS.

Conclusions

Using a powerful longitudinal dataset, the Scottish Longitudinal Study, this paper examined two important conceptual dimensions of occupational mobility: the influence of migration on occupational mobility, and the potential for Scottish cities to act as escalators for individuals wishing to advance their occupational status. The models clearly showed that education is still the most important contributor to occupational mobility: the Scottish labour market therefore shows signs of functioning along meritocratic lines.

Our analyses showed large regional differences in opportunities for occupational achievement in Scotland. They also showed that these can be overcome by investing in long distance moved: workers who move over long distances across Scotland are more likely than those who move over short distances and non-movers to achieve upward occupational mobility. The analyses also showed that those who have made long distance moves to Scotland before 1991 (those born in England and Wales or outside Great Britain) are more likely than those born in Scotland to achieve upward mobility. The

regional inequalities in job access and opportunities for occupational achievement are a worrying feature of the Scottish labour market. But this study also showed that those who are willing to take risk and move over long distances will benefit. The effect of long distance mobility does create uneven occupational mobility outcomes between Scots and elite migrants from outside the country who belong to the managerial capitalist class (Sklair, 2001).

The most important finding is that Edinburgh, and to a much lesser extent Glasgow, operate as escalator cities in Scotland. Individuals moving to these two cities are more likely to experience upward occupational mobility than individuals moving to other parts of Scotland. The effect on occupational mobility of a long distance move to Edinburgh is almost similar in size as the effect of having a degree or higher. Edinburgh in particular, as the capital of a devolved nation, and head office location for many financial services and regional public sector bodies, provides good opportunities for rapid social and occupational mobility. There is also a positive effect for individuals already living in Edinburgh or Glasgow, with those individuals who have not moved between 1991 and 2001 still being more likely to achieve upward mobility than other non-movers in Scotland. The main contribution of this study is that it is amongst the first to show that escalator effects (Fielding, 1997) are to be found outside major world city regions. We found that on a regional level there are clear spatial inequalities in opportunities for occupational mobility.

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