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SHORT ARTICLE



Onwards and upwards? Migration and social mobility of the UK graduates

Bozena Wielgoszewska 

ABSTRACT

Ensuring equal opportunity for people from diverse backgrounds is a major political concern, and spatial aspects to this debate relate to the availability of opportunity in different regions of the UK. In particular, migration between the regions of the UK is common amongst domestic students and graduates, and has been shown to have consequences for both the region of origin and the destination. Despite the recognition that migration is not a one-off event, but an ongoing process, empirical studies rarely operationalize it in ways reflecting this continuity. This study contributes to filling the above-described gap by investigating how the patterns of graduates' migration across their life-course relate to their intra-generational social mobility. Longitudinal data, extracted from the 1970 British Cohort Study, and sequence analysis are used to derive the typologies of these patterns. A set of logistic regressions is used to investigate the relationship between these two, simultaneous aspects of graduates' life-courses over the long term. The findings indicate that graduates' migration across their life-course is significantly related to their intra-generational social mobility. In particular, temporary migration safeguards the advantaged position of the most privileged, in line with the notion of a 'glass floor'. At the same time, it can create a 'glass ceiling' for those on less privileged trajectories. In the light of these findings, both academics and policy-makers are encouraged to incorporate migration, both theoretically and practically, into their research approaches.

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KEYWORDS

graduates; migration; intra-generational social mobility; sequence analysis

JEL

J61; J62; R1

INTRODUCTION

Graduate migration has consequences for both the region of origin and the destination, as discussed in the comprehensive review conducted by Faggian, Rajbhandari, and Dotzel (2017). This review paints the picture of the destination as an overall 'winner' of these processes. In contrast, the region of origin can experience a 'brain drain', by which it loses a potential source of innovation and growth. However, these short-term losses can be compensated by the long-term gains, if these graduates return after acquiring additional skills in the host region. This brings to the fore the relevance of temporary migration for both the region of origin and the destination.

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Despite the recognition that students' and graduates' migration is not a one-off event, but an ongoing process by which they select themselves into regions that offer them higher quality education and better jobs (Smith & Sage, 2014), it is often implicitly assumed that the chances of individuals are solely dependent upon their place of birth. For example, in 2016, the Social Mobility Commission developed the social mobility index (SMI) in order to 'remove obstacles to social mobility'. The SMI combined several measures of local economic opportunity, such as the likelihood of obtaining a degree from one of the most selective universities in the country and entering a managerial or professional occupation. It highlighted that young people from disadvantaged backgrounds who live in London are more likely to achieve good outcomes, while industrial towns and other major cities are providing them with limited opportunities. However, the SMI did not take into account the possibility of migration, even though university attendance and first employment in Britain is generally associated with high levels of interregional flows of human capital (Faggian & McCann, 2009). Thus, migration can be seen as a form of human capital investment.

Furthermore, empirical studies rarely operationalize migration in ways reflecting this continuity, or incorporate frequent job changes and work interruptions, which can result in unstable intra-generational social mobility progression. As a result, the conclusions are to a large extent dependent on the time point at which the analysis is conducted. Thus, the question of 'how do the patterns of graduates' migration across their life-course relate to their intra-generational social mobility?' is yet to be answered.

This study adds the dimension of spatial mobility to existing debates concerning the links between social mobility and geography, by developing an 'origin–migration–destination' (OMD) framework. It further contributes not only by recognizing that both intra-generational social mobility and interregional migration as simultaneously experienced, dynamic processes, but also by operationalizing these processes by the use of longitudinal data, extracted from the 1970 British Cohort Study, and sequence analysis. This attempt at untangling some of the complexities involved in the relationship between social and spatial mobility reveals the importance of temporary migration. While temporary migration to areas offering more opportunities can assist those from more privileged backgrounds in maintaining a competitive edge, it can introduce an interruption to linear progression more commonly experienced by the less advantaged. In the light of these findings, both academics and policy-makers are encouraged to incorporate migration, both theoretically and practically, into their research approaches.

ORIGIN–MIGRATION–DESTINATION FRAMEWORK

Cohort studies are often used in social mobility research owing to their unique capability of capturing the change in an individual's social position over time. The majority of these studies compare various aspects of the lives of different generations. Previous studies, based on the 1970 British Cohort Study, have led to divergent findings (Erikson & Goldthorpe, 2010). Economists, focused on the income disparities between generations, found declining rates of mobility and 'inter-generational income persistence' (e.g., Blanden, Gregg, & Macmillan, 2006, 2013). At the same time, sociologists, mainly concerned with the inter-generational disparities in social classes, found no decline in the mobility rates (e.g., Bukodi, Goldthorpe, Waller, & Kuha, 2015; Goldthorpe & Jackson, 2007). To date, a vast majority of these studies compared the individual's situation with the situation of their parents at specific points in time (inter-generational social mobility), and intra-generational social mobility has taken secondary place (Tampubolon, 2009).

Further debates relate to the capabilities of various factors to facilitate upward social mobility. In the sociological literature, various forms of the 'origin–education–destination' (OED) triangle are tested to investigate the degree to which education plays a mediating role in the impact of social class of origin on the social class of destination (e.g., Goldthorpe, 2016). At the same

time, the geographical studies tend to focus on the role of migration. These are often rooted in the ‘escalator region theory’ (ERT). The ERT recognized London as an ‘escalator region’, which enhances people’s life chances. In his seminal work, Fielding (1992) presented London as an ‘upward social class escalator’ that attracts a more-than-proportional share of upwardly mobile adults, promotes both in-migrants and the local labour at a faster rate than other regions, and those who achieved a higher status ‘step off’ the escalators by migrating away close to the time when they reach retirement age. More recently, other big cities in the UK have been recognized as ‘second order escalators’ (Champion, Coombes, & Gordon, 2014; Van Ham, Findlay, Manley, & Feijten, 2012).

With an increasing proportion of the population being highly educated, and graduates being especially geographically mobile (Abreu, Faggian, & McCann, 2015), the extent to which this theory can be confirmed in the graduate context becomes of critical concern. The ERT simplifies the migration processes to a one-off decision in the consequence of which people during the early stages of their careers either stay in escalators, stay elsewhere or move to escalators. However, as recently recognized in the framework developed by Findlay, McCollum, Coulter, and Gayle (2015), there is a need to adopt ‘the fluidity of modern day mobility trajectories’. This framework draws on life-course theory (Elder, 1994) to distinguish six types of migration: temporary, lasting, oscillating, complex, lagged and anticipated. This typology recognizes that decisions to move are constantly negotiated by individuals, and the consequences of these decisions are not necessarily immediate, everlasting or equivalent for all.

This study develops a conceptual framework, which is analogous to OED and can be viewed as an OMD triangle, as shown in Figure 1. In this framework, the origin is conceptualized in terms of parental social class, which the individual has no influence upon at birth. It views the destination in terms of the direction of intra-generation social mobility, experienced by the individual within their adult, working life. Migration trajectories, experienced during the same period of time, acts as a potential mediator. The magnitude of the direct influence of origin on destination, as well as the extent to which different types of migration paths act as facilitators, are explored.

DATA AND METHODOLOGY

This research uses secondary longitudinal data obtained from the 1970 British Cohort Study (for details see Brown, 2014). This study follows a birth cohort of individuals born in a single week in the UK. So far, the information has been collected in nine sweeps, the last of which was conducted when the cohort members were 42 years of age. These data provide a comprehensive longitudinal picture of the occupational and migration biographies, sufficient to investigate the relationships between the social and spatial path in adult life.

The selection of the subsample of graduates is based on participants’ highest academic qualification in the most recent sweep, and includes only those with a degree or a higher degree.

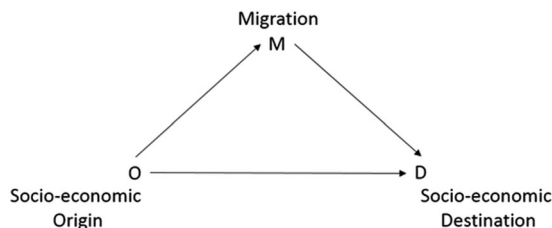


Figure 1. Origin–migration destination framework.

Cases with incomplete economic activity histories and missing county data were excluded, limiting the analytical sample to 1195 cases.

The parental socioeconomic group (SEG) from the sweep at 10 years of age, translated into National Statistic-Socio-economic Classification (NS-SEC) (for details see Rose, Pevalin, & O'Reilly, 2005), is used as a measure of the social class of origin. The NS-SEC categories reflect higher managerial and professional occupations (NS-SEC 1), lower managerial and professional occupations (NS-SEC 2), intermediate occupations (NS-SEC 3–4), and routine and semi-routine occupations (NS-SEC 5–7). The dominant social class between the mother and the father is used. Gender from the most recent sweep is added as a control.

Both migration and intra-generational social class trajectories are derived by the use of visual tools from sequence analysis. This method uses the holistic trajectories, rather than time-specific data points, as inputs. As these concepts are inherently longitudinal, this method is best suited to capture the process underlying such data. This is performed by the use of the TraMineR package in R (for details see Gabadinho, Ritschard, Mueller, & Studer, 2011).

The county in which participants in the study resided at a given sweep, between the ages of 16 and 42, is used to derive the migration trajectories. First, based on the ERT studies mentioned above, the counties are classified into three regional categories, as shown in Figure 2: (1) first-order escalator (Greater London); (2) second-order escalators (Bristol, City of Edinburgh, City of Glasgow, Greater Manchester, Leicestershire, Merseyside, Nottinghamshire, South Glamorgan, South Yorkshire, Tyne & Wear, West Midlands, West Yorkshire);

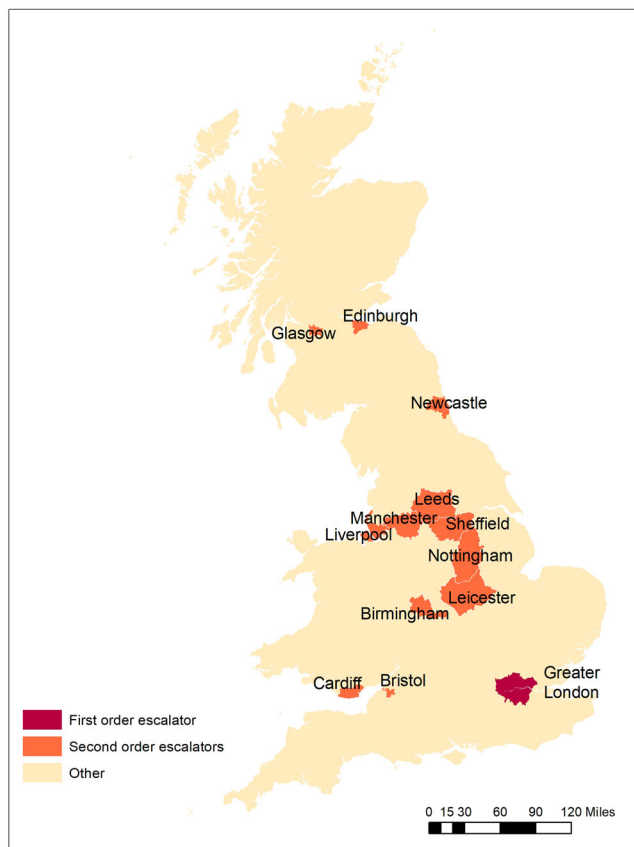


Figure 2. First- and second-order escalator regions in the UK.



Figure 3. Index plots of the types of migration performed by the 1970 British Cohort Study graduates.

and (3) other (remaining UK counties). Second, the migration trajectory of each member of the subsample was reconstructed and allocated to four types, as shown in Figure 3. This migration typology is developed based on the extent to which a given person acts in accordance with the ERT.

A similar approach was used to derive a typology of these graduates' social mobility via NS-SEC social classes over the same period. For this, economic activity histories were used, considering only the NS-SEC related to the occupation performed at the given time. Here, five types of social mobility are distinguished, based on their direction and linearity of these paths.

In the final stage, two sets of logistic regressions models were used. The first set evaluates the effect of socioeconomic origin on the destination. The second set evaluates the power of migration to facilitate graduates' social mobility, accounting for their origin. Equation (1) denotes the first set of regressions, investigating the relationship between the origin and the destination. Here Y_k denotes the dichotomized variables, reflecting each social mobility type against all other social mobility types; while X_1 and X_2 correspond to parental social class and gender respectively. The second set of regressions is denoted in equation (2), where X_3 reflects the categorical migration typology:

$$\text{Log} \left[\frac{\pi(Y_k = 1)}{1 - \pi(Y_k = 1)} \right] = \alpha + \beta_1 X_1 + \beta_2 X_2 \quad k = (1, \dots, 5) \quad (1)$$

$$\text{Log} \left[\frac{\pi(Y_k = 1)}{1 - \pi(Y_k = 1)} \right] = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \quad k = (1, \dots, 5) \quad (2)$$

RESULTS

The descriptive patterns of graduates' migration and their social mobility are shown in Figures 3 and 4 respectively. In these index plots, each horizontal line represents a graduate's migration (Figure 3) and their intra-generational social class mobility (Figure 4). The y-axis shows the

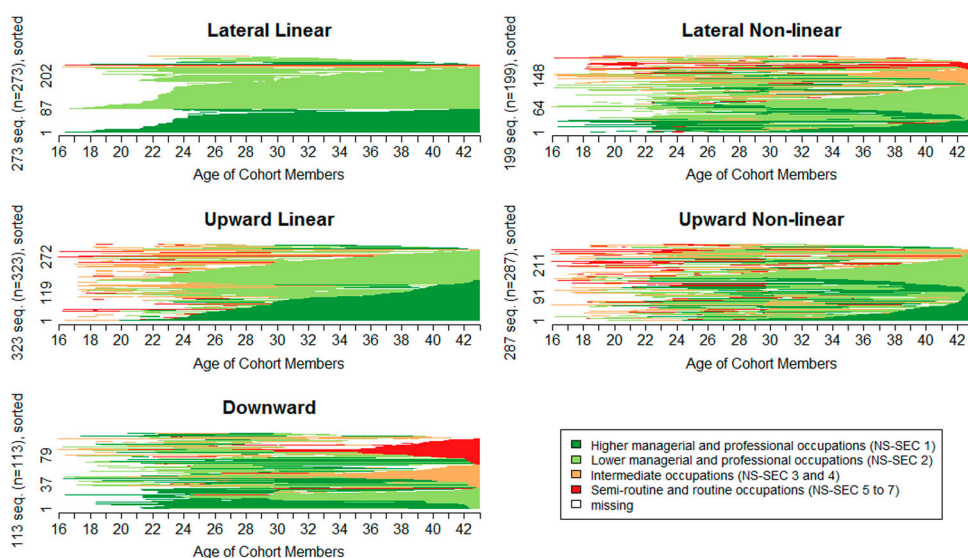


Figure 4. Index plots of the types of social mobility experienced by the 1970 British Cohort Study graduates.

total number of observations in each cluster. The x -axis represents graduates' age. The colours correspond to the respective states, as indicated in the legend.

Figure 3, the migration typology, distinguishes between: (1) stayers in and lasting movers to escalators (27%), who are expected to experience escalated social mobility; (2) stayers elsewhere (43%); (3) temporary movers to escalators (11%), who are attracted by the escalator regions during their early life, but move out by the time they are age 42; and (4) complex movers (19%), who do not act as expected under ERT.

Figure 4, the social mobility typology, is designed to measure the direction and the degree of precariousness inherent in these types of pathways. It distinguishes between: (1) lateral linear (23%), which includes those who remain in the same social class throughout the whole period analyzed; (2) lateral non-linear (17%), which includes those whose social class of their first and most recently recorded occupation is the same, but who experienced spells of occupation related to different social classes during their careers; (3) upward linear (27%), which includes those whose every subsequent occupation was related to higher social class than their previous occupation; (4) upward non-linear (24%), which includes those whose most recent occupation is related to higher social class than their first occupation, but whose progression was not always upward; and (5) downward (9%) trajectories, which includes those whose most recent occupation is related to lower social class than their first occupation.

The results from models denoted by equations (1) and (2) are shown in Table 1. These inferential results show that the effect of the social origin on destination is relatively strong, which implies that, even amongst the most educated, social gradient remains apparent. Accounting for migration patterns reduces the impact of the origin on destination only marginally, which indicates that neither higher education nor migration fully compensate for the disadvantage experienced due to the social background of origin.

DISCUSSION

As can be seen in Figure 3, over 57% of graduates considered in this study resided in an escalator region at some point of their lives. What is more, 30% of graduates do not act as expected under

Table 1. Results obtained from the logistic regressions in equations (1) and (2).

	Dependent variable									
	Lateral linear		Lateral non-linear		Upward linear		Upward non-linear		Downward	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Parental Social Class</i> (reference: NS-SEC 5–7)										
NS-SEC 1	0.381*	0.359*	0.473*	0.471*	-0.415**	-0.369*	-0.207	-0.224	0.042	0.024
	(0.211)	(0.213)	(0.283)	(0.284)	(0.195)	(0.196)	(0.203)	(0.204)	(0.285)	(0.287)
NS-SEC 2	0.219	0.206	0.851***	0.848***	-0.292	-0.253	-0.309	-0.322	-0.280	-0.311
	(0.210)	(0.212)	(0.270)	(0.271)	(0.189)	(0.191)	(0.202)	(0.203)	(0.295)	(0.297)
NS-SEC 3–4	-0.196	-0.203	0.938***	0.937***	-0.313	-0.292	-0.010	-0.019	-0.232	-0.250
	(0.233)	(0.234)	(0.277)	(0.278)	(0.201)	(0.202)	(0.207)	(0.207)	(0.311)	(0.311)
<i>Gender</i> (reference: Female)										
Male	-0.157	-0.156	-0.300*	-0.298*	0.239*	0.236*	0.099	0.096	0.026	0.034
	(0.142)	(0.142)	(0.162)	(0.162)	(0.132)	(0.132)	(0.137)	(0.138)	(0.201)	(0.201)
<i>Migration type</i> (reference: Stayers Elsewhere)										
Complex Movers		-0.336*		-0.059		0.015		0.351*		-0.079
		(0.203)		(0.215)		(0.177)		(0.181)		(0.268)
Stayers in and Lasting Movers to Escalators		-0.005		-0.043		0.059		0.119		-0.323
		(0.171)		(0.195)		(0.158)		(0.168)		(0.255)
Temporary Movers		0.487**		0.040		-0.721***		0.052		0.066
		(0.216)		(0.261)		(0.264)		(0.238)		(0.321)
Constant	-1.295***	-1.282***	-2.144***	-2.124***	-0.820***	-0.802***	-1.042***	-1.140***	-2.150***	-2.047***
	(0.178)	(0.194)	(0.241)	(0.255)	(0.156)	(0.172)	(0.165)	(0.183)	(0.237)	(0.258)
Observations	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195
Log-likelihood	-636.814	-631.626	-528.410	-528.328	-693.573	-688.593	-656.669	-654.773	-372.920	-371.929
Akaike information criterion (AIC)	1283.627	1279.251	1066.820	1072.656	1397.146	1393.187	1323.338	1325.547	755.841	759.858

Notes: Coefficients represent log odds; standard errors are shown in brackets.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

the ERT, as they either move out of escalators earlier than expected or have complex migration trajectories. Figure 4 shows that social mobility trajectories of graduates are more complex than simply moving up or down. They are most commonly upward, which indicates that possessing a higher education degree does not protect them from having to 'climb' the occupational 'ladder'. However, it is not the upward, but the lateral linear trajectories, that reflect the most advantageous patterns. The vast majority of graduates on these trajectories enter the labour market via jobs related to high social classes, already in their early 20s. They then, mostly uninterruptedly, remain in occupations related to the highest social classes throughout their whole working lives. These graduates, in contrast to the upward climbers, rarely experience work in routine or semi-routine occupations during their early lives.

The 'glass floor' effect, shown in previous studies (Friedman & Macmillan, 2017; Milburn et al., 2015), indicates that those originating from higher social class backgrounds are protected from downward mobility. As shown in Table 1, these findings partially confirm the existence of the 'glass floor' effect. Although no significant differences by social background are detected for the downwardly mobile graduates, these trajectories are rare amongst the most educated. Those originating from the most privileged backgrounds are most likely to experience the most advantageous, lateral linear trajectories, in which they are protected from performing occupations related to intermediate, routine or semi-routine social class. At the same time, those from the middle of social background spectrum, originating from NS-SEC 2–4, are more likely to experience a degree of non-linearity in the lateral trajectories, which is most commonly related to short spells of underemployment. In contrast, those from the lowest social class backgrounds are more likely to enter the labour market earlier, via lower class occupations, and gradually move to better jobs in later life. This indicates that upward intra-generational social mobility is, to an extent, reserved for the least privileged.

Based on the ERT, stayers in and lasting movers to escalators are expected to be more likely to experience upward mobility than stayers elsewhere. However, as shown in Table 1, the ERT is not confirmed in the sample of UK graduates extracted from the 1970 British Cohort Study, as no significant differences are found between social mobility trajectories of those who reside in escalators and those who reside elsewhere. This might indicate that higher education can ascertain equal social mobility chances in escalators and elsewhere.

In contrast, the relationship between the temporary migration and social mobility trajectories is statistically significant. The results indicate that temporary migration has a 'travellator', rather than 'escalator', effect on the social mobility trajectories most commonly experienced by those from higher social class backgrounds, safeguarding their position above the 'glass floor'. At the same time, temporary migration makes the upward linear progression, most common amongst those from the lowest social backgrounds, less likely, creating a 'glass ceiling' for the less privileged.

CONCLUSIONS

These findings contribute to the debate posited in the introduction, showing that the patterns of graduates' migration across their life-course significantly impact on their intra-generational social mobility. It also highlights that the relationships between these two longitudinal concepts are more complex than assumed by the ERT. The application of the OMD framework reveals that migration, especially temporary, may play a different role in the trajectories of graduates originating from different social class backgrounds. While the experience of residence in escalator regions appears to facilitate stability in the professional and managerial careers of the most privileged, for those from less privileged backgrounds it appears to be related to underemployment. This puts in question the extent to which migration to escalator regions can remove the barriers to social mobility for the UK graduates.

This investigation is based on one birth cohort only, and a relatively small sample of the graduates, whose location is denoted only at the time of the sweep. Furthermore, it could benefit from incorporating into the analysis additional characteristics of both the individual graduates as well as the regions in which they reside. Nevertheless, recognizing the dynamic nature of migration in an empirical investigation provides new insights into the relationship between migration and social mobility.

The implications of this research are twofold. At an academic level, it shows that cross-sectional measures are unlikely to capture the dynamics of life-courses. Thus, future research should incorporate longitudinal data and adequate methodologies to the investigation of socio-spatial mobility, especially distinguishing between lasting and temporary migration. At the policy level, it shows that interregional migration is common amongst graduates. Therefore, isolating the impact graduate migration has on a local economy would provide more reliable SMI estimates. Additionally, policies encouraging 'brain drain' prevention could be considered.

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