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Spatial and social mobility in England and Wales: A sub-national analysis of differences and trends over time

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Abstract

Recent studies of social mobility have documented that not only who your parents are, but also where you grow up, substantially influences subsequent life chances. We bring these two concepts together to study social mobility in England and Wales, in three post-war generations, using linked Decennial Census data. Our findings show considerable spatial variation in rates of absolute and relative mobility, as well as how these have changed over time. While upward mobility increased in every region between the mid-1950s and the early 1980s, this shift varied across different regions and tailed off for more recent cohorts. We also explore how domestic migration is related to social mobility, finding that those who moved out of their region of origin had higher rates of upward mobility compared to those who stayed, although this difference narrowed over time.

KEYWORDS

census, geography, social class, social mobility

1 | INTRODUCTION

Social mobility is about movements between social and economic positions between generations: to what extent are citizens' life outcomes determined by the circumstances into which they are born and raised? A common normative interpretation is to equate the rate of social mobility within and across countries with the degree of

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“equity,” or “fairness,” in a society (Swift, 2004). Studies of intergenerational social mobility have accordingly adopted a national-level perspective: is a given society becoming more equal over time, or is social mobility grinding to a halt? (Bukodi & Goldthorpe, 2018). How do different countries compare with one another in terms of changes in social fluidity between generations? (Breen & Müller, 2020; Erikson & Goldthorpe, 1992). This historical and comparative perspective has revealed deep and persistent inequalities in life chances. However, the focus on the national level risks obscuring important variation in patterns and trends in social mobility that derive from more local spatial contexts: the local area you start your life in, and whether you move on from there, may be as important for your chances of upward (or downward) mobility as the country or historical period you were born in.

An emerging literature has begun to document the importance of place in conditioning economic opportunity, using earnings and other economic indicators as measures of social and economic position (Bell et al., 2019; Chetty et al., 2014; Corak, 2019; Deutscher & Mazumder, 2020; Heidrich, 2017). Less attention has thus far been paid to the relationship between *geographic mobility and social mobility*. Better understanding the spatial dimension of social mobility, therefore, seems key to developing and implementing policies designed to equalize life chances (UK Government, 2017).

This paper addresses this evidence gap by bringing together these two concepts—social mobility and spatial mobility—using fifty years of post-war linked census data. England and Wales represent a suitable context for examining sub-national social mobility due to the long history of national-level social mobility studies, stretching back to the early 1950s (Glass, 1954; Goldthorpe et al., 1980). Additionally, living standards have long been highly differentiated by region in England and Wales, a pattern which has become more entrenched in recent decades with the decline of traditional industries such as mining and manufacturing in the North of England and in Wales. These geographic divisions in economic performance and labor market conditions motivate several questions: Do social mobility chances differ across regions in England and Wales? Has regional variation changed across cohorts? Are rates of upward mobility different for people who move out of their region of origin compared to those who stay? It seems self-evident that these sub-national questions are important: even if a society is becoming more fluid at the national level, such overall figures are of little relevance to lived experiences of people born into areas with rates of social mobility that are notably different from the national average. While these questions hint at the key matter of causality, it is important to be clear at the outset that our empirical approach affords only descriptive inference; our study design provides no feasible strategy for identifying a *causal* effect of migration on social mobility outcomes. Nonetheless, a descriptive understanding of this relationship is of interest in its own right, as well as being a necessary pre-cursor for more causally focused analyses, insofar as this might be possible using alternative study designs and analytical approaches in future studies.

2 | RELATED LITERATURE

While recent public debate has often uncritically cast the UK as a distinctly “immobile” society, with low and declining equality of opportunity over time, the academic literature paints a rather more mixed and nuanced picture. Evidence from the birth cohort studies suggests a small increase in the correlation between earnings of parents and children for the cohorts born in 1958 and 1970 (Blanden et al., 2004). In a recent study, closely related to the present paper, Bell et al. (2019) use the LS data to estimate rates of social mobility in terms of social status, occupational average wage, education, and home ownership, finding either no change or slight increases over time in fluidity across the first three measures—but markedly reduced upward mobility for home ownership. These findings align with other studies using occupational measures of social class and status, which have found either static, or increasing social mobility over the middle and later decades of the twentieth century (Bukodi et al., 2015; Buscha & Sturgis, 2018; Lambert et al., 2007).

An important dimension to debates about social mobility is geography, as concerns about “left-behind” towns and cities are now a persistent feature on the UK policy debate. For instance, the 2019 Social Mobility Barometer

estimated that only 31% of people in the North East of England—an area with historically low economic growth and high unemployment—think that there are good opportunities for them to make progress in life, compared with 74% of people in the more prosperous South East of England, and 78% in London (Social Mobility Commission, 2020). Recognizing the importance of place in conditioning life chances, scholars have recently started to investigate the role of sub-national geographies in conditioning rates of social mobility. Examples include studies in Australia (Deutscher & Mazumder, 2020), Canada (Corak, 2019), Sweden (Heidrich, 2017), and the United States (Chetty et al., 2014) which use large administrative datasets of income and tax records to estimate social mobility rates at the small area level. In the UK, Bell et al. (2019) study mobility in imputed earnings by occupation, social status, higher education, and homeownership in England and Wales. These studies have consistently found notable sub-national heterogeneity in rates of social mobility across a range of life outcomes. We add to this growing literature by analyzing the regional patterning in *social class* mobility in England and Wales, at the level of Government Office Regions and Local Authority Districts.

An interest in how the link between socio-economic *origins* and destinations might be conditioned by locality is not new (Fox, 1985; Savage, 1988). Indeed, geographers long ago demonstrated that regional migration is associated with substantial differences in upward *intra*-generational occupational mobility (Fielding, 1997; Gordon et al., 2015; Van Ham et al., 2012). Less is known, however, about how rates of *inter*-generational mobility differ between those who stayed in the area they grew up in and those who made “long-range” moves to different regions. One hypothesis is that internal migration to large urban centers acts as a so-called “escalator effect,” enhancing the chances of occupational advancement for those who move to major conurbations (Champion et al., 2014; Fielding, 1997). Others have noted the importance of neighborhoods in fostering the conditions that facilitate or inhibit upward mobility trajectories for disadvantaged groups (Chetty & Hendren, 2018). With internal migration rates of between 51.8% in 1971 to 1981, declining to 41.0% in 2001 to 2011 (Shuttleworth et al., 2019), domestic migration is a potentially important dimension of spatially differentiated approaches to social mobility.

3 | DATA AND MEASURES

3.1 | Data

We use the Office for National Statistics Longitudinal Study (LS), a 1% sample of decennial Censuses of the population of England and Wales spanning 1971 to 2011, linked to administrative data on births, deaths, and cancer registrations (Shelton et al., 2019). The original LS sample was selected from the 1971 Census by identifying records for all individuals born on four equidistant (undisclosed) dates in the year. The LS has several attractive properties for our purposes here. First, it is the largest nationally representative longitudinal study in the UK, with a sample size of over 500,000 in each Census year and a follow-up duration of 40 years (1971–2011). Second, the LS does not face the problems of high rates of non-response and attrition that characterize sample survey and cohort studies that are typically used in studies of social mobility. Linkage rates for study members between Censuses are high, ranging from a maximum of 91.3% between 1971 and 1981 to a minimum of 87.7% between 2001 and 2011. Third, the LS includes people living in communal establishments, such as older adults and students, who are typically omitted from household surveys. Finally, the LS includes the census records of the individuals who were enumerated in the study member's household. This means the contemporaneous occupations of the parents of study members can be identified directly.

3.2 | Measures and definitions

We use the National Statistics Socio-economic Classification (NS-SEC) measure of social class. The NS-SEC was created to measure social class position via occupations, recognizing that employment relations and conditions

are central in demarcating the structure of socio-economic positions in modern societies (Rose et al., 2005). The NS-SEC measures an individual's social class position by capturing the employment relations associated with different types of labor contract. This means that the decline and disappearance of occupations and the emergence of new ones over time can be accommodated via commonalities in the nature of the labor contract. The NS-SEC comprises seven analytical occupational groupings: higher managerial and professional; lower managerial and professional; intermediate (clerical, sales, service); small employers and own-account workers; lower supervisory and technical; semi-routine; and routine. Those who are not currently in employment are asked to record their most recent occupation and this is used to derive their NS-SEC category. Our results are robust to excluding those who are currently not in employment from the analysis. To measure origin social class, we take the highest parental NS-SEC—the so-called “dominance method”¹ (Erikson, 1984).

For sub-national areal units, we use Government Office Regions (GOR), comprising nine regions in England, with Wales forming the tenth. At the lower spatial scale, we use the 1991 Census Local Authority Districts (LAD), comprising 404 LADs during our study period. To account for changes to LAD boundaries over time we use the harmonized geography indicators developed by CeLSIUS, the LS support team.

3.3 | Sample construction

We construct a core sample of study members who were aged 8 to 18 years at: the 1971 Census (“cohort 1,” born 1953–1963), the 1981 Census (“cohort 2,” born 1963–1973), and the 1991 Census (“cohort 3,” born 1973–1983). We follow these cohorts across subsequent censuses. We measure their destination social class 20 years later,² in either the 1991, 2001, or 2011 Censuses, respectively, when the study members were between 28 and 38 years of age. The lower end of the 28–38 age range for observing destination social class is potentially too early in life for some individuals, who have not reached occupational maturity by the age of 28. However, narrowing the age range substantially reduces the sample size available for analysis. We have re-run all analyses using a 30–38 age range and the point estimates remain virtually unchanged. We therefore present results for the 28–38 range here but will make the results for the 30 to 38 range available upon request. Table 1 shows the structure of the data used in the core analyses. For instance, we have 58,465 study members aged 8–18 years with complete data on destination NS-SEC who were enumerated in the 1971 Census and who are also observed at the 1991 Census. The smaller sample size for the 1973–1983 cohort is due to a lower birth rate rather than dropout from the study. Our analysis sample comprises a total of 168,777 observations across the three cohorts.

4 | EMPIRICAL APPROACH

We report estimates of absolute and relative mobility by region of origin and cohort. We focus on movements from NS-SEC classes 3–7 to classes 1 and 2, rather than movements between adjacent classes, as this type of “long-range”

TABLE 1 Structure of analytical sample and number of complete cases

Cohort	Origin census year	Birth year	Destination Census year		
			1991	2001	2011
1	1971	1953–1963	58,465		
2	1981	1963–1973		62,112	
3	1991	1973–1983			48,200

Notes: Data source is the ONS-LS restricted to study members aged 8–18 years at origin, with non-missing values for region at origin and destination, own NS-SEC, and parental NS-SEC.

mobility is the most relevant form of mobility to public and policy debate. Aggregating classes in this way is common in studies on the intersection between spatial and social mobility (Friedman & Macmillan, 2017; Van Ham et al., 2012), as it serves to increase the precision of estimates which, even with the very large sample size of the LS, are noisy when broken down over seven social class groups by sex and by region, and even more so for LAD-level estimates.

NS-SEC class 4, “self-employed and small employers” does not fit easily into an ordinal ranking of occupations. Recent studies have grouped NS-SEC classes 3, 4, and 5 into one intermediate category, such that “horizontal” movements between groups 3, 4, and 5 do not constitute upward or downward mobility (Bukodi et al., 2015; Buscha & Sturgis, 2018). By including NS-SEC 4 in the “lower” group of our binary categorization we are consistent with these studies by treating NS-SEC 4 as being lower in a rank order of material advantage than classes 1 and 2, with movements between NS-SEC 4 and the adjacent categories treated as “horizontal.” An alternative approach is to omit NS-SEC 4, as in Erikson and Goldthorpe (2010), limiting the analysis to employees. These different treatments of the self-employed make little difference to the substantive interpretation of our findings (see Online Appendix, Figure S1).

As is standard in the social class mobility literature, absolute mobility is the unconditional comparison of origin and destination positions. In a cross-classification of origin and destination state, absolute *upward* mobility constitutes the proportion of study members in the upper diagonal of the table—those who moved to a higher destination than their origin. We report relative mobility using odds ratios, computed as the ratio of the odds of being in a high rather than low destination among high origin study members, to the corresponding odds among low origin study members.³ These odds ratios can be interpreted as the risk of upward mobility into classes 1 or 2 for someone from classes 1 or 2 origin *relative* to someone from classes 3–7 origin. In this way, they adjust for changes in the distribution of occupational social class groupings over time.

We report these absolute and relative mobility rates separately for (1) those who are observed in the same region at both origin and destination (the “stayers”); and (2) those who have moved from their region of origin to a new region (the “movers”). There is a third group, comprising 4% of the sample, who were observed in a particular region at social origin, when aged 8 to 18 years, in a different region at the subsequent census, 10 years later, and then in their original region of origin again in the census 20 years later. We include this group in the “movers” category, although the results are substantively unchanged if they are defined as “stayers.” It may of course be important to consider not only mover/stayer status but also the nature of the specific migratory movements. For example, a move from the North East to the North West may have different implications for social mobility than a move from the North East to London. However, given the very large number of possible moves between regions, we focus on a set of specific transitions as a case study of four archetypal groups. These are moves for people whose origin regions are in the North of England or Wales who: (1) remained in the same region in the North or Wales (“stayers”); (2) moved to a different region in the North or Wales (“moved within the North or Wales”) 20 years later; (3) moved out of the North or Wales, but not to London (“moved elsewhere”) 20 years later; (4) moved to London 20 years later.

We report our core results pooled by sex, but we have also conducted all analyses for men and women separately, with results reported in the Online Appendix. For the most part, the broad trends are similar for men and women, but we note any relevant differences. Because mobility rates using LADs are based on small sample sizes, we pool data across the three cohorts for these analyses.

5 | RESULTS

5.1 | Absolute mobility

Consistent with the findings of existing studies of this period, we find a small increase in absolute mobility over the three cohorts (Bukodi & Goldthorpe, 2018; Buscha & Sturgis, 2018). Online Appendix Table A1 reports these

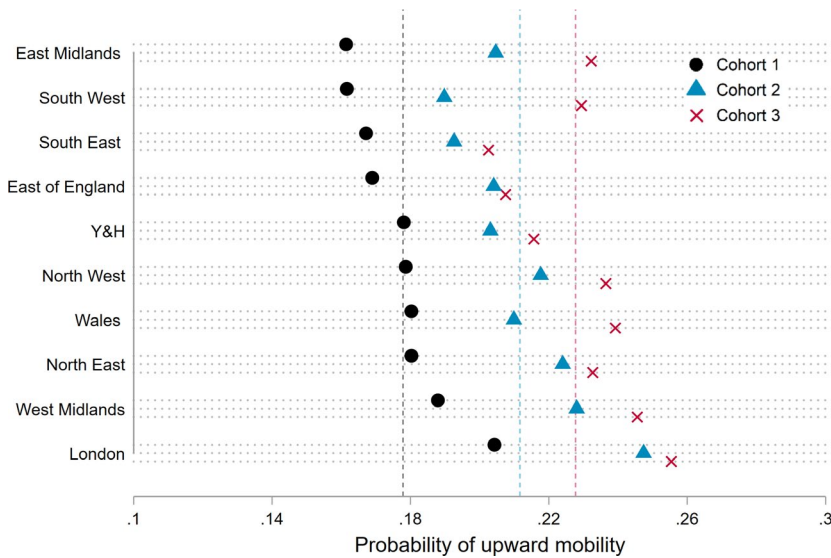


FIGURE 1 Unconditional probability of absolute upward mobility by cohort and region. Data source is the ONS-LS restricted to study members aged 8 to 18 years at origin

national-level mobility figures. The total absolute mobility probability increases from 0.32 for the first cohort, to 0.37 and 0.38 among the second and third cohorts, respectively.⁴ These total estimates combine a small increase in upward absolute mobility from 0.18 to 0.23 with static downward mobility from 0.14 to 0.15 between the first and last cohorts. Considering men and women separately, the national estimates for total mobility are similar, though women experienced a larger increase in upward mobility than men, and men a larger increase in downward mobility.

Figure 1 shows estimates of upward absolute mobility by region.⁵ London has the highest upward mobility for all three cohorts, the opposite of what Friedman and Macmillan (2017) found using the UKHLS. This shows the importance of the difference in comparisons according to the region of origin and destination, with Friedman and Macmillan using the latter approach. For the cohorts born between the late 1950s and the early 1980s, there is a clear upward mobility advantage to starting out life in London. For the first cohort, the West Midlands has the next highest upward mobility followed by the North East, Wales, the North West, and Yorkshire and Humberside, which all had similar proportion experiencing upward mobility of around 18%. The lowest levels of upward mobility in the first cohort were in Southern and Eastern regions, where upward mobility was 3 to 4 percentage points lower than in London. All regions experienced similar increases in upward absolute mobility from the first to the second cohort, with smaller increases and more variation in the magnitude of change between the second and third cohorts. The South East, East of England, and Yorkshire and Humberside had the lowest levels of upward mobility for the most recent 1973–1983 cohort, with these regions now having lower levels of upward mobility than the East Midlands and the South West. The West Midlands had the second-highest upward mobility in all three cohorts and, by the 1980s, was only 1 percentage point lower than London. Online Appendix Table S2 reports absolute mobility probabilities separately by sex and does not show any marked differences.

5.2 | Relative mobility

Table 2 reports three quantities for each region: (1) the transition frequencies between origin and destination social class; (2) the odds of being in the high destination category, for the low and high origin groups separately; (3) and the ratio of these odds. The odds (2) are an alternative measure of absolute mobility, while the odds ratios

TABLE 2 Transition frequencies, odds, and odds ratios of upward social mobility, by region and cohort

Cohort	North East		North West		Yorks & Humberside		East Midlands		West Midlands							
	Destination		Destination		Destination		Destination		Destination							
	0=low	1=high	Odds/OR	0	1	Odds/OR	0	1	Odds/OR	0	1	Odds/OR				
1	0	2,169	631	0.29	4,914	1579	0.32	3,569	1,071	0.30	2,660	742	0.28	3,769	1,234	0.33
	1	345	355	1.03	1,150	1,196	1.04	741	633	0.85	612	583	0.95	813	750	0.92
				3.54			3.24			2.85			3.42			2.82
2	0	1,656	752	0.45	3,912	1,921	0.49	3,194	1,340	0.42	2,427	1,056	0.44	3,190	1,577	0.49
	1	454	495	1.09	1,358	1,635	1.20	976	1,087	1.11	792	885	1.12	980	1,168	1.19
				2.40			2.45			2.65			2.57			2.41
3	0	1,048	574	0.55	2,502	1,498	0.60	2,023	1,020	0.50	1,657	961	0.58	2,085	1,268	0.61
	1	345	500	1.45	909	1,426	1.57	695	992	1.43	610	910	1.49	714	1,097	1.54
				2.65			2.62			2.83			2.57			2.53

Origin	East of England		London		South East		South West		Wales							
	Destination		Destination		Destination		Destination		Destination							
	0	1	0	1	0	1	0	1	0	1						
1	0	2,848	937	0.33	3,698	1,509	0.41	3,660	1,328	0.36	2,526	764	0.30	1,945	603	0.31
	1	923	838	0.91	1,057	1,123	1.06	1,483	1,473	0.99	764	673	0.88	402	395	0.98
				2.76			2.60			2.74			2.91			3.17
2	0	2,446	1,285	0.53	2,593	1,636	0.63	3,339	1,790	0.54	2,411	1,051	0.44	1,723	738	0.43
	1	1,118	1,448	1.30	979	1,405	1.44	1,731	2,433	1.41	943	1,133	1.20	522	533	1.02
				2.47			2.27			2.62			2.76			2.38
3	0	1,863	1,104	0.59	1,761	1,302	0.74	2,420	1,559	0.64	1,643	1,036	0.63	1,136	654	0.58
	1	911	1,443	1.58	762	1,273	1.67	1,374	2,344	1.71	736	1,101	1.50	374	570	1.52
				2.67			2.26			2.65			2.37			2.65

Notes: This Table reports cross-tabulated frequencies of origin and destination status by region and cohort. It reports the odds of being in a "high" destination category for both low and high origin, and then ratio of these odds (OR). Data source is the ONS-LS restricted to study members aged 8 to 18 years at origin. The bolded numbers are the main statistics of interest, bolding these figures make it easier to compare the numbers across the table.

(3) denote relative mobility. The lowest level of social fluidity was for the first birth cohort in the North East, with the odds of ending up in a managerial or professional occupation 3.54 times greater for those who started out in classes 1 and 2, compared to an individual from social classes 3 to 7. This contrasts with the 1963–1973 London cohort, which had the lowest odds ratio of 2.27. The 1953–1963 cohort had the lowest rate of social fluidity in every region, with the industrial regions of the Midlands, Wales, and the North having lower relative mobility than London and the South and East of England.

All regions saw an increase in relative mobility between cohorts 1 and 2, with the largest increases in the regions with the lowest baseline fluidity: Wales, the North West, the East Midlands, and the North East. There seems then to have been some degree of “catching-up” and evening out over time, with less variability in relative mobility across regions for the second compared to the first cohort. Between the two later cohorts, all regions bar the South West, which experienced a small additional increase in fluidity, saw either no change (East Midlands, London, South East) or a decline (North East, North West, Yorkshire & Humberside, West Midlands, East of England) in relative mobility. These regional patterns do not show notable differences by sex (see Online Appendix Tables S3 and S4), although they are somewhat more pronounced for men. While there were, then, small increases in absolute and relative mobility in every region between the first and third cohorts, the main picture is of persistent and substantial inequalities. In all regions of England and Wales, children born to managerial and professional parents were at least two and a half times more likely to end up in those occupational groups than children born into NS-SEC groups 3–7.

Next, we consider variation in social mobility at a lower geographical level—the Local Authority District (LAD). We do this by estimating logistic regressions with destination NS-SEC as the outcome and origin NS-SEC as the predictor within each LAD separately, reporting the coefficients from these models as odds ratios. In order to maintain samples of sufficient size, we pool the data across cohorts, although confidence intervals remain wide. Our focus is therefore on presenting the broad pattern across and within LADs rather than on statistical tests of zero difference in the point estimates for specific LADs. In total, our results yield 403 separate relative social mobility estimates, one for each LAD (except for the City of London for which a model could not be estimated due to small cell sizes).

Figure 2 presents box plots of the LAD-level odds-ratio estimates by Government Office Regions. It shows substantial variation in social mobility across England and Wales within regions. The point estimates range from a minimum of 1 to a maximum of 11, meaning there are LADs where the parent-child association is 11 times stronger than in the most socially “fluid” districts. However, the majority of districts fall within a considerably narrower range than this; from the 25th to the 75th percentile, the range of parent-child associations is between 2.2 and 3.2, with the 50th percentile having an odds ratio of 2.7. London has a large number of LADs with high rates of relative mobility compared to other regions. Nonetheless, there are also LADs in London with very low levels of fluidity. A similar pattern is evident in the South West, which has some of the least and the most socially mobile districts in the country. In general, all regions in England and Wales contain districts in the top and bottom 20th percentile nationally, highlighting the significant variation in social mobility evident within regions.

These findings are important when compared to results from Table 2. Table 2 suggests that regional variation in mobility rates exists, but the time element, especially the difference between the first and second cohort (those born in the 1950s compared to those born in the 1960s) also plays a significant role. However, Figure 2 shows that variation in fluidity between LADs within regions which is at least as substantively important. Moving from the 75th percentile LAD to the 25th percentile LAD is associated with a 0.94 point reduction in the odds ratio, a difference which is similar in size to some of the larger declines between cohorts seen in Table 2.

To further illustrate this point, Figure 3 plots the odds ratios for GORs and LADs on a map of England and Wales, pooled over the three time periods. At a regional level, a North-South gradient in social mobility is clearly evident, with London standing out as the most mobile region. However, when disaggregated at the LAD level, we can see that every region (including London) contains areas with both high and low levels of social mobility. Indeed most LADS have a border with a district with a substantially different level of social mobility to its own.

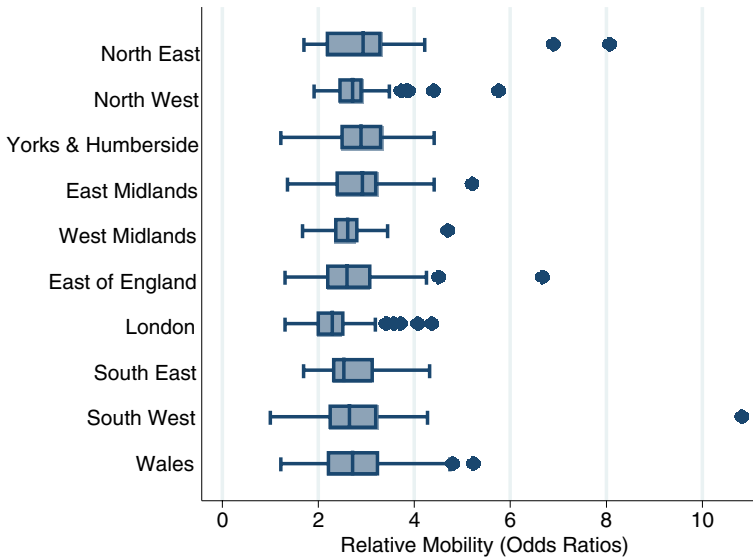


FIGURE 2 Box plot of relative mobility rates by district within regions (pooled over all time periods). Data source is the ONS-LS. The point estimates are odds ratios for each Local Authority District, where a higher value indicates a stronger link between parental status and child status, and therefore lower social mobility. Outliers are rates that are beyond the standard 1.5 x interquartile whisker range. No data for City of London due to small cell sizes

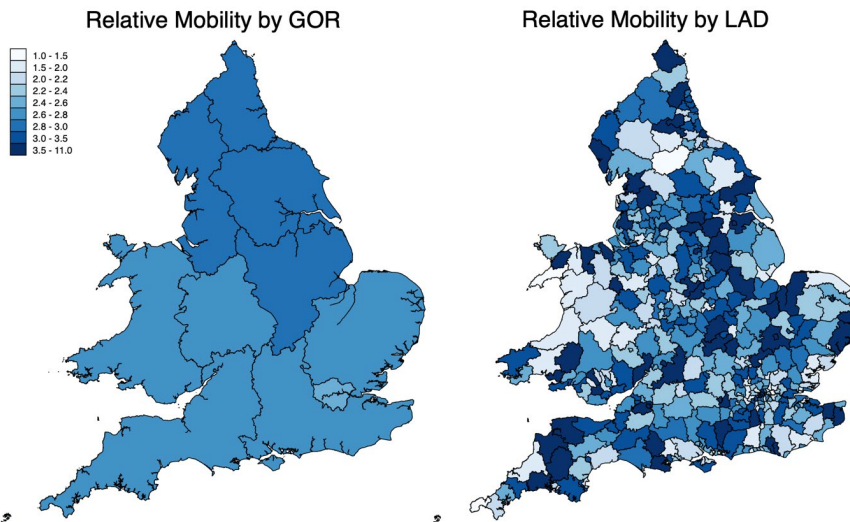


FIGURE 3 Relative mobility map of England and Wales by Government Office Region and Local Authority Districts (pooled over all time periods). Data source is the ONS-LS. No data for City of London due to small cell sizes. Estimates are odds ratios, where a higher value and darker color indicate a stronger link between parental status and child status, and therefore lower social mobility

This suggests that a policy agenda that adopts a regional approach to increasing social mobility, or which focuses even more narrowly on a “North-South divide” risks neglecting substantial pockets of low social mobility in the more affluent regions of the country.⁶

5.3 | Spatial and social mobility

Next, we turn to a description of the distribution of mobility transitions, pooled over the three cohorts.⁷ Table 3 reports, for each region, the percentage of people who, between origin and destination: (1) remained in the same region and (2) moved to a different region.⁸ 74% of study members remained in the same region between origin and destination, and the remaining 26% moved to a new region.

Table 4 presents absolute (columns 1 and 2), and relative (columns 4 and 5) mobility estimates, separately for “movers” and “stayers.” The ratios of these estimates are reported in columns 3 and 6. In eight out of ten regions, movers had higher rates of upward mobility compared to stayers. Movers from the North East, North West, and Wales had the highest absolute mobility rates compared to the stayers in their respective regions, with the mover probability of upward mobility approximately 1.5 times higher than stayers. The two exceptions are London and the South East, where there is no difference in absolute mobility between movers and stayers. One possible reason for this pattern is that the majority of moves out of London are to the South East, and vice versa.

The difference in relative mobility between movers and stayers across regions is more varied. For instance, for Welsh “stayers,” the odds of ending up in social classes 1 and 2 are 2.61 times higher for those who originated in classes 1 & 2 compared to those from classes 3 to 7. Among Welsh “movers,” the corresponding figure is 1.80, indicating there was less dependence on social origin among the movers than the stayers. Column 6 in Table 4 reports the mover relative mobility odds ratio divided by the stayer relative mobility odds ratio. Note that because larger odds ratios indicate lower relative mobility, a lower ratio now indicates higher relative mobility among movers. For instance, of those who have Wales as their origin region, movers have a relative mobility odds ratio of 1.80, which is 0.69 times the “stayers” odds ratio of 2.61, indicating the movers were more socially mobile. We refer to these “ratios of odds ratios” in Column 6 as “higher-level ratios.”

The majority of higher-level ratios are close to or below 1, indicating higher relative mobility for movers, which is broadly in keeping with the findings for absolute mobility. However, the relative mobility odds ratios are more variable than the absolute mobility estimates, and there is no North-South gradient evident in the difference between relative mobility rates between movers and stayers. For example, those who moved out of the North West, Yorkshire & Humberside, or Wales have higher-level ratios below 1, indicating higher relative mobility among movers than stayers. However, movers out of the North East have odds ratios that were 1.24 higher than those who

TABLE 3 Migration rates by region of origin

Region of origin	Stayed in region	Moved region	N
	Row %	Row %	
North East	0.78	0.22	9,324
North West	0.79	0.21	24,000
Yorks. & Humberside	0.79	0.21	17,341
East Midlands	0.75	0.25	13,895
West Midlands	0.77	0.23	18,645
East of England	0.72	0.28	17,164
London	0.61	0.39	19,098
South East	0.71	0.29	24,934
South West	0.75	0.25	14,781
Wales	0.78	0.22	9,595
National	0.74	0.26	168,777

Notes: Data source is the ONS-LS restricted to study members aged 8–18 years at origin.

stayed, indicating lower relative mobility compared to stayers. Note, however, that the North East has a smaller sample size than other regions for this quantity, so this estimate should be treated with some caution.

Table 4 shows that movers and stayers differed in their social mobility outcomes but it provides no information about *where* people moved from and to because it pools across regional origins and destinations. However, estimating social mobility rates across all possible origin-destination transitions becomes unfeasible due to the small cell sizes for many transitions. Therefore, in Table 5, we consider study members who began their lives in the North of England or Wales and either stayed in this broad region at destination, moved to a different GOR within that broad region, moved to London, or moved to any other region. While somewhat arbitrary in terms of the areas that this approach combines, it is nevertheless based on the “North-South” economic divide that has featured prominently in British political debate for much of the post-war period. Indeed, this economic disparity, and the linked idea that social mobility is worse in the North, was prominent in the 2019 General Election, when the notion of “leveling up” between North and South featured heavily in the Conservative campaign.

Across all cohorts combined, 21% of those who have the North or Wales as their origin region moved from a low origin social class to a high origin social class. This figure is slightly lower for those who remained in the North or Wales (19%), and higher among the three mover groups. Across all cohorts, absolute mobility is highest among movers—whether the move was to another GOR within the North/Wales, to London, or elsewhere—compared with remaining in the North or Wales. In cohorts 1 and 2, absolute mobility was highest among those who moved to London, however for cohort 3, there was a tail-off in the rate of upward mobility for movers to London, with no difference in the probability of upward mobility compared to stayers. The highest level of upward mobility for cohort 3 was among those who moved to a different region within the North or Wales or moved to another region other than London.

Section (b) of Table 5 reports on relative social mobility, using odds ratios, within each geographical transition subgroup. For example, among those who stayed in the North or Wales, the odds of ending up in classes 1 and 2 destination were 2.58 times greater among those with classes 1 and 2 origin status, compared to individuals from classes 3 to 7 origin. Movers had higher rates of relative mobility than stayers, irrespective of the destination, with the highest rate of fluidity observed for movers to London. The “London premium” in social mobility is not evident for all cohorts, as it had disappeared entirely for cohort 3.

6 | DISCUSSION

An important and growing literature in economics has focused on intergenerational income mobility at the sub-national level (Chetty et al., 2014; Corak, 2019; Deutscher & Mazumder, 2020). We have extended this here by considering sub-national intergenerational mobility between social classes. We have also explored the nexus between spatial and social class mobility: do people who make long-range internal migrations have different social mobility experiences compared to people who stay in their region of origin? Our findings reveal a now familiar story of strong dependence of social class position in adulthood on the social class of a person's family in childhood, but now with a strong spatial patterning. At the national level, both absolute and relative mobility increased by a small amount between cohorts born between 1953–1963 and 1973–1983. However, this small overall increase in social mobility was not distributed evenly across regions or generations.

At the sub-national level, regions in the North of England and Wales faced the most pronounced levels of immobility in the first cohort (born 1953–1963), when labor markets in these regions were concentrated in traditional industrial and manufacturing sectors. For the second cohort, born between 1963 and 1973, these regions experienced something of a “catch-up” in absolute and relative mobility, moving closer to the levels observed in the more affluent Southern regions, as occupational structures shifted toward managerial and professional services.

TABLE 4 Social mobility rates by “mover/stayer” status pooled over three cohorts

	Absolute upward mobility			Relative mobility			N	% mover
	Stayers	Mover	Ratio _{move/stay}	Stayers	Mover	Ratio _{move/stay}		
	(1)	(2)	(3)	(4)	(5)	(6)		
North East	0.19	0.27	1.42	2.25	2.78	1.24	9,324	22.4
North West	0.20	0.26	1.30	2.49	2.45	0.98	24,000	20.8
Yorks. and Humberside	0.18	0.25	1.39	2.53	2.32	0.92	17,341	21.3
East Midlands	0.18	0.25	1.39	2.29	2.45	1.07	13,895	25.4
West Midlands	0.21	0.26	1.24	2.26	2.28	1.01	18,645	23.4
East of England	0.19	0.21	1.11	2.27	2.45	1.08	17,164	28.3
London	0.23	0.23	1.00	2.50	2.34	0.93	19,098	39.4
South East	0.19	0.19	1.00	2.38	2.44	1.03	24,934	29.1
South West	0.18	0.24	1.33	2.35	2.17	0.92	14,781	25.4
Wales	0.18	0.29	1.61	2.61	1.80	0.69	9,595	22.2

Notes: This table reports absolute and relative mobility estimates by region of origin and “mover/stayers” status. The data source is the ONS-LS restricted to study members aged 8–18 years at origin.

TABLE 5 Social mobility rates by type of transition

	All cohorts	Cohort 1	Cohort 2	Cohort 3
(a) Absolute upward mobility rate				
<i>All who begin in North or Wales</i>	0.21	0.18	0.21	0.23
Stayers	0.19	0.16	0.20	0.22
Moved to different region in the North or Wales	0.25	0.23	0.25	0.27
Moved to London	0.27	0.28	0.31	0.22
Moved elsewhere out of the North or Wales	0.27	0.27	0.27	0.27
(b) Relative mobility - odds ratios				
<i>All who begin in North or Wales</i>	2.86	3.17	2.50	2.69
Stayers	2.50	2.67	2.23	2.36
Moved to different region in the North or Wales	2.47	2.92	2.05	2.25
Moved to London	2.05	2.48	1.37	2.45
Moved elsewhere out of the North or Wales	2.20	2.33	1.91	2.03

Notes: Data source is the ONS-LS restricted to study members aged 8 to 18 years at origin, whose origin region is in North East, North West, Yorkshire, and Humberside or Wales.

However, despite this regional convergence, the increase in absolute mobility between the first two cohorts petered out for the most recent cohort (born 1973–1983), with the majority of regions experiencing nugatory increases in absolute mobility. More striking, however, are the findings for relative mobility. Compared to the second (1963–1973) cohort, relative mobility decreased slightly across the regions of Northern England, and in Wales, for the 1973–1983 cohort, whereas London, the South West, and the South East experienced no further change in relative mobility. This stalling in relative mobility in the most recent cohort aligns with other studies which have documented the fall in living standards and widening economic inequality facing people entering the labor market in the first decades of the 21st century. This period saw a boom in the “gig economy,” with labor contracts increasingly characterized by a lack of autonomy, employment rights, job security, set against a backdrop of declining union membership and increased globalization. Many in this cohort also reached occupational maturity around the time of the 2008 economic crash and therefore experienced a decline in employment prospects, real wages, and home ownership.

This pronounced sub-national heterogeneity in social mobility has motivated a number of regional regeneration policies in Britain, the most recent incarnation being the “leveling up” agenda of the current Conservative Government. What this slogan means in policy terms remains unclear but the over-arching objective is to refocus resources from London and the South East to post-industrial areas in Wales, the Midlands, and the North of England. While these archetypal divides receive, to some degree, justified attention in policy-making and political debate, recent evidence has highlighted the importance of a more localized lens for understanding how geography affects opportunity (Chetty et al., 2014). Our analysis supports this more fine-grained spatial focus; we find substantial heterogeneity in social mobility *within* the broad regions. Indeed, all regions in England and Wales contain districts in the top and bottom 20th percentile of social mobility nationally.

A natural question that arises from this observed geographical patterning is whether internal migration between regions is associated with differences in intergenerational social mobility. We find that people who move from their region of origin had higher rates of social mobility compared to “stayers” and that movers to London had

notably higher chances of upward mobility, although this was limited to the first two cohorts. Thus, our findings align with contemporary accounts of London conferring a social mobility premium on its emigrants. However, as Champion and Gordon (2019) also found using the LS, this has not been the case consistently over time. Indeed, for the most recent cohort in our analysis, the probability of upward mobility was highest for those who moved between regions in the North and Wales. This shifting pattern may reflect recent efforts to regenerate Britain's "second-order cities" outside of London, through expansion of public administration and financial services in the 1990s and 2000s and the opportunities for upward mobility this conferred (Champion et al., 2014; Champion & Townsend, 2011).

As noted at the outset, an important caveat on the interpretation of our findings is the extent to which any of the associations we report reflect causal effects of migration. The mobility estimates we present likely comprise a mix of selection and causal effects in unknown quantities and we have not attempted to identify their distinct components in our analyses. The decision to migrate, especially over long distances, is a function of complex push- and pull-factors that are subject to substantial and heterogeneous economic constraints. In particular, the freedom to move between regions is itself conditioned by the economic resources available to individuals and households. In this case, attaching a causal interpretation to our estimates would likely overstate the impact of internal migration on social mobility. Nevertheless, while it is beyond the scope of this study to draw causal inferences of this nature, we consider that establishing as a descriptive fact that internal migration between regions is associated with different patterns and trends in intergenerational social mobility is an important contribution in its own right.

Much of the debate around social mobility has focused on national trends and international comparisons: is Britain becoming fairer over time, or is social mobility grinding to a halt? How socially mobile is Britain compared with similar countries? Our research demonstrates that attention must also be focused on more localized disparities because variation in social mobility is greater within than it is between regions and cohorts. While our analysis shows that "movers" tended to have higher levels of social mobility, the other side of the coin is the lower prospects of the people who remain in their region of origin. Facilitating spatial mobility of those who are able and willing to move does not solve the problem of "left-behind" towns and cities for those who continue to live in them. These ideas resonate with the idea of "upgrading the class structure" (Bukodi & Goldthorpe, 2018): not only expanding the set of available jobs in the salariat classes, but also improving the working conditions—autonomy, employment rights, and security—of occupations across the class structure, and indeed according to our findings, across the spatial dimension.

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CONFLICT OF INTEREST

There is no conflict of interest from any of the authors.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the Office for National Statistics (ONS). Restrictions apply to the availability of these data, which were used under license for this study. Data, including

code files, are available with the permission of the ONS from the Celsius support team (celsius@ucl.ac.uk). ONS research accreditation and project approval are required in all circumstances.

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ENDNOTES

- ¹ Strictly speaking, we use a “quasi-dominance approach” because the dominance approach requires further gradation by number of working hours and this information is not recorded in the census.
- ² We also explore outcomes 30 years later (respondents aged 38–48) to ensure that our results are robust to the final social position of individuals. Our results are stable to varying the destination age.
- ³ We have explored several alternative approaches, including using Linear Probability Models and using average marginal effects from logit models rather than odds ratios, which do not alter our conclusions.
- ⁴ In analyses based on a 5-point NS-SEC classification, we note that the corresponding total mobility figures are essentially static over time (0.69 for cohort 1, 0.71 for cohort 2, and 0.69 for cohort 3).
- ⁵ The underlying frequencies for Figure 1 are reported in Online Appendix Table S1.
- ⁶ A map of London only Local Authority Districts is presented Online Appendix Figure A1.
- ⁷ In further analyses (not shown), we find little evidence for differences in these spatial mobility patterns by sex and a reduction in mobility rates over time.
- ⁸ We define stayers as individuals who remained in the same region in consecutive censuses while movers are defined as those who moved out of their origin region in one of the two follow-up censuses. Different mover patterns exist but the majority end their destination in another region 20 years later. Circa 14% of all movers return to their origin region. A sub-analysis of mover groups shows that all groups are significantly more likely (two to three times) to have degree qualifications.

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SUPPORTING INFORMATION

Additional Supporting Information may be found online in the Supporting Information section.

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