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Social origins, geographical mobility and occupational attainment in contemporary Italy

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Abstract

This paper studies the effect in the Italian case of geographical mobility on employment and occupational attainment, defined as access to the upper class, avoidance of the working class, and avoidance of agricultural jobs. It observes the distribution of its effect over the life course. Given that migration is a gendered phenomenon, we perform separate analyses by gender. Our data set, moreover, includes residential information at the municipality level, making it possible to specify geographical mobility in different ways, according to the distance, the characteristics of origin, and destination and the frequency of individual movements. Third, it studies whether the effects of geographical mobility change according to social class of origin and geographical area of origin.

Our analyses, based on linear probability panel models with fixed effects, show a strong gender divide concerning the probability of employment and avoidance of the working class. A positive effect of geographical mobility on occupational outcomes appears to exist only as regards men, because for women the divergence between movers and stayers appears well before geographical mobility. Finally, the effects of geographical mobility are generally stronger for individuals originating from the middle and lower classes and from rural areas, but they are not so strong as to enable those individuals to substantially change their position in the occupational hierarchy.

Keywords: Geographical mobility, Inequality/Social Stratification, Italy, Life course

Introduction

Current research in social demography (e.g., Kulu et al., 2018; Mulder, 2018) is arousing new interest in the relation among ascribed variables, such as gender and family background, geographical mobility (henceforth GM), and occupational attainment. Indeed, in the past, sociologists saw GM as a choice enabling individuals to be socially mobile by changing the occupational structure in which they were embedded (Sorokin, 1927), a key step in the processes of twentieth-century industrialization and urbanism (Blau & Duncan, 1967; Lipset & Bendix, 1959). Unfortunately, however, in subsequent decades, the connection between studies on GM, both internal and international, and

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stratification research gradually weakened, making it hard to evaluate the role of GM in the intergenerational reproduction of social inequality (Li & Heath, 2016).

This paper uses a novel and unique dataset for Italy comprising geographical information at the municipality level to study GM as a factor of social stratification.[1] In this regard, Italy has several interesting features, because its delayed industrialization led to the concentration of urbanization processes in a relatively short time span, between the end of WW2 and the 1980s. The rapidity of the process and its belatedness with respect to other countries imply that, differently from elsewhere, in the Italian case micro-data are available for in-depth study of the socio-economic circumstances of urbanization and geographical mobility. While selection into GM in Italy has been studied elsewhere (Ballarino & Panichella, 2017; Impicciatore & Panichella, 2019; Panichella, 2012), this paper focuses on the impact of GM on occupational attainment. We estimate a set of fixed-effect models for four measures of occupational attainment—namely employment, entry in the upper class, avoidance of the working class, and avoidance of an agricultural occupation—in three empirical steps. First, we study the effect of different types of GM on occupational attainment by gender. Second, we observe the distribution of the effect over the life course, considering both the short and long-run impact of GM on attainment. Third, we examine heterogeneity by observing the extent to which the impact of GM changes according to social class and geographical area of origin.

In the next section, we present our analytical framework, which links GM, social and geographical origin and occupational attainment, and defines a set of possible scenarios concerning our association of interest. The "Stratified returns: geographical mobility and ascribed factors" section focuses on the heterogeneity of the association between GM and attainment, investigating whether it changes among different social origins. The "Data, variables and methods" section presents our data, variables, and estimation strategy. The "Empirical evidence" section sets out the empirical evidence, and the "Conclusion" section concludes.

Geographical mobility, social stratification, and occupational attainment

Research in social stratification and mobility has analyzed the intergenerational reproduction of social inequality with the so-called origin-education-destination (${}_{O}{}^{E}{}_{D}$) triangle (Blau & Duncan, 1967), which links three elements: social origin (O), education (E), and social class of destination (D). According to the ${}_{O}{}^{E}{}_{D}$ triangle, the main source of inequality in contemporary society is family of origin: that is, parental resources in terms of occupation (social class), income, ethnicity, family arrangements, etc. In order to study GM as a factor of social stratification, we integrate the ${}_{O}{}^{E}{}_{D}$ triangle with the geographical dimension of social stratification by including two additional elements, which have received less attention in the social stratification literature, namely geographical area of origin (henceforth GO), and GM itself (Panichella, 2014).

Geographical area of origin affects educational achievement because the uneven geographical distribution of schools and universities influences the costs of schooling, and also because of the impact on schooling of peers, who might be seen as a part of the

[1]Our data were last updated in 2005 (see details below). However, at present for Italy there is no other, more recent, source providing a similar level of detail.

geographical context (Bobonis & Finan, 2009). Moreover, since the division of labor among geographical areas shapes the occupational structure and thus the set of opportunities available to individual careers (Blau & Duncan, 1967; Moretti, 2012; Simpson, 1992; Van Ham, 2003), the place of birth also affects occupational attainment. Finally, the effect of GO on class attainment may be also driven by a *spatial sorting*: better-off families are more inclined to live in specific geographical areas providing advantage, for instance urban areas and big cities.

However, individuals are not 'trapped' in their geographical area of origin: they can move from there to some other place providing better opportunities. Hence, a second element to be integrated in the ${}_{O}{}^{E}{}_{D}$ triangle is geographical mobility, the move from GO to a new place of residence. GM can be considered an achieved factor and, like education, may be analyzed in terms of 'investment' in future occupational attainment (Sjastaad, 1962). Although GM often disrupts social networks, on average it provides positive outcomes in terms of occupational attainment (Bernard, Bell, & Charles-Edwards, 2014; Blau & Duncan, 1967; Mulder & Van Ham, 2005; Nowok, Van Ham, Findlay, & Gayle, 2013). People benefit from migration because it widens their job search area so that they can escape the limitations of the occupational structure of their place of origin in order to take advantage of job opportunities available elsewhere. This is particularly true of rural to urban migration (Lehmer & Ludsteck, 2011), and especially moves to large cities, where better employment opportunities are available and returns on investment in human capital are greater (Fielding, 1992).

While a positive average effect of GM on occupation attainment has been largely confirmed by the literature, the temporal shape and the causal nature of the association remains unclear. Do returns to migration occur immediately, or after some time lag? The lack of research on the issue is related to the scant availability of longitudinal data including detailed information concerning changes of residence, as required by a diachronic analysis of the association between mobility and occupational attainment.

In order properly to analyze the timing and the nature of the association between GM and occupational attainment, we hypothesize four scenarios relating GM and occupational attainment over the life course. They are depicted in Fig. 1, where time is on the x-axis and attainment on the y-axis. Two groups are compared: the 'movers' (dotted line), i.e., those who experience at least one episode of GM, and the 'stayers' (solid line), i.e., those who remain in the geographical area of origin. The vertical dotted line represents the time when the movers experienced their first episode of geographical mobility.

According to the *immediate returns* scenario (top left panel), the effect of GM occurs immediately after the movement, creating a net discontinuity in occupational attainment before and after GM. This may be due to the effect of moving from a rural to an urban area on the possibility of entering employment: as an individual moves from an area providing few employment opportunities to one offering many, the effect may occur immediately after the migration. However, it is also possible that the positive returns are postponed to a later stage of the life course, well after the movement. In this scenario (*postponed returns*, top right), GM is a part of a larger project of investment in human capital which brings employment benefits only in the medium or long term, as in the case—for instance—of student mobility to college (Panichella, 2009, 2013). In both cases, there is a possibly causal positive effect of GM on occupational

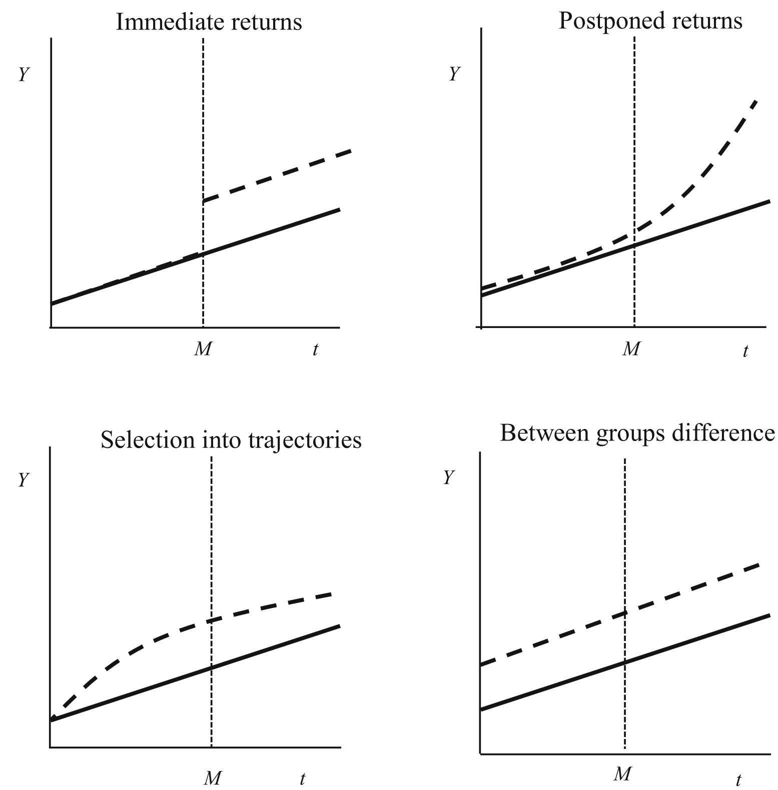


Fig. 1 The association between geographical mobility and occupational attainment, over time: four possible scenarios

attainment, although the explanatory mechanisms are different, given the time lag of the effect found in the second case (Yankow, 2003).[2]

In the *selection into trajectories* scenario (bottom left), an advantage of migrants with respect to stayers already exists before the migration event, and it grows over time (Kratz & Bruderl, 2012). In other words, in this scenario, individuals first experience an occupational improvement in their area of origin, then decide to move. Thus, the choice of GM is mostly intended to reinforce a life-course pattern already given: if an individual has experienced an early occupational upgrading in a region where resources are limited, s/he can then decide to move to other regions to continue the favorable trend, avoiding its obstruction by the lack of local opportunities. Finally, according to the *selection into different groups* scenario, the attainment gap is stable over the life course. Not observing this pattern over time may lead to GM being ascribed to what in fact derives from individual characteristics, for instance motivation, self-efficacy, or some other factor, be it observable or not (Cooke & Bailey, 1996; Smits, 2001). In both scenarios, therefore, a causal relation between GM and occupational attainment is to be excluded.

[2]While the evidence the paper provides is compatible with a causal interpretation of the relation, more detailed data would be needed to make this interpretation as robust as required by the counter-factual paradigm.

Stratified returns: geographical mobility and ascribed factors

Besides the issue of the timing of the effect of GM, another aspect often neglected by the current sociological literature concerns its heterogeneity with respect to individual ascribed factors. We focus our discussion on gender, social class of origin, and geographical area of origin, briefly reviewing how the effect of GM may change among such factors.

First, research has widely shown that GM is a gendered phenomenon because it interrelates with family behaviors which often exhibit substantial gender differences (Cooke, 2008; Kulu & Milewski, 2007). Studies consistently relate the gender cleavage in migration behavior to the prevailing division of labor within the household, according to which the male partner is expected to be the main income provider while women are mostly devoted to childcare. The 'tied migration' argument maintains that, while for men GM is mostly an occupational investment, women often relocate in response to their partners' movement, and this type of movement may have a negative effect on their occupational attainment (Ballarino & Panichella, 2018; Taylor, 2007). Indeed, it has been found that men who migrate show on average better occupational outcomes with respect to those who do not, but this is not always the case for women (Bonney & Love, 1991; Jacobsen & Levin, 1997; Smits, 2001). This may also result from a self-selection process of female movers, which is difficult to analyze with cross-sectional data (Nowok et al., 2013). Therefore, study of the possible gender differences in the distribution of the effect of GM on occupational attainment over the life course is crucial for shedding light on the mechanisms underlying it.

Second, as regards the interaction between GM and social origin, our key question is whether the effect of GM on attainment is stronger for individuals with lower origins or for those with higher ones. We then extend to GM a question that has received close attention in the recent social stratification literature: how do different factors of advantage/disadvantage interact with one other over the life course? The discussion has mostly focused on family of origin and educational achievement. If the interaction between origin and education is negative, so that family of origin has a stronger impact on attainment for individuals who are less educated, the term *compensation effect* is typically used (Ballarino, Cantalini, & Panichella, 2019; Bernardi, 2014). Conversely, if the interaction is positive, so that the occupational advantage given by a favorable family background is stronger for the better educated, advantages cumulate into what has been called the *boosting effect* (Bernardi & Ballarino, 2016; DiPrete & Eirich, 2006; Erola & Kilpi-Jakonen, 2017).

As regards GM, we then ask whether occupational returns to GM are stratified according to family background: are they stronger for individuals with a disadvantaged background, so that GM may to some extent compensate for the disadvantage related to family resources, or are they stronger for those with a privileged family background, so that the advantage provided by GM cumulates with the family-related one?

Third, a similar argument may be proposed concerning geographical origin. Also in this case, there may be a 'compensation scenario,' where GM on average benefits more individuals from more deprived geographical origins, i.e., places that offer few occupational opportunities, or, on the contrary, a 'boosting scenario,' where the benefits of GM are on average stronger for individuals from wealthy geographical areas offering many good occupational opportunities. If a compensation pattern prevails, then individuals with lower origins would benefit more from GM, with a balancing effect on social inequality. This, however, does not tell us whether GM actually enables individuals to change their position in the social structure. Therefore, if a compensation scenario fits the evidence better, the question becomes whether the impact of GM is strong enough to alter the individual's position in the hierarchy among social groups defined by circumstances of birth: does GM enable individuals of low social origin or living in poor geographical areas to change their position on the social ladder? On the contrary, if the boosting effect prevails, because GM provides an additional boost to those individuals with a better social origin and/or living in better geographical areas, then GM increases the distances between groups, reinforcing the existing social hierarchy according to a pattern of cumulative advantage (DiPrete & Eirich, 2006).

Data, variables and methods

Data

Data from the Italian Longitudinal Household Survey (ILHS) (1997–2005) for our analyses. This panel survey comprises, besides the standard socio-demographic information, detailed time-varying information on GM (collected at the municipality level) as well as on the educational, occupational, and familial careers of a random sample of the Italian population. For this paper, the information concerning the municipality was matched with administrative data concerning its geographical and demographical features.[3] Hence, by considering the number of inhabitants and the altitude of the municipality of residence, we were able to distinguish different types of geographical origin and movement. Our analytical sample comprised all individuals born between 1925 and 1975. The window of observation was 15–55 years of age or from 15 to the age at interview if the case was right-censored: hence, we observed our sample from 1940 to 2005.[4] After listwise deletion of missing values, analyses were based on the quarterly individual history calendars of 7528 individuals (945,092 observations).

Variables

The independent variable was GM, distinguishing the *movers* from the *stayers*. This variable was treated as time-varying. At the time of the first observation, when the individual was 15 years old, s/he was considered to be a *stayer*. When s/he moved residence to another municipality, s/he became a *mover*, i.e., *someone who changes municipality of residence at least once after 15 years of age*. Our definition, based on the respondent's reconstruction of his/her own residential career and his/her own definition of 'place of residence,' could also include movements not documented in the administrative records, while it excluded episodes of temporary absence, even prolonged, from the municipality of residence (military service, holidays, etc.), as well as residential moves within the same municipality. In our empirical analyses concerning the effect of GM on attainment in general, we exploited the municipal-level information available in

[3]Source: Italian National Institute of Statistics (ISTAT), https://www.istat.it/it/archivio/156224.
[4]It should be borne in mind that ILHS started in 1997 as a retrospective panel survey, and was then kept updated by 4 further waves taking place every other year until 2005. Since most of the information used in our analyses was collected retrospectively, it is reasonable to assume that panel attrition did not bias our results.

our data to define different types of GM, in order to give a more detailed description of the phenomenon and to gain better understanding of the mechanisms involved.

As regards our dependent variables, we focused our analysis on four outcomes furnishing a detailed and parsimonious picture of occupational attainment. The first outcome was employment status, coded 1 for the employed and 0 for both unemployed and inactive. We then specified three different outcomes concerning occupational class attainment. The first was the probability of entering the upper class (1 = upper class; 0 = other class or unemployed/inactive), i.e., the service or higher-grade routine non-manual employees class, as defined by the EGP class scheme (EGP I-II-IIIa, Erikson & Goldthorpe, 1992). The second was the probability of avoiding the urban working class (1 = working class; 0 = other class or unemployed/inactive), defined as skilled and unskilled manual workers in the industrial sector (EGP V-VI-VIIa), while the third was the probability of avoiding agricultural jobs (1 = agricultural; 0 = other class or unemployed/inactive; EGP IVc-VIIb). As a robustness check, we also estimated class attainment excluding unemployed and inactive individuals from the analysis (conditional models), and the results did not change.

Since we were estimating a set of panel models with fixed effects (see below), we controlled for a number of time-varying variables, including a dummy for the area of origin and destination (see below for details); enrollment in the educational system (1 = yes; 0 = no); marital status (0 = single; 1 =married); parenthood (0 = no; 1 = yes); years (1945–2005) and age dummies (from 15 up to 55); and highest educational level achieved (primary or less, lower secondary, upper secondary, and tertiary or more).

In order to address whether internal mobility changes an individual's position in the occupational hierarchy, the effect of GM was estimated by social class and geographical area of origin. Social origin was defined using the EGP class scheme via the dominance approach (Erikson, 1984), including four categories: upper class (I-II-IIIab); urban petty bourgeoisie (IVab); urban working class (V-VI-VIIa); and agricultural classes (IVc-VIIb). The geographical area of origin was the type of municipality of residence at the age of 15, coded into 5 categories: two urban ones, namely big cities (more than 300, 000 inhabitants) and medium cities (between 50,000 and 300,000 inhabitants); three rural ones (< 50,000 inhabitants), divided on the basis of their height above sea level: plains and coasts (as identified by the Italian National Institute of Statistics); hills (altitude < 450 m); mountains (altitude > 450 m). These geographical areas are associated with different sets of opportunities and constraints affecting individuals' life chances. A number of studies have shown that educational and employment opportunities have been systematically better in urban areas because the industrialization and upgrading of the occupational structure of these areas furnished better chances of attainment for the people who lived there. Furthermore, among rural areas, it is useful to differentiate hills and mountains from plains and coastal areas, since the latter offer better opportunities and thus attract people to them (Panichella, 2014).

Descriptive statistics

Table 1 provides descriptive statistics of the geographical mobility observed in our analytical sample. The units of analysis are both episodes and individuals. At least one episode of GM was experienced by 36.8% of our sample, since the ILHS survey registered

Table 1 Descriptive statistics by gender

	Individuals					
	Male		Female		Total	
	%	(*N*)	%	(*N*)	%	(*N*)
Stayers (never moved)	65.9	(2367)	60.6	(2388)	63.2	(4755)
Mobile (at least one episode of GM)	34.1	(1223)	39.4	(1550)	36.8	(2773)
Type of episodes (administrative boundaries)						
Between municipalities (of the same regions)	58.8	(1375)	66.6	(1611)	62.8	(2986)
Between regions (of the same macro-regions)	10.7	(251)	7.3	(177)	9.0	(428)
Between macro regions	30.5	(713)	26.1	(631)	28.2	(1344)
Type of episodes (rural-urban)						
	Male		Female		Total	
Episodes from rural to urban	23.0	(539)	22.4	(541)	22.7	(1080)
Episodes from rural to rural	36.0	(842)	43.6	(1054)	39.8	(1896)
Episodes from urban to urban	18.6	(436)	14.5	(350)	16.5	(786)
Episodes from urban to rural	22.3	(522)	19.6	(474)	20.9	(996)
Total	100.0	(2339)	100.0	(2419)	100.0	(4758)
Type of episodes (distance, number of episodes, age at first episode)						
	Male		Female		Total	
	Mean	se	Mean	se	Mean	se
Average distance of GM (in km)	223.9	6.11	166.0	5.41	194.5	4.09
Average number of GM episodes	1.9	2.41	1.5	0.02	1.71	0.02
Average age at first episode	25.2	2.41	24.02	1.83	24.5	1.48

4753 changes of municipality of residence (2339 for males and 2419 for females), mostly taking place within the same region (62.8%).[5] Mobility from rural areas was the most widespread form of geographical mobility, among both males and females, whereas the average distance of GM was 194 km and the average age at first GM episode was 24.5.

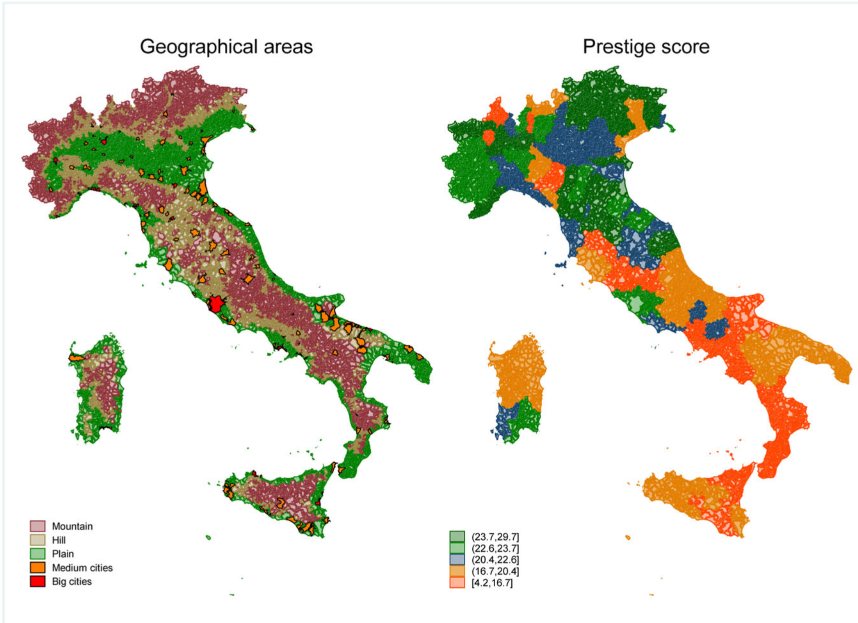
Figure 2 reports maps of Italy showing the distribution of urban and rural areas (left map) and the geographical distribution of the average occupational prestige (right map).[6] Apparent is a double geographical heterogeneity of occupational prestige. On the one hand, there is a clear cleavage between the South and the Center-North related to the historical imbalances of development, while on the other hand within the macro-regions, the urban and plain areas show a higher average occupational prestige.

Models

We estimated a set of linear probability fixed-effects panel models with panel-robust SEs (Allison, 2009; Baltagi, 2008; Wooldridge, 2013). Our empirical strategy moved through three steps. The first quantified the effect of GM on occupational attainment, controlling for the set of time-varying variables described above. The basic model was:

[5] Only 12.8% of these episodes (16.5% for males; 8.5% for females) occurred in the same quarter of an episode of job change, thus limiting the possible bias due to reverse causality.

[6] The average occupational prestige was estimated at the provincial level and was controlled by gender, social class of origin, and education.



Note: The average occupational prestige has been estimated at the provincial level, controlling for gender, social class of origin and education. Those who have never been employed are excluded from the analysis.

Fig. 2 Geographical distribution of the type of municipality (left) and of the average prestige score (right). The average occupational prestige has been estimated at the provincial level, controlling for gender, social class of origin and education. Those who have never been employed are excluded from the analysis

$$\left(Y_{it}-\overline{Y}_i\right)=\sum\nolimits_j\beta_j\left(X_{jit}-\overline{X}_{ji}\right)+\lambda\left(M_{it}-\overline{M}_i\right)+\sum\nolimits_{k=1}^{40}\theta_k\left(A_{it}-\overline{A}_i\right)+\left(\varepsilon_{it}-\overline{\varepsilon}_i\right)\qquad(1)$$

where Y_{it} is the occupational outcome, M_{it} is GM, X_{jit} is a vector of additional time-varying covariates, and the A_{it} term is age (dummies from 15 to 55 years of age). Finally, i, j and t index over individuals, observed correlates and time respectively. According to this equation, the changes observed in the outcome $\left(Y_{it}-\overline{Y}_i\right)$ only depend on changes in the observed covariates $\left(X_{jit}-\overline{X}_{ji}\right)$ and on GM $\left(M_{it}-\overline{M}\right)$. Hence, the model focuses on intra-individual changes over time, estimating the effect of GM on attainment *within* the individual's life course and considering only time-varying variables. The assumption of this model is that the unobserved covariates are time-constant.

In order to provide a more accurate and detailed view of the relation between GM and attainment, the model was estimated with different controls for the departure and destination areas (see below for details), as well as by using different definitions of geographical mobility based on the rural-urban cleavage, the distance between departure and destination areas, and the possible repetition of movements over the individual's life course.

The second part of our empirical strategy analyzed the timing of the effect of GM on attainment. For this purpose, we estimated a distributed fixed-effect model (Dougherty, 2006; see also Kratz & Bruderl, 2012; Yankow, 2003). The model made it possible to observe how the association between the two variables of interest was distributed over time, thereby gauging the causal nature of the relation. Empirically, we replaced the dummy M_{it} included in Eq. 1 with a set of dummy variables M_{it}^p, where p represented the distribution of the effects over time: $p = 0$ in the quarter when GM occurred; $p < 0$ before GM; $p > 0$ after GM.

The relevant equation was thus:

$$\left(Y_{it} - \overline{Y}_i\right) = \sum\nolimits_j \beta_j \left(X_{jit} - \overline{X}_{ji}\right) + \sum\nolimits_{p=-s}^{s} \lambda_p \left(M_{it}^p - \overline{M}_j\right) + \sum\nolimits_{k=1}^{30} \theta_k \left(A_{it} - \overline{A}_i\right) + \left(\varepsilon_{it} - \overline{\varepsilon}_i\right) \quad (2)$$

where the effect of GM is treated not as that of a discrete event, as in Eq. 1, but as a process involving the period before and after the movement, ranging from 5 years prior to it to 15 years afterwards (s). Besides the distribution over time of the effect of GM on movers, we also considered how the difference between movers and stayers evolves over the life course. Thus, we predicted, with Eq. 2, the trend of occupational attainment over age (A_{it}) (15–45 years of age) for the stayers and movers. This enabled better consideration of the substantial relevance of the estimated effects of GM, since in this way we were able to show how the GM event affected the occupational attainment of movers compared with the estimated 'counterfactual' trend of stayers. To identify the counterfactual trend, we hypothesized a scenario where the GM occurred at 27 years of age, and then considered the distribution (before and after the movement) of the effect of GM. We chose age 27 because it made it possible to observe the distribution of the effect (M_{it}^p) from the age of 22 onwards, given that the observation window specified by the model started 5 years before the moment the GM event takes place. However, results did not change if a different, substantively reasonable, cutpoint was chosen.

Third, we studied the heterogeneity of GM across ascribed variables. In the case of gender, we present all of the estimations introduced above separately by gender. In the case of social class of origin and geographical origin, Eq. 1 was similarly estimated separately for each social class of origin and for each geographic area of origin. Unfortunately, the lack of statistical power made it impossible to interact either the distribution over time of GM or its different forms with our ascribed variables of interest. Finally, in order to determine the causal order and avoid reverse causality biases, all the models presented in the next sections were also estimated with a lagged first-difference model (LFDM) which combined FE and temporal ordering (Allison, 2009) by including a lagged regressor in FE models. The estimates produced by this model, available on request from the authors, are identical to those presented in the next section.

Empirical evidence

Geographical mobility and occupational attainment

Tables 2 and 3 report the effects of GM on the four occupational outcomes considered, estimated separately by gender. In order to provide a detailed empirical picture of the effect of GM, a number of different model specifications have been used. In Table 2 (models 1–4), different controls for the geographical areas of departure and destination are used, providing a sort of stepwise 'decomposition' of the effect according to the areas involved, while Table 3 (models 5–14) focuses on intra-regional movements and uses different definitions of GM. M1 in Table 2 estimates a general effect without any control for the geographical area of departure and destination. This model's estimates are influenced by the composition effects related to the higher frequency of some combinations of departure and destination, in particular concerning long-distance

Table 2 Effects of geographical mobility on occupational achievement by sex. Linear probability panel models with FE. Beta coefficients and robust se. Different controls for origin/destination

	Employed		**Upper class**		**Avoid WC**		**Avoid AGR**	
	λ	**σ**	**λ**	**σ**	**λ**	**σ**	**λ**	**σ**
Male								
M1: Gross effect	0.06	(0.01)	0.02**	(0.01)	– 0.04***	(0.01)	0.02***	(0.01)
Controls								
M2: South-North	0.04***	(0.01)	0.02*	(0.01)	– 0.03**	(0.01)	0.02***	(0.01)
M3: Macro-regions	0.04***	(0.01)	0.02**	(0.01)	– 0.02	(0.01)	0.02***	(0.01)
M4: Regions	0.03**	(0.01)	0.01	(0.01)	– 0.02	(0.01)	0.02***	(0.01)
Female								
M1: Gross effect	– 0.03*	(0.01)	0.01*	(0.01)	0.02	(0.01)	0.01**	(0.01)
Controls								
M2: South-North	– 0.06***	(0.02)	0.01	(0.01)	0.05***	(0.01)	0.01**	(0.01)
M3: Macro-regions	– 0.05***	(0.02)	0.01**	(0.01)	0.05***	(0.01)	0.01	(0.01)
M4: Regions	– 0.06***	(0.02)	0.01	(0.01)	0.06***	(0.01)	0.01**	(0.01)

All models control for region of current residence; enrollment in the educational system; marital status; parenthood; years (1955–2005) and age dummies (from 15 up to 55); highest educational level achieved. In addition, models from M2 on include an interaction term for geographical area of departure by geographical area of destination, defined in M2 as $SNDep_{it} \times SNDest_{it}$, where SN is a dummy for south-north; in M3, as $MacroDep_{it} \times MacroDest_{it}$, where Macro is macro regions (North-West, North-East, Center, South); in all models from M4 to M14 as $RegDep_{it} \times RegDest_{it}$, where Reg is region
*** = $p<0.001$; ** = $p<0.05$; * = $p<0.1$

migration from the South to the North from the 1950s to the early 1970s (Panichella, 2014). Then, in order to control for different combinations between areas of departure and destination, we add to the models an interaction term for gradually stricter combinations of departure and destination areas. Thus, the effect of GM is controlled, step-wise, for the structural features of the geographical areas of origin and destinations. M2 controls for $SNDep_{it} \times SNDest_{it}$, where SN is a dummy for South vs. Center/North. In this specification, the effect of South-to-North GM (or vice versa) is captured by the interaction term. Therefore, the coefficient of the dummy GM reported in Table 1 is estimated considering only those GM episodes that do not imply a movement between the two macro areas (i.e., GM within the South and GM within the Center/North). As a matter of fact, Italy has experienced intense unidirectional internal migration from the South to the Central-Northern regions. The huge socio-economic cleavage between the Southern and the Northern Italian regions was at the basis of massive internal migration: indeed, between the 1950s and the first half of the 1970s, about 4 million Italians moved northwards, as if a city as big as Rome had been moved from the South to the North within two decades (Panichella, 2014). M3 controls for $MacroDep_{it} \times MacroDest_{it}$, where Macro stands for the 4 macro-regions into which Italy is typically divided (North-West, North-East, Center, South). This model therefore focuses on the effect of those GMs within these macro regions. Finally, M4 controls for a dummy at regional level, $RegDep_{it} \times RegDest_{it}$, thus estimating the effect of GM within regions.

Gender differences immediately appear from M1: while for males GM is associated with an increase of 6 percentage points (pp) in the probability of being employed, for women it decreases the same probability by 3 pp. This gendered result confirms our expectations, suggesting that the returns of GM on women's employability are affected by the interrelation between family dynamics and residential mobility, since women mostly move after their partner/husband (Impicciatore and Panichella, 2019). GM decreases

Table 3 Effects of specific types of geographical mobility on occupational achievement by sex. Linear probability panel models with FE. Beta coefficients and robust se

	Employed		Upper class		Avoid WC		Avoid AGR	
	λ	σ	λ	σ	λ	σ	λ	σ
Male								
Different types of movement								
M5: From rural to urban	0.04**	(0.02)	0.03*	(0.02)	− 0.01	(0.02)	0.03***	(0.01)
M6: Toward big cities	0.08***	(0.02)	0.02	(0.02)	− 0.04*	(0.02)	0.01	(0.01)
M7: From urban to rural	0.01	(0.01)	0.02	(0.01)	0.01	(0.02)	0.01	(0.01)
Different distances								
M8: GM > 50 km	0.07***	(0.02)	0.05***	(0.02)	− 0.03*	(0.02)	0.00	(0.01)
M9: GM > 150 km	0.04***	(0.01)	0.01	(0.01)	− 0.01	(0.01)	0.02***	(0.01)
M10: GM > 300 km	0.02**	(0.01)	0.01	(0.01)	− 0.00	(0.01)	0.02***	(0.01)
Order of episodes								
M11: First episode	0.04***	(0.01)	0.02**	(0.01)	− 0.01	(0.01)	0.02**	(0.01)
M12: Second episode	0.04**	(0.02)	0.02	(0.02)	− 0.03	(0.02)	0.02*	(0.01)
M13: Third or more	0.03*	(0.02)	0.02	(0.02)	− 0.03	(0.03)	0.04***	(0.01)
Female								
Different types of movement								
M5: From rural to urban	0.05**	(0.02)	0.04***	(0.01)	0.00	(0.02)	0.01	(0.01)
M6: Toward big cities	0.08***	(0.03)	0.07***	(0.02)	0.01	(0.02)	− 0.02***	(0.01)
M7: From urban to rural	− 0.01	(0.02)	0.01	(0.01)	0.03*	(0.02)	− 0.02**	(0.01)
Different distances								
M8: GM > 50 km	0.03	(0.02)	0.03**	(0.01)	− 0.02	(0.02)	− 0.00	(0.01)
M9: GM > 150 km	− 0.04***	(0.02)	0.01	(0.01)	0.04***	(0.01)	0.01	(0.01)
M10: GM > 300 km	− 0.04***	(0.02)	0.01	(0.01)	0.03***	(0.01)	0.00	(0.01)
Order of episodes								
M11: First episode	− 0.05***	(0.02)	0.01	(0.01)	0.05***	(0.01)	0.01	(0.01)
M12: Second episode	− 0.01	(0.02)	0.03**	(0.01)	0.03	(0.02)	0.02	(0.01)
M13: Third or more	− 0.03	(0.03)	0.03	(0.02)	0.02	(0.03)	0.02	(0.01)

All models control for region of current residence; enrollment in the educational system; marital status; parenthood; years (1955–2005) and age dummies (from 15 up to 55); highest educational level achieved. In addition, models from M2 on include an interaction term for geographical area of departure by geographical area of destination, defined in M2 as $SNDep_{it} \times SNDest_{it}$, where SN is a dummy for south-north; in M3, as $MacroDep_{it} \times MacroDest_{it}$, where Macro is macro regions (North-West, North-East, Center, South); in all models from M4 to M14 as $RegDep_{it} \times RegDest_{it}$, where Reg is region
*** = $p<0.001$; ** = $p<0.05$; * = $p<0.1$

the probability of avoiding the WC for men by 4 pp, whereas among women the effect is positive but not statistically significant. Conversely, for both genders, there is a positive effect of GM on the probability of entering the upper class and on the probability of avoiding agriculture, although in these cases the magnitude of the effects is quite low, given the massive change from agricultural to urban occupations.

While the qualitative structure of the effects of GM does not change across specifications, their magnitude changes from M1 to the following models, while the differences among M2, M3, and M4 are smaller. This is due to the fact that the interaction $SNDep_{it} \times SNDest_{it}$ erases the composition effects related to migration from the South to the Center-North. When models control for this interaction, coefficients for males concerning employment become substantially weaker, since South-to-North migration was mostly driven by recruitment on the part of big manufacturing plants (and, to a lesser extent, by the civil service). In the case of females, the negative coefficient for employment and the positive one for avoiding the working class become stronger, reflecting the fact that southern women taking part in the great migration to the North from the 1950s to the 1970s had more chances of finding a working-class job than their colleagues who did not move or who moved in other contexts (Panichella, 2014).

Models 5 to 13, reported in Table 3, focus on specific types of GM. All models follow the specification of M4, controlling for regional dummies, since mobility within regions is the most widespread form of GM (Table 1) and is more homogenous across the country. Movements from rural to urban areas (M5) and to big cities (M6) increase the probability of being employed, and of experiencing upward mobility, for both men and women. Urban-bound mobility makes a major difference with respect to GM in general for women (Table 2), because in their case, GM increases their chances of employment and of upward mobility, especially when they move to big cities. For men, by contrast, the effects of these types of movement are no different from the gross effects seen in Table 2. We take this as evidence that rural-to-urban GM is associated with different patterns of female selection into GM, while for men selection appears to be more homogeneous among different types of GM.

The following set of models (M8 to M10) focus on the distance of GM. As the definition of GM is gradually restricted to longer movements, the positive effect of GM on employment becomes weaker for men and more negative for women, and—similarly—the positive effect of GM on upward mobility declines for both genders. This may be related to the disruption costs entailed by GM, which are stronger the longer the distance from the area of departure to the one of arrival, as well as to the greater difficulties correspondingly experienced by individuals moving to very distant places, which are more different in the functioning of their labor markets. We likewise interpret the female pattern of the probability of avoiding the working class, which increases with geographical distance.

Finally, models M11 to M13 concern the order of GM: in M11, the definition of GM is restricted to each mover's first GM event, in M12 to the second one, in M13 to the third, and all the following ones. Interestingly, while for men the number of episodes makes little difference, in the case of women there are notable changes over specifications: whereas the estimates of M11 show increasing probabilities of unemployment and of avoiding the WC, according to M12 and M13 the effect of GM on unemployment becomes smaller and not significant, while the positive effect for entering the upper occupational strata grows (although it is not significant in M13). This pattern may be explained by a different selection into GM: as in the case of urban-bound mobility, it is likely that most of the women who move for family reasons move only once, to join their husbands, while repeated moves on the part of a woman may indicate that her GM is driven by her own occupational motivations.

Given that these different patterns between men and women, and among women as well, are likely to be related to family behavior, in order to shed further light on the interrelation between family formation and GM we interacted GM with marital status, as reported in Fig. 3.[7]

[7]ILHS data do not allow adequate control of the 'tied migration hypothesis,' because they do not include information on the relationships between the members of the couple before the marriage. The members of a couple often plan a two-step migration during their engagement whereby the man moves first and the marriage occurs later at the moment of family reunification, when migration costs have been lowered.

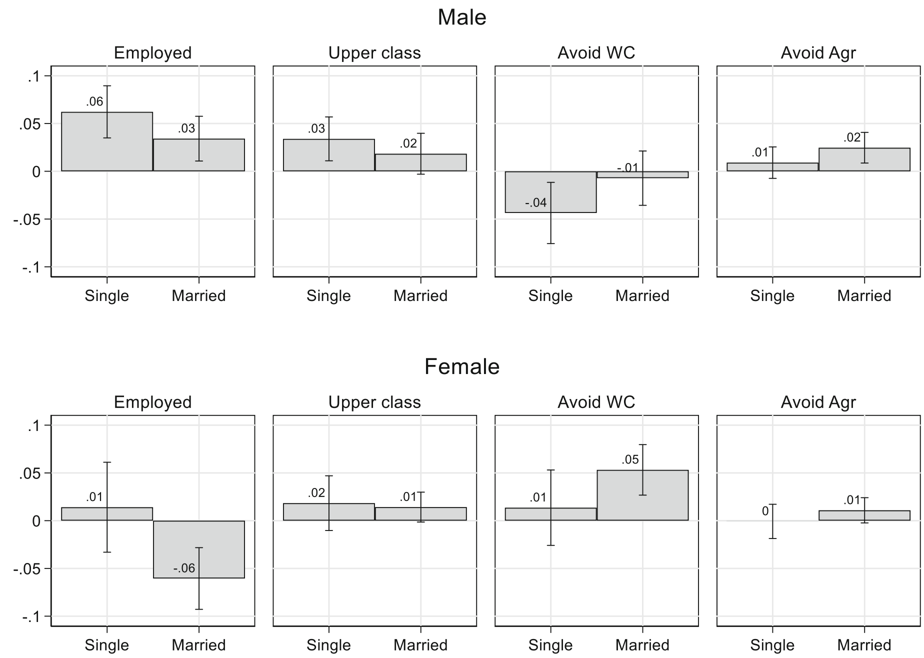


Fig. 3 Effects of geographical mobility on occupational outcomes by gender and marital status. Beta coefficients (upper panel) and predicted probabilities (lower panel). Distributed LPM with FE

Indeed, estimation of the interaction models shows differences between genders fully consistent with the results reported above. While for single and married men the coefficients for employment go in the same direction, albeit at different levels of magnitude, coefficients change dramatically when distinguishing married and unmarried women. The latter, in fact, are not disadvantaged by GM, whereas the former are strongly so. We speculate that while for men GM is mostly related to employment, for women both the motivation for GM and the employment opportunities which it provides change completely according to their familial situation (Author, 2019).

Geographical mobility and occupational trajectories

We now move to the second part of our analysis by observing how the relation between GM and attainment is distributed over the life course, and relating it to the scenarios presented in Fig. 1 above. Figures 4 and 5 report in the top panel the distribution of the effect of GM (M_{it}^{p}) on our four occupational outcomes, for males and females respectively, controlling for the interaction between region of origin and region of destination ($RegDep_{it} \times RegDest_{it}$). In order to give a clearer idea of the substantive relevance of the results, the bottom panel shows for each of our four outcomes the predicted probabilities over time of movers who migrated at the age of 27 (as calculated from the same DFE models), compared with the corresponding trends over age (A_{it}) (15–45 years of age) computed for the stayers and those movers who at each given age had not yet moved, with full controls.

The patterns over time of the relation between GM and employment are very different for men and women. For the former, the effect of GM on the probability of being employed increases from 0 (CIs: − 0.03, 0.03) to positive values (pr = 0.03, CIs: 0.01,

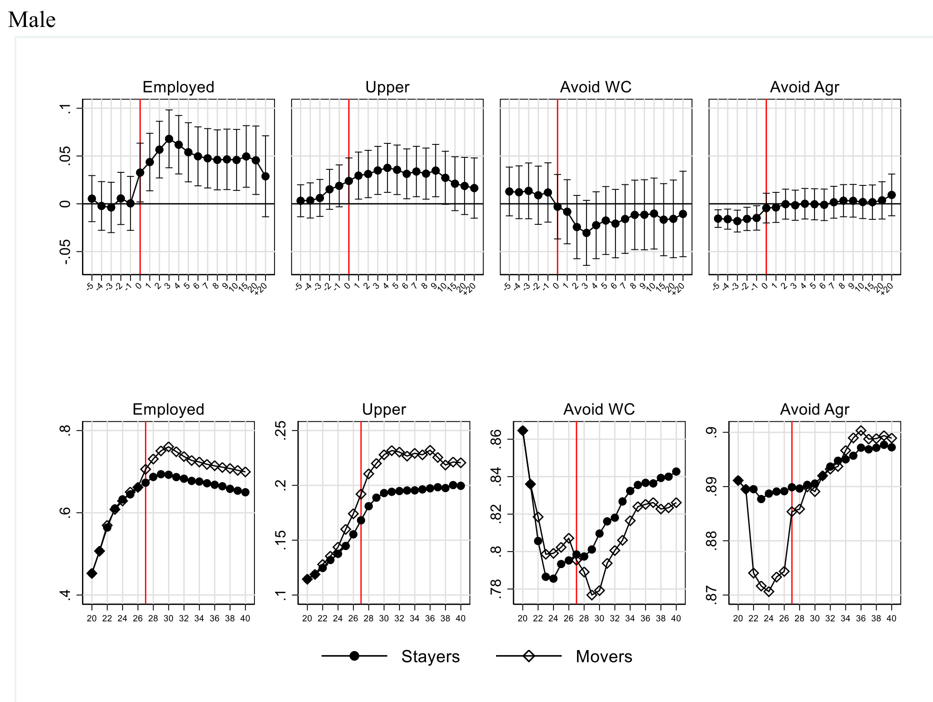


Fig. 4 Effects of geographical mobility on occupational outcomes in relation to time to/since movement. Beta coefficients (upper panel) and predicted probabilities over age (lower panel). Distributed LPM with FE. Male

0.06) exactly in the quarter of migration, while for the latter the same effect drops from – 0.02 (CIs: – 0.05, 0.01) to – 0.04 (CIs:v0.07, 0.02), so that the pattern over time of employment does not appear to be related to the GM event. The comparison of the predicted probabilities of being employed of the movers with those of the stayers, provided by the lower panels of Figs. 4 and 5,[8] shows that in the case of men an impact of GM on occupational attainment is clear, as the employment probabilities of movers diverge from those of the stayers in correspondence to the migration event, while in the case of women the pattern is different: the employment probabilities of the movers are higher than those of the stayers before migration; they then drop, to some extent recover with the migration event, and then start dropping again.

Female movers therefore experience a reduction of their employability already before their movement, confirming the importance of the self-selection of women into GM. To be noted that is, according to our analysis, in Italy the penalization of women after GM is not temporary, as it is elsewhere (Clark & Huang, 2003; LeClere & McLaughlin, 1997), but permanent, because their employment chances never reach the pre-migration level. The employment probability of the female stayers, by contrast, exhibits a more straightforward pattern, increasing up to a plateau at around age 35, then decreasing over time.

In the terms of Fig. 1, we observe here an *immediate returns* pattern for men, and a *selection into trajectories* pattern for women: with GM, the employment probabilities of

[8]One should also note the different scales of the graphs, related to the different average probability of employment between genders.

Female

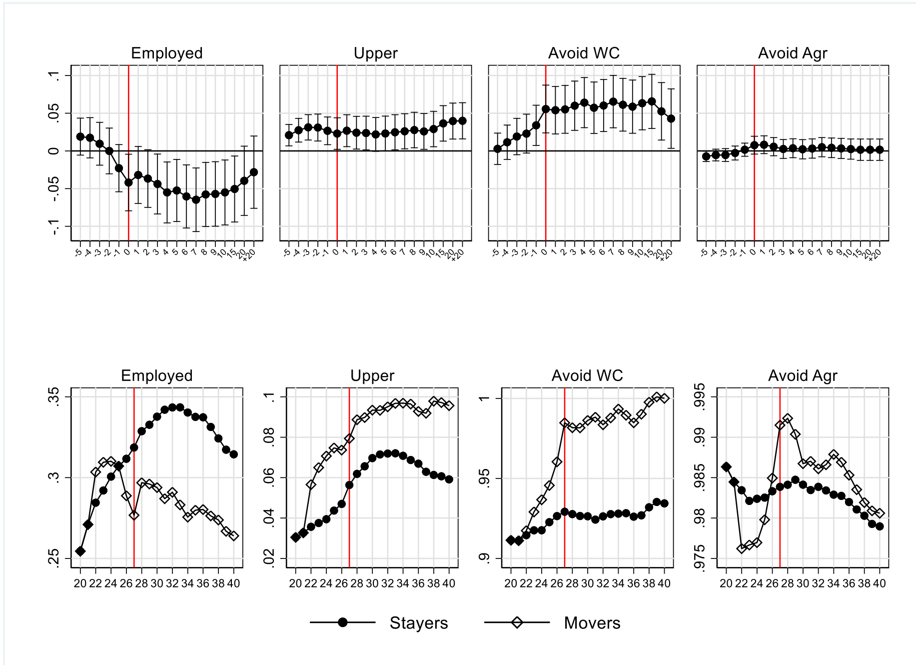


Fig. 5 Effects of geographical mobility on occupational outcomes in relation to time to/since movement. Beta coefficients (upper panel) and predicted probabilities over age (lower panel). Distributed LPM with FE. Female

men increase immediately, while in the case of women the pattern of employment probabilities follows a trajectory with no clear relation to GM. This is likely to depend on the different mechanisms driving GM for the two genders: while in the case of men GM has usually an occupational motivation, in the case of women (at least Italian women born between 1925 and 1975) family-related motivations are more frequent.

In regard to the relation between GM and access to the upper occupational strata, male and female patterns show more similarities. In the case of men, the effect of GM becomes significant after the migration, but it is already apparent before that event, while in the case of women it appears to be stable over time. On comparing movers with stayers, for both men and women, the occupational advantage associated with GM appears before the migration event itself: in the case of men, the predicted probabilities of the movers diverge from those of the stayers at around the age of 24, while in the case of women the divergence takes place at the beginning of our observation window. According to our typology (Fig. 1), in the case of men the pattern is closer to the 'selection into trajectories' scenario, while in the case of women it is more similar to the 'selection into groups' one. In both scenarios, however, GM does not explain, by itself, the increased probability of accessing the upper class on the part of movers. In the case of men, GM appears to be part of an ascending career, while in the case of women it appears that movers are selected according to some unobserved factor, for instance occupational motivation or a quest for personal independence, which might account for both GM and occupational attainment.

In regard to the relation between GM and avoidance of the working class, in Table 2 we have seen opposite effects for men and women. The distribution of the effect shows that for males the effect of GM appears immediately after the movement, although the differences are not significant at the standard levels, while for women the opposite trend appears before the event, thus following a ‘selection into trajectories’ scenario. The patterns of the predicted probabilities are consistent with this interpretation: while for women the ascending trajectory of the movers diverges from the flatter one of the stayers well before the migration event according to a ‘selection into trajectory’ pattern, in the case of men we observe for both movers and stayers a U-shaped pattern, but for the former the probability of avoiding the WC drops sharply in correspondence to the event, and then increases again over time, similarly to that the probability of the stayers but at a slightly lower level. Again, a direct relation between GM and occupational attainment may be supposed as far as men are concerned (despite the large uncertainty of our estimations), but this is not the case of women.

Concerning our fourth outcome, avoidance of the agricultural class, for both genders the magnitude of the effect is quite small. Indeed, the average probability of avoiding agriculture is extremely high for both men and women, given the huge urbanization process that affected Italy during the observed period. However, despite the small magnitude of the effect, the pattern of predicted probabilities shows that GM enabled those individuals who had a higher probability of entering the agricultural class before the event to avoid that ‘risk.’

Geographical mobility and individual origins

Now that the effect of GM on occupational attainment, as well as its distribution over the course of life, has been described, this section focuses on its heterogeneity. The general question is this: does the effect of GM change according to social and geographical origins? And if it does, is it stronger for those disadvantaged by their origins (compensation), or for those who are advantaged (boosting)? If the former scenario fits the data better, a further question can then be posited: does GM enable individuals to move up the hierarchy of social stratification, changing the latter (to some extent)? We answer these questions by estimating Eq. 1 by social (Fig. 6) and geographical origins (Fig. 7). Unfortunately, the sample size allows neither separate analyses by gender nor study of the effect’s distribution over time.[9] Moreover, the limited sample size leads to large CIs, so that many estimates are not significant according to the conventional criterion ($p < 0.05$). However, when the direction of the effect is clear and makes substantial sense, we comment on it, but the uncertainty of the estimates has always to be kept in mind.

First, we look at the interaction between class of origin and GM. Figure 6 shows in the upper panel the average marginal effects of GM: that is, the difference between movers (M) and stayers (S) for the three occupational outcomes considered, estimated separately for four classes of origin, while the lower panel shows the average prediction for both groups as estimated by our model.

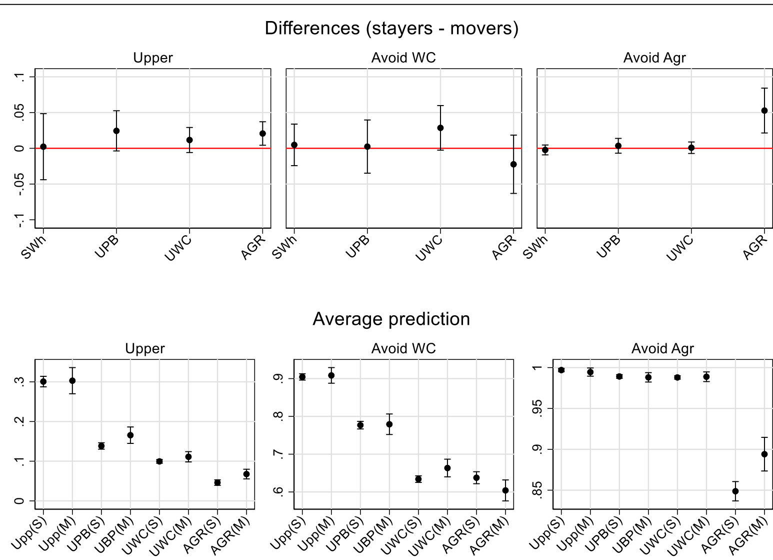
When the difference in the probability of entering the upper class is considered (upper left-hand panel of Fig. 6), a compensation pattern is apparent. In fact, GM makes no difference for individuals belonging to this class (β = 0.00, CIs: – 0.04, 0.04),

[9]We also skip, for lack of space, the analysis of unemployment. The results pooling men and women are of little interest because the patterns for both genders are specular to the extent that they cancel each other.

whereas it has a positive effect for the petty bourgeoisie (β = 0.02, CIs: – 0.00, 0.05), the working class (β = 0.01, CIs: – 0.00, 0.03), and the agricultural classes (β = 0.02, CIs: 0.01, 0.03). However, when the average predictions of entering the upper class for both movers and stayers of different social origins are compared (lower panel of Fig. 6), it is evident that the magnitude of the effects is not enough to change the social hierarchy.

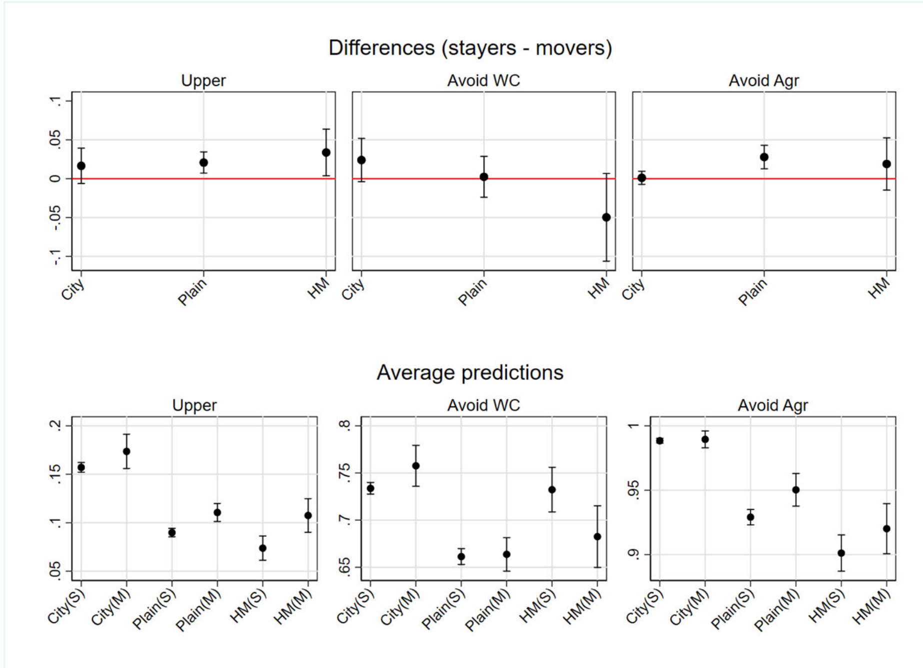
The social hierarchy is unaffected also when the average predictions of avoiding the working class are considered (middle panels of Fig. 6), with the upper classes at the top, the urban petty bourgeoisie at the middle, and the agricultural and working classes at the bottom of the scale. In this case, moreover, the compensation pattern is less clear: only among individuals from the working class is the average marginal effect positive (β = 0.03, CIs: – 0.00, 0.6), while for the other classes the magnitude of the effect is null, as in the case of the service class (β = 0.00, CIs: – 0.02, 0.02) and the petty bourgeoisie (β = 0.00, CIs: – 0.03, 0.03), or even negative for the agricultural class (β = – 0.02, CIs: – 0.06, 0.01).

Finally, concerning our third occupational outcome—avoidance of the agricultural classes (right-hand side of the figure)—predicted values are high for all social classes of origin, as to be expected given the upgrading of Italian occupational structure, including the decrease over time of agricultural jobs and the associated increase first in manufacturing and then in the service sector. The probability of avoiding an agricultural job is high even among individuals with an agricultural origin (81% for stayers



Note: Upp(S)= upper class-stayers; Upp(M)= upper class-mobile; UPB(S)=urban petty bourgeoisie-stayers; UPB(M)=urban petty bourgeoisie-mobile; UWC(S)=urban working class-stayers; UWC(M)=urban working class-mobile; AGR(S)= agricultural-stayers; AGR(M)=agricultural mobile.

Fig. 6 Occupational attainment by social class of origin: average predictions (upper panel) and average marginal effects (lower panel). LPM with FE. Upp(S) = upper class-stayers; Upp(M) = upper class-mobile; UPB(S) =urban petty bourgeoisie-stayers; UPB(M) =urban petty bourgeoisie-mobile; UWC(S) =urban working class-stayers; UWC(M) = urban working class-mobile; AGR(S) = agricultural-stayers; AGR(M) = agricultural mobile



Note: City(S)= city-stayers; City(M)= city-mobile; Plain(S)= plain-stayers; Plain(M)= plain-mobile; HM(S)= hill or mountain-stayers; HM(M)= hill or mountain-mobile.

Fig. 7 Occupational attainment by geographical area of origin: average predictions (upper panel) and average marginal effects (lower panel). LPM with FE. City(S) = city-stayers; City(M) = city-mobile; Plain(S) = plain-stayers; Plain(M) = plain-mobile; HM(S) = hill or mountain-stayers; HM(M) = hill or mountain-mobile

and 87% for movers), but a positive effect of geographical mobility appears only for those born from parents working in agriculture (β = 0.05, CIs: 0.02, 0.08). This confirms, at least for the Italian case, the relation between GM, urbanization in particular, and the changes in the occupational structure. In fact, most of the individuals born in agricultural classes in the central cohorts of the twentieth century managed to move out of their class of origin by entering a job in manufacturing located in a place different from the one in which they were born.

To sum up, the effect of GM exhibits a compensation pattern when the chances of entering the top of the occupational hierarchy are considered, since it is systematically stronger for the lower classes, even if the uncertainty of the estimates makes some effects not statistically significant. When the other two outcomes are considered, i.e., the risks of avoiding the working and agricultural classes, GM appears to create a differentiation *within* the social classes of origin. Indeed, a change of place enables individuals from the working and agricultural classes to reduce the risk of immobility. However, in all cases, the limited magnitude of the effect of GM does not allow individuals to 'climb' the social hierarchy by fully compensating the ascribed advantage related to their social origin.

We now consider the interaction between GM and geographical origin, as reported in Fig. 7, which has been constructed in similar manner to the previous Fig. 6, substituting geographical origin for social class of origin.

Concerning access to the upper class, some evidence of a compensation pattern is apparent, because the positive effect of GM increases slightly for the less advantaged geographical origins. Indeed, movers from cities increase their chances of accessing the top class by 2 pp (CIs: − 0.00, 0.39), like those from the plains (β = 0.02; CIs: − 0.00, 0.34), whereas those originating from hills and mountains increase their chances by 4 pp (CIs: 0.0, 0.60). Also in this case, the average predictions confirm the existing hierarchy, even if the differences are smaller in this case than in that of social classes. However, in this case, GM substantially reduces the status distance between individuals originating from different geographical areas, especially among those coming from rural areas. By changing their place of residence, those individuals who are from upland and mountainous areas are able to achieve the same probabilities of accessing the upper classes as those who originate on the plains and have not moved. However, they definitely do not reach the level of probability of those who are originally from urban areas and did not move.

When the possibility of avoiding the working class is considered, the sign of the effect of GM changes. It is in fact positive (β = 0.02, CIs: − 0.00, 0.05) for individuals from cities, null for those from plains (β = 0.00, CIs: − 0.02, 0.02), and negative for those from mountainous areas (− 0.05, CIs: − 0.11, − 0.01). In this case, therefore, the interaction between GM and origin is closer to a boosting pattern than to a compensation one. In order to interpret this finding, we speculate that in this case GM fuels a succession process within the working class of urban areas. On the one hand, it reduces the risk of entering this class for those originally from those same areas, who improve their circumstances by moving to middle-class jobs, whereas, on the other hand, it increases the chances of becoming working-men and -women of those who come from the more marginal mountainous areas. Also in this case, however, the hierarchy based on geographical origin remains substantially unchanged by GM, because the chances of avoiding the working class remain at their highest among individuals from cities, independently of their mobility history.

When the possibility of avoiding the agricultural working class is considered, a well-defined hierarchy among people from geographically different places of origin is also to be seen. It advantages those born in cities with respect to those born in the hills or mountains, with those from rural plains in an intermediate position. In this case, however, the effect of GM exhibits a compensatory pattern, since it is positive only for individuals from rural areas: 0.03 (CIs: 0.01, 0.04) and 0.02 (CIs: − 0.01, 0.05) for those from plains and mountains respectively, although in the latter case the estimate is not statistically significant (p = 0.270). However, also in the case of this type of occupational outcome in no way is the compensation pattern so strong as to fully compensate for the ascribed disadvantages related to the place of origin.

Conclusion

This paper has used a uniquely detailed dataset for Italy to study the effect of GM on four measures of occupational attainment, i.e., employment, access to the upper class, and avoidance of the working class and of agricultural occupations. It has moved through three analytical steps. First, it evaluated the effect of GM on occupational attainment by means of a set of linear probability panel models with FE. Different types of GM were considered, distinguishing movements by the geographical features of both place of origin and destination, by the distance involved and by their repetition over the individuals' life course. Second, it observed the distribution of this effect over the life course. Third, it investigated the heterogeneity of the effect of GM on occupational attainment over social and geographical origins. Since GM is a gendered phenomenon, genders were kept separate in the analysis, except in the third step, because sample size did not allow it.

First, the analyses showed that the effect of GM changes substantially between genders for two of the occupational outcomes considered, namely employment and the avoidance of the working class. For men, GM increased the probability of employment and of a working-class job, while for women it decreased both probabilities. This result may be seen as confirming the 'tied migration' pattern, by which women often move following their male partner's occupation-oriented GM. Indeed, we have provided evidence of substantial differences in the relation between GM and attainment between married and unmarried women, while in the case of men marriage did not make a strong difference. We attribute such different patterns to the gendered motivations underlying GM in a male bread-winner society as Italy was in the second half of the last century (Esping-Andersen, 1999). In such a context, for men spatial mobility is typically an occupational investment, mostly motivated by the need to find a job or to improve one's career prospects, while for women it is mostly driven by the necessity to keep the family together and to support their partners' occupational project by caring for the children (Panichella, 2014).

Moreover, this gender cleavage disappears when particular types of GM are considered, as in the case of urban-bound GM or in the case of repeated GM. In these cases, the effect of GM on female attainment is positive and similar to what is found for males, as the selection of women into these types of GM differs from the one based on family reunification, producing the general result of a negative effect of GM for females. We attribute this difference to different selection processes operating for different types of GM: among women who choose to move to urban areas and more than once, occupation-oriented motivations may be more frequent, thus making the impact of their GM on attainment more similar to the case of men, who mostly move for occupational reasons. This interpretation confirms the existence of substantial heterogeneity concerning women's relationship with work and occupation (Hakim, 2000).

Second, analysis of the distribution of the occupational effects of GM over the life-course shows the details of this picture. While in the case of male GM the probabilities of employment increase immediately, in coincidence with the migration event, in the case of moving women the divergence with respect to those who do not move appears before the GM, so that the (negative) association between GM and employment opportunities may be attributed to a selection process driving both female GM and decreasing employment opportunities. The picture concerning avoidance of the working class is quite similar.

More similar patterns between genders were found for the two further occupational outcomes investigated, i.e., the probability of accessing the upper occupational strata and the probability of avoiding an agricultural job. In the case of the former, while we generally find a positive association between GM and access to the mid- and high-level occupations, the distribution of the association over time suggests that for neither gender is it correct to talk about an actual 'effect' of GM, because the probability of the movers diverges from those of the stayers since 3 or 4 years before the actual mobility event in the case of men, and is different throughout our observation window for women. In both cases, movers are selected: males who move are selected into an occupational trajectory different from that of the stayers, while females who move belong to a different group. In the case of avoidance of agricultural occupations, the average probability is so high, given the massive urbanization process taking place in twentieth-century Italy, that there is little space left for variation, whether due to GM or something else. Also in this small space, however, our results show that GM is positively associated with avoidance of an agricultural job, and that the association is stronger for men.

Third, the paper has considered the relation between GM and social and geographical origins. The positive impact of GM on occupational attainment was found to be stronger for individuals originating from the middle and lower classes and from rural areas. Consequently, the occupational effect of GM appears to deviate to some extent from the 'cumulative advantage' pattern prevailing in the processes of stratification in contemporary wealthy societies. Evidence showed, however, that such an effect is not sufficiently strong to enable individuals from a disadvantaged class of origin to change their position in the occupational hierarchy, fully off-setting their disadvantage with respect to those with a better origin. To use Sorokin's (1927) terminology, 'horizontal' geographical mobility cannot overcome the 'vertical' hierarchy of social stratification. Moreover, the compensatory pattern that we found is mitigated by the positive selection of movers: since GM involves costs and risks, those from better-off families and with more resources are more inclined to move, also in the Italian context (Panichella, 2012, 2014). However, GM can to some extent overcome the occupational advantages related to place of birth, which are on average smaller than the ones related to class of origin. Moreover, GM effectively operates *within* the constraints defined by the vertical hierarchy, providing to members of the middle and working classes who move an occupational advantage with respect to those who do not.

In general, our paper has shown that the relation between GM and occupational attainment is worth studying for three main reasons. First, because it is important: GM may indeed have a substantial impact on attainment, in particular by improving employment opportunities and the probability of accessing the upper class, in some cases to some extent compensating for disadvantages related to social and geographical origin. Second, because it is heterogeneous: the general effect is the average of a number of different patterns depending on the social groups involved, on the type of GM considered, and on their interaction. In regard to social groups, on the one hand a marked gender cleavage was found when GM in general was considered, but consideration of particular types of GM suggested substantial heterogeneity among women. The main limitation of the paper concerns statistical power: despite a relatively large sample, the uncertainty of some of our estimates is quite high, discouraging more detailed analyses. A second limitation concerns the fact that our sample is 15 years old. It might thus be argued that economic downturns (such as the 2008 financial crisis) and innovations in mobility technology (for instance the introduction of high-speed trains in the mid-2000s) have both changed the pattern we observed for the preceding period. This may be true to some extent, but the argument cannot be tested in the absence of more recent data sources including information as detailed as the source used in this paper. Such data might also shed additional light on one of the key findings of the paper, namely the gendered pattern of the association between GM and occupational attainment, particularly as regards heterogeneity among women.

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