Social Origin and Secondary Labour Market Entry at the Crossroad of Ascriptive and Institutional Inequality

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Abstract
This paper investigates how labour market flexibilisation strengthens the role of social origins in conditioning inter- and intragenerational mobility chances. Drawing on the upper-class aversion to downward mobility, we explore mechanisms through which advantaged social origins directly compensate for the socioeconomic penalty that arises from initial contractual instability over the career. Conversely, we examine whether a bad start for less-socially privileged entrants represents a source of cumulative disadvantages. The Italian and German labour markets are optimal national cases since they share a partial and targeted deregulation process, but they differ in terms of their LM institutions and mobility regimes. We combine propensity score matching and growth curves to counterfactually compare the career development of service- and working-class entrants in the two countries who began with similar socioeconomic status. We reveal that social origin contributes to unequal trajectory developments in both contexts, especially for the low- and middle-educated. No significant DESO over the career emerges among degree holders in either country. Finally, attending university entirely reduces the flexibility penalty in Italy, whereas for German graduates, initial instability serves as a gateway to more-prestigious jobs.
1. Introduction

Studies on intergenerational social mobility have long been concerned with providing a sophisticated description of social-mobility rates, patterns, and variations among Western countries while have paid less attention to the mechanisms that generate mobility, with the mediating role of education being the main exception (Breen & Müller, 2020; Bukodi et al., 2016; Erikson et al., 1992). A second, less-common stream of research has focused on the structural and institutional changes at the basis of different patterns and outcomes of social mobility, among which demographic variations and labour market reforms have been deemed to be the most influential (e.g. Becker et al., 2018; DiPrete, 2020; Esping-Andersen, 2015; Kalleberg & Mouw, 2018; Lersch et al., 2020; Yaish & Andersen, 2012).

Although social class has always been conceptualised in terms of social relations within labour markets, the labour market and its transformations (automation, tertiарisation, and dualisation between insiders and outsiders) have never benefited from a central position in the stratification debate. Specifically, knowledge on the relationship between persistent ascriptive inequalities in mobility opportunities and the transformations of employment relations in post-Fordist labour markets is essentially missing. This lack of knowledge is problematic because the process of labour market flexibilisation has led to additional inequalities in the labour market (hereafter: LM) that may have strengthened the role of social origins in conditioning inter- and intragenerational mobility chances.

Briefly, the Ford–Keynesian equilibrium crisis led Western countries to undertake a process of employment flexibilisation aimed at optimising labour market efficiency by reducing frictions, lowering adjustment costs, and tackling rising unemployment rates (Esping-Andersen & Regini, 2000; Eyck, 2003). In parallel, the decrease in aggregate labour demand and increasing global competition—fuelled by rapid technological change—have contributed to the need for quick size- and skills adjustments in order to cope with market fluctuations (Breen, 1997). While LM adjustments have leveraged wages in flexible Anglo-Saxon countries, in Europe, institutions have adjusted to macrostructural trends by leveraging job security. Specifically, European countries have introduced fixed-term- and other atypical employment contracts (DiPrete et al., 2006). Of particular interest are the Mediterranean and Continental contexts, and specifically Italy and Germany, where labour market deregulation has been partial (with a main focus on labour market access and ignoring dismissals) and targeted (either at younger workers or at unskilled occupations) depending on the characteristics of the production regime (Barbieri, 2009; Kahn, 2010, 2012). The relatively strict employment protection (EPL) for the core labour force has instead remained unaltered, thereby leading to a process of LM dualisation (Palier, 2010).

Considering LM entry, these two countries represent a two-tiered labour market (Barbieri et al., 2016) with (i) a safe core workforce composed of workers who began their careers stably and (ii) a flexible peripheral “workforce buffer” of workers who experience lower employment security, reduced welfare entitlements, and potential occupational entrapment (Barbieri & Cutuli, 2018; Blossfeld, 2008; Gebel & Giesecke, 2011). On top of this institutionally originated inequality, mobility studies point to the early career as the life-course phase in which ascriptive differences establish long-lasting career disparities among workers (Barone et al., 2011; Manzoni et al., 2014). In particular, social origin affects individuals’ occupational sorting and trajectories, even net of their achieved level of education (Bernardi & Ballarino, 2016). The rational aversion to downward mobility and to the social demotion of the upper class leads to mechanisms either of
compensation in order to recover from potential initial disadvantages (Bernardi, 2014; Breen & Goldthorpe, 1997; Goldthorpe, 2007) or of boosting in order to maximise status, earnings, and occupational prestige (Friedman and Laurison, 2020), thereby leading to a process of cumulative advantage (DiPrete & Eirich, 2006).

Passaretta and colleagues (2018) investigated whether the process of LM flexibilisation has paved the way for more-meritocratic job allocation with a decreasing direct effect of social origins (DESO). However, their findings confirm the presence of persistent ascriptive inequalities across cohorts and over periods and provide evidence of a cumulative advantage. Nevertheless, no systematic attempt to focus – in a comparative perspective – on the potential combination of ascriptive and institutionally driven inequalities in shaping LM disparities has yet been undertaken. The present work therefore contributes to filling this gap.

By bringing together these perspectives, we empirically investigate whether advantaged social origins can directly (net of the achieved level of education) compensate for a “bad labour market entry” over the early career and whether initial instability for less-socially privileged entrants represents a source of cumulative disadvantage. On top of this research question, we further address the ongoing and vivid debate around whether completing tertiary education paves the way to a more meritocratic and origins-free labour market (Hout, 1988; Zhou, 2019) – even more so in presence of unrelenting technological progress, which increases (high) educational payoff and (high) skill remuneration (Autor, 2015; Autor et al., 2003). We thus investigate whether such interaction is moderated by the achieved level of education. We begin this article (Par. 2.1) by reflecting on the different occupational scenarios associated with flexible starts (integration vs entrapment). Secondly, we examine the role of social origins in directly influencing/compensating for secondary LM entry (par 2.2). Thirdly, the article discusses the moderating role of human capital in individuals’ early career paths (Par. 2.3). Lastly, we address the contextual influence of Italian and German institutional and structural features and place a particular focus on educational models, labour market segmentation, and mobility structures (Par. 3). A Discussion of Data and Methods (Par. 4), Empirical Results (Par. 5), and Conclusions (Par. 6) follow.

2. Institutionally originated inequalities, ascriptive disparities, and their interactive mechanisms

2.1. A flexible starting in Italy and Germany: a bridge or a mobility trap?

Initial employment instability is associated with greater variability in the development of occupational trajectories (Lersch et al., 2020). The literature has long tested whether atypical entry serves as a beneficial stepping-stone for secure and more-rewarding jobs or whether it stands as a scarring trap in the way of future career chances. While the vast majority of empirical work has addressed micro- and macro-level differences in the mobility chances of transitioning to permanent employment (see Kalleberg & Mouw, 2018), our interest lies in occupational mobility outcomes. A transition to the primary LM is clearly quite often a driver of upward mobility (Passaretta & Wolbers, 2019).

The entrapment hypothesis states that employers rely on flexible arrangements primarily to buffer labour costs and to bypass strict dismissal rules, especially in strongly segmented LMs
Neither employers nor employees are in this case encouraged to invest in training or skill development (Kahn, 2010; Barbieri et al. 2014), and protracted precarious experiences contribute to human capital depreciation (Gagliarducci, 2005). In parallel, during the further hiring process, fixed-term experience may be a negative signal for future employers, who feel discouraged by candidates who have not been offered a permanent position upon the expiration of a fixed-term contract. From a mobility perspective, worse working conditions, less time for actively searching for a job, and negative future stigma increase the risk of being locked into carousel careers, thereby potentially reducing upward career chances (Passaretta & Wolbers, 2019) and leading to immobile or reduced earnings (Barbieri & Cutuli, 2018; Kuhn, 2020).

In stark contrast, the integration scenario frames flexible starts as a necessary bridge towards stable and (even-)better-rewarded occupations. Employers may adopt fixed-term contracts as an initial screening device to evaluate workers’ productivity before a longer employment relationship takes place (Gebel, 2010; Giesecke & Groß, 2004). Bad matching – particularly for high-skilled occupations – is very costly in primary labour markets, in which unproductive stable workers enjoy high levels of protection from dismissals. In accounting for future hiring processes, this scenario predicts a positive evaluation for candidates with functional short-term work experiences, which signal an investment in gaining specific and interpersonal skills. While some empirical work has found positive impacts of initial flexibility on further contractual stability (Auray & Lepage-Saucier, 2020; Berton et al., 2011), this impact is less clear for wages and socioeconomic mobility. Nonetheless, these premises point to greater chances of upward career mobility, thereby compensating for the bad start and even providing relative future advantages in terms of earnings and occupational status.

### 2.2. How social origins directly compensate for disadvantaged starts

From a career-mobility perspective, the interaction between a flexible start and social origins is particularly important. Parental class determines individuals’ occupational careers, and much of its effect passes through the educational channel (Blau & Duncan, 1967; Müller & Gangl, 2003; Shavit & Müller, 1998). Class is known to lead to advantages in early skills (Karlson & Birkelund, 2019), at school (Calarco, 2018), and in the quality and chances of successfully completing tertiary education (Breen et al., 2009). However, social background directly intervenes in individuals’ trajectories both at LM entry and over intragenerational development, thereby reinforcing existing inequalities. In other words, better-off parents with a high level of social status are rationally motivated to compensate for their children’s initial labour market “failures” in order to avoid them downward mobility. At the beginning of and over the career, the DESO can act through either indirect endowments or direct investments (Erola et al., 2016): A more prestigious background leads to greater motivation, increased productivity-related non-cognitive skills (Gil-Hernández, 2019; Gugushvili et al., 2017), higher levels of self-esteem (Kraus & Park, 2014), monetary safety nets, and profitable networks (Friedman & Laurison, 2020; Rivera, 2016) in addition to advantages due to social closure (Bernardi & Gil-Hernández, 2020; Laurison & Friedman, 2016).

In the present work, these ascriptive mechanisms are assumed to be relevant in relation to institutionally originated inequality in the LM. We therefore investigate whether the class of origin directly differentiates the intragenerational career mobility (in terms of the socio-economic condition: ISEI score) of secondary labour market entrants. Since contractual instability at labour
market entry is potentially associated either with entrapment in the peripheral market or with employers’ screening practices, we derive competing expectations according to both discussed scenarios.

In a dynamic perspective, we expect LM entrants from higher classes to activate compensatory mechanisms over their careers in order to close any initial socioeconomic gaps with individuals who entered the primary market stably if these higher-class entrants’ initial flexible employment is associated with lower occupational SES. Conversely, working-class entrants who lack such privileges are expected to more likely end up entrapped in less-prestigious and more-poorely remunerated jobs compared both with their stable counterparts and with socially advantaged workers. Accordingly, ascriptive disadvantages and initial instability eventually result in a cumulation of disadvantages. When, instead, initial contractual instability tests workers’ productivity, we expect LM entrants from the upper classes to maximise their prospective upward mobility through boosting mechanisms. Indeed, an advantaged background often translates to exploitable parental networks, to conformity to formal and informal social-closure rules, and to monetary sustainment in case of initially low-paying jobs. Even in this case, a disadvantaged parental background hinders career progression. Scholars refer to this phenomenon as a ceiling effect, and Friedman and Laurison (2020) recently coined the term “class ceiling”, which refers particularly to mobility.

In light of the current LM structure, we mapped out how labour market imbalances (primary/secondary LM) and ascriptive inequalities are expected to interact. Overall, when considering initial flexibility either as a precarity trap or as a springboard, the DESO is expected to operate in maintaining or even reinforcing existing inequalities. If so, flexible employment solutions should be interpreted as contributors to the persistent inequality of opportunities, even when adopted to reach upper-class jobs.

2.3. Tertiary education as the meritocratic equaliser?

Evidence of intergenerational social mobility reveals sizeable advantages for the upper classes among degree-holders in terms of both occupational prestige and income (Ballarino et al., 2020; Bernardi & Gil-Hernández, 2020; Fiel, 2020; Witteveen & Attewell, 2020), even in highly mobile contexts.¹ Service-class descendants with a university degree not only manage to enter the market with better jobs but – thanks to the family-related boosting advantages – also more easily reach more remunerative job positions over their careers. This finding is in line with the effectively maintained inequality mechanism (Lucas, 2001, 2017): A high parental background guarantees persisting advantages via economic, cultural, and social capital.

Intergenerational mobility researchers point to heterogeneous DESO mechanisms depending on the achieved level of education, which reveals its additional moderating role. Tertiary education is indeed claimed to be the great equaliser (Breen & Jonsson, 2007). In other words, the labour

¹ Research on Scandinavian countries has shown that the disadvantages associated with low social origins have largely disappeared, but the advantages related to privileged origins persist (Esping-Andersen & Wagner, 2012). However, other research based on more-appropriate longitudinal and register data for the US and DK has demonstrated that the greater Danish income mobility is mainly welfare-driven (via redistributational tax and transfers and wage-compression policies), while class educational differentials are maintained due to the redistributitional policies that increase income mobility (Landersø & Heckman, 2017).
market is perceived as being more meritocratic among degree holders, and background-related differences are supposed to vanish – or at least the gap in occupational and income attainments is expected to weaken over the career progression (Goldthorpe & Jackson, 2007; Torche, 2011). At the same time, individuals’ credentials and skills may also influence the occurrence of screening/trap scenarios when entrants experience contractual instability (Giesecke & Groß, 2003).

Highly skilled, task-complex, and more-remunerative jobs are the outcome of a trend of growing technological change and processes of automation that has led to an increasingly positive payoff from education and human capital (Autor et al., 2003), whereas the employment contract appears weak as a predictor of the quality of the career progress. The literature reveals that new jobs in highly innovative sectors and firms often require an initial episode of contractual precarity as a trial run for the newly hired (Mattijssen & Smits, 2020). Thus, if tertiary education truly equalises LM opportunities and the new technological developments increase human-capital rewards, we should find neither background-related differences in the occupational trajectories of highly educated unstable entrants nor remarkable differences between stable and unstable tertiary-educated LM entrants. For all unstable entrants with tertiary education, we hence expect an equalisation, at least concerning gaps between primary labour markets. However, a more prestigious background could still result in additional boosting advantages, thereby increasing background-related differences over the career progression.

On the other hand, we expect a stronger influence of the class of origin among the less-educated since higher-class parents are motivated to use their compensatory advantages to offset their children’s low educational achievements and to avoid downward mobility. Flexible contracts would thus more likely serve to buffer demand fluctuations among less-skilled workers and less-complex occupations, which is in line with the entrapment scenario (Gebel, 2010). It is exactly among the less-educated that we expect to find a clear compensation pattern among upper-class descendants, whereas we expect to find persisting occupational disparities among LM entrants from disadvantaged backgrounds.

In sum, the two distinct ways in which the DESO contributes to persisting intergenerational inequalities over the work career can be described by the “lift” (compensation for the low-educated) and “push” (a boost for the highly educated) analogies (Bernardi & Ballarino, 2016). Table 1 summarises the combination of hypothesised mechanisms.

Table 1: Sum of hypothesised mechanisms concerning the intragenerational mobility of unstable labour market entrants according to their achieved level of education

<table>
<thead>
<tr>
<th>Origins</th>
<th>Education</th>
<th>Lower/Middle Educated</th>
<th>Highly Educated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service class</td>
<td>Compensation</td>
<td>Boosting</td>
<td></td>
</tr>
<tr>
<td>Working class</td>
<td>Entrapment</td>
<td>Equalisation</td>
<td></td>
</tr>
</tbody>
</table>
3. Italy and Germany: structural and institutional differences

Concerning institutionally originated LM inequalities, scholars generally blame the rigidity and segmentation of EU national LMs for their degree of dualism and for further increasing penalties in the secondary LM (Barbieri & Cutuli, 2016; Bentolila et al., 2020; Gebel & Giesecke, 2016; OECD., 2019). Specifically, two groups have been shown to be particularly at risk of occupational precarity: young LM entrants in Italy – especially women (Struffolino, 2019) – and less-skilled workers in Germany (Barbieri, 2009). The former lack work experience, seniority, and networks, which prevents them from accessing secure and well-paid jobs. Low-skilled workers are hardly attractive to post-Fordist, technologically non-routine tasks (Oesch & Menés, 2011). Employers might therefore prefer to hire them via flexible arrangements that allow for easier dismissal when fixed-term contracts expire. In line with this understanding, the literature generally associates Italy with the entrapment scenario (Barbieri et al., 2016; Barbieri & Scherer, 2009), whereas the situation in Germany appears less clear-cut, with higher rates of secondary-to-primary LM flows and fewer unemployment risks after a flexible career start (Eichhorst, 2014; McGinnity et al., 2005). However, as stated, only a few researchers have considered occupational achievement and intragenerational mobility as an outcome of the interaction between social background and LM dynamics: From this perspective, the two countries display major differences. Italy is characterised by low social fluidity (Barone et al., 2011) and a strong and persistent effect of the class of origin in determining mobility chances (Passaretta et al., 2018). In this context, structural and institutional constraints hinder or limit career progression. Scholars point to strictly regulated labour- and product markets and to the dominant presence of small- and micro-firms, which mainly opt for competitive strategies based on labour-cost reduction and which discourage workforce training (Gangl, 2003; Konings & Vanormelingen, 2015; Müller, 2005; Nicoletti et al., 1999). Moreover, the Italian skill-formation system focuses mostly on standard academic skills and does not adequately match the rapidly changing skill demand (Passaretta & Triventi, 2015). This inadequacy hence suggests that initial LM disparities persist, thereby leaving vast room to the influence of parental background as a way of compensating for non-optimal initial occupational achievement.

Germany, on the other hand, is a high-wage economy with a strong industrial core that mainly focuses on capital-intensive productions, which are heavily export-oriented when compared with those of other industrial EU countries. Such export orientation incentivises firms to compete not only in terms of prices but also in terms of quality and innovation, which translates to overall better work- and pay conditions, also for temporary workers. Additionally, Germany features a better match between skill supply and job demand that is driven by both a dual, vocational education system that provides differentiated job-related skills and an occupational-based LM (Maurice et al., 1986) that ensures and incentivises in-job training- and mobility chances (Estevez-Abe et al., 2001). Again, this superior occupational match and the greater mobility chances supposedly also provide advantages in case of contractual precarity. Wage differentials in younger age between permanent and temporary contracts in Germany are, in fact, notably lower, especially when compared with Italy (Regoli et al., 2019). Despite the more-fluid market structure, the parental influence – and therefore the direct effect of social origins – is still present in Germany, albeit to a lesser extent than in the Italian case (Bernardi & Ballarino, 2016).
Following Maurice and colleagues (1986), we therefore consider national LM institutions to be the overarching structure in the development of employment relations, contextually dependent life-course trajectories (Lersch et al., 2020; Mayer, 2004), and mobility chances (Diprete, 2020). We expect to find higher occupational penalties both at the start of and over the career that are associated with unstable flexible entries in Italy. The overall Italian immobility is also hypothesised to result in a stronger direct impact of ascriptive advantages, particularly among the less-educated. On the contrary, in Germany, we expect to find reduced (or even non-tangible) flexibility-driven penalties. However, diffused training- and mobility opportunities notwithstanding, we expect to find a sizeable impact of the class of origin on occupational achievement either as compensation or as a boosting pattern.

4. Data and Methods

4.1. Data and Variables

We draw on two country-specific retrospective datasets: the Multipurpose Household Social Survey (Famiglie e soggetti sociali, FSS) waves from both 2009 and 2016 for the Italian case and Starting Cohort 6 of the National Educational Panel Study (NEPS, 2011) up to 2017 for Germany. Both datasets retrospectively retrace educational and work histories up to the moment of the interview. We follow individuals along the first ten years in the labour market beginning with the first prolonged job (at least three months) after leaving the educational system. Not all cases have valid information for all ten years, but we ensured that everyone had been continuously observed for at least five years after LM entry. Given the focus on young people entering in a deregulated LM, we restricted our sample to those aged 15–35 who had begun working between 1970 and 2007. After a listwise missing deletion, the overall mean of valid job spells is around 9.7 (median: 10) in Italy and around 9.9 (median: 10) in Germany. Our sample is finally composed of 159,145 person-year observations for 16,405 individuals in Italy and 114,471 person-year observations for 11,602 cases in Germany.²

Individuals’ occupational achievement is operationalised using the ISEI metric score (International Socio-economic Index of Occupational Status; Ganzeboom et al., 1992) derived from the 1988 version of the International Standard Classification of Occupations (ISCO-88), which scales from 16 (lowest) to 90 (highest socioeconomic status). The main advantages of adopting the ISEI instead of income are that any intra-individual change implies an actual change of position within the occupational stratification, and it is less subject to recall bias in a retrospective setting (Härkönen et al., 2016).

² In Italy, we began with 43,429 individuals. 5,502 cases were excluded since they had been observed for less than five years. The selection of the LM entry period (1970–2007) further removed another 14,687 individuals. Then, the selection of the age at LM entry (15–35) led to the loss of another 5,948 cases. In the remaining sample, we excluded cases with missing valid information on the main variables, which included 887 cases without valid information on the class of origin. In Germany, we began with 16,151 cases. We excluded 1,089 individuals who had incomplete information on the first five years. Then, we removed 2,140 cases for the period selection and another 159 for the age selection. Finally, we left out another 1,161 cases that had missing information on class of origin, ISEI score, and a few other covariates.
We define unstable labour market starts as a time-constant dummy indicator that groups who began with a fixed-term contract that lasted for at least four months without being converted into a permanent position.\footnote{We also define unstable entrants as workers who began with a fixed-term contract that lasted less than four months without any transition to permanent employment. For instance, if a worker became unemployed in the fourth month after three months of temporary employment (first experience), they count as part of the unstable group.} Entrants with permanent contracts and those experiencing at most three months of temporary employment compose the reference (“stable”) group. Results remain robust to more-restrictive specifications, as discussed in Par. 5.5.

Class of origin is defined following an aggregated ESeC classification (Rose & Harrison, 2007) in order to minimise occupational-measurement error (Houseworth & Fisher, 2020) and by applying a dominance criterion among parents. We distinguish between i) the Service class, which is composed of managerial and professional occupations; ii) the Intermediate class, which includes small employers and high-grade white- and blue-collar workers; and finally, iii) the Working class, which includes lower-grade white- and blue-collar workers and routine occupations.

As mentioned, much of the class effect is mediated by level of educational achievement (Hällsten, 2013; Sullivan et al., 2018). To obtain the direct effect of social origins, we blocked the mediation path by including a detailed educational measurement in all estimations and by maintaining a country-based distinction in order to preserve nation-specific impacts on contractual and occupational outcomes. In Italy, we distinguish between the levels of basic (primary or no formal education), intermediate (high-school diploma), post-secondary vocational, bachelor, and master or higher. In Germany, on the other hand, we divide basic instruction, first-level vocational training, Gymnasium (Abitur), higher-level post-secondary vocational training, university of applied sciences, and finally, university or higher. Aggregated versions are employed for descriptive analyses and in order to shed light on the equalising power of tertiary education.

4.2. Analytical strategy

We begin with descriptive evidence of the temporal evolution of the risk of starting unstably across school-leaver cohorts based on major social determinants. Our concern is indeed with group-specific selection into initial contractual instability over time. The targeted nature of flexibility reforms is expected to have influenced the composition of unstable entrants. To this end, adopting school-leaver cohorts as a temporal indicator allows us to evaluate the structural and institutional conditions during the first job experience. Subsequently, we provide evidence of the relationship between initial flexibility and occupational attainment and mobility in Italy and Germany. We first describe the differences in the initial ISEI score among stable and unstable entrants over cohorts. Then, the analysis further considers medium-term mobility chances (upward vs downward vs immobility) according to initial (in)stability and over cohorts in order to document the link between flexibility and social fluidity. The initial ISEI score is compared with the score five years later, and upward and downward movements are defined as changes of at least ten percentage points after log transformation. Selected descriptive analyses are displayed in the core text, and the remaining descriptive evidence can be found in Web Appendix Section A.
As discussed in Par. 3, there is a non-random selection among those who entered the LM unstably, and some social categories can be seen to be particularly at risk. For our multivariate analysis, we therefore aim to minimise the influence of spurious confounders, which influence both assignment to initial instability and intragenerational career mobility. Propensity score matching (PSM) is applied as a weighting strategy. Individuals’ predicted probabilities of experiencing a bad start are obtained from a logistic regression that is restricted to the exact LM entrance. We control for parental social class (dominance), age upon leaving education (and its square), sex, achieved education, school-leaver cohort (and its interaction with both sex and educational attainment), and finally, regional position (also in interaction with school-leaver cohorts in order to control for the local business cycle) and nationality (available only for Germany). To match both the treated and the control sample, we adopt a kernel matching algorithm (Caliendo & Kopeinig, 2008) and thereby retain a larger number of control cases and avoid an increase in potential bias. In addition to a detailed description of the matching construction, Web Appendix Section B also evaluates the performance of the obtained weights. Overall, the observable differences (related to included antecedent confounders) among the unmatched treated and control samples almost entirely shrink to zero when weights are applied.

The study of the career development is conducted by performing a random growth-curve analysis, thereby exploiting the multilevel structure of the data. Individual temporal observations (Level 1) are nested within individuals (Level 2), which allows us to consider both time-varying and time-constant information as well as their interaction. Beginning with the matched sample, our gross model includes a three-way interaction between social origins, unstable career start, and career development (and its square). The career counter is set as a random slope to allow the coefficient to vary across individuals. To better highlight DESO dynamics, growth curves are performed by comparing LM entrants from only the Service and the Working classes. Then, we further control for sources of heterogeneous career development by including the level of education, sex, and school-leaver cohorts in interaction with the career progression. The model reports the average occupational status development for individuals with stable and unstable LM entry from different social origins, also net of the time-varying influence of some confounders included in the weights. The DESO at this point is expressed as the ISEI gap among classes of origin (both at LM entry and over the first ten years) and between stable and unstable entrants of each class of origin (see Web Appendix, section C). Our analytical interest, however, lies in the mechanisms through which social origins directly influence career mobility after initial contractual instability. To examine these mechanisms, we must exclude the portion of the effect of social origin that passes via unequal allocation into the first job in order to keep only its influence over career progression. As is well highlighted in the mobility analysis, initial occupational disparity has a deterministic mediating role, especially in socially immobile contexts, as in the Mediterranean and Continental cases (Passaretta et al., 2018). We therefore isolate the DESO mechanisms over the career by comparing the development of service- and working-class workers who counterfactually began with a similar ISEI score, which differs solely depending on initial (in)stability. To do so, we incorporate the ISEI at LM entry in interaction with career advancement and the stable/unstable start. This latter interaction

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4 We excluded individuals out of common support from the analysis. The final sample for multivariate analysis thus consists of 159,116 person-year observations for 16,402 cases (3 individuals out of common support in Italy and 11,4461 person-year for 11,601 individuals (1 out of common support) in Germany.
assures that the influence of the class of origin is expressed only in divergent mobility trajectories over the career progression. Formally, the remaining influence of the parental background is referred to as residual DESO and includes often-unobservable direct mechanisms – such as compensation or boosting – that operate after LM entry. Finally, this last model specification is replicated separately for the low-, middle-, and tertiary-educated in order to test the equalising power of tertiary education.

5. Empirical evidence

5.1. Sorting into unstable starts over cohorts and reforms

Due to the process of LM flexibilisation, the experience of initial contractual instability has become increasingly common among LM entrants (Web Appendix A, Appendix Figure A1). Germany has experienced a steeper rise in temporary employment related to the labour market reforms of the 90s. Considering the latest cohort (2000–2007), around 30% of labour market entrants have experienced job insecurity in Italy, as have more than 35% in Germany. This finding is in line with the increasing use of flexible contracts to sustain employment growth and LM adjustment in Continental and Mediterranean European Countries. Similarities in their processes of LM flexibilisation notwithstanding, stark differences between the two countries emerge when compositional factors such as the level of completed education are considered (Figure 1). The educational gradient over cohorts of LM entrants is evident and reveals contrasting compositions for the secondary labour markets in Italy and Germany.

In Italy, less-educated LM entrants have been the most at risk of instability since the early 80s and have remained so since the major reforms (of the late 90s and early 2000s), reaching around a 15% gap with the highly educated 00–07 cohort. In Germany, mainly the tertiary-educated had been exposed to temporary employment until the mid-90s, whereas the low- and mid-educated had been targeted until 1996, which further deregulated existing restrictions on newly hired employees and successful apprentices (Gebel, 2010). This process has led to much weaker compositional differences in terms of education and is evidence of the focus on the low-skilled in the recent German reforms.
The skill-biased pattern is also confirmed when considering the starting occupation defined as ISCO88 major groups (Web Appendix A, Figure A2). In Italy, low-skilled occupations (ISCO 8, 9), as well as clerical, service-, and sales workers (ISCO 4, 5) have been the main targets of the process of labour market flexibilisation. Manual-skilled jobs (ISCO 6, 7) and the top occupations (ISCO 1, 2, and 3) have also borne witness to increased exposure. In Germany, after the sharp increase of temporary employment in the early 80s, which primarily interested less-skilled groups (ISCO 8, 9), the constantly higher proportion of top-level occupations (ISCO 1, 2) came to also reflect the widespread and persistent diffusion of unstable employment as a screening device for more-desirable jobs.

5.2. Labour market instability and occupational mobility

In light of the contrasting compositions of unstable labour market entrants, we next address differences in occupational achievement between the two countries. Figure 2 reveals that in Italy, initial job insecurity is associated with less-prestigious jobs, a trend that slightly increases over education-leaver cohorts. In stark contrast, Germany shows higher-level occupational status for unstable entry jobs across cohorts, which can be due to the above-mentioned compositional effect. The process of labour market flexibilisation, however, has reduced the “flexibility premium” by also opening temporary contracts to the lower-skilled, who generally face job instability and wage/prestige penalties (Gebel, 2010; Giesecke and Groß, 2004). The positive gap indeed moves from almost 6 ISEI points in the first cohort to about 3 points in the latest cohort.
Considering differences due to compositional factors (Web Appendix A, Figure A4-A6), social origin seems to capture the strongest differences among labour market entrants, especially in Germany. The offspring of the German service class who experience instability tend to enter the labour market about 6 ISEI points higher than their stable counterparts. The advantage is smaller, albeit present, among entrants with a working-class background. This flexibility premium is much smoother if we consider education and the initial occupation, which reveals positive returns almost only for the highly educated in top jobs. In Italy, both social origins and achieved education go hand in hand with sizeable occupational disadvantages associated with a flexible entry.

Finally, we next adopt a dynamic perspective and analyse raw mobility chances five years after LM entry, a time span that allows us to include the entire balanced sample while investigating temporal and cross-country associations between flexibility and career mobility. As seen in Table 2, initial contractual instability appears to be associated with an overall greater fluidity in both national contexts. Unstable entrants move upwards and downwards over the first five years of the career to a much greater extent than do stable entrants, especially in Italy. The scarce mobility of this latter group is in line with a more-traditional entry, which requires more time in order to be promoted or move to a better job.
Table 2: Mobility tables for Italy and Germany that compare ISEI scores for the first job and five years later across cohorts of LM entrants. Row percentages.

<table>
<thead>
<tr>
<th></th>
<th>IT</th>
<th></th>
<th></th>
<th></th>
<th>DE</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Downward</td>
<td>Immobility</td>
<td>Upward</td>
<td>total</td>
<td>Downward</td>
<td>Immobility</td>
<td>Upward</td>
<td>total</td>
</tr>
<tr>
<td>70–84</td>
<td>Stable</td>
<td>3.90</td>
<td>89.43</td>
<td>6.67</td>
<td>100</td>
<td>Stable</td>
<td>8.11</td>
<td>80.16</td>
</tr>
<tr>
<td></td>
<td>Unstable</td>
<td>9.29</td>
<td>72.53</td>
<td>18.17</td>
<td>100</td>
<td>Unstable</td>
<td>10.26</td>
<td>75.66</td>
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<td>85–94</td>
<td>Stable</td>
<td>5.46</td>
<td>87.65</td>
<td>6.89</td>
<td>100</td>
<td>Stable</td>
<td>8.14</td>
<td>80.05</td>
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<tr>
<td></td>
<td>Unstable</td>
<td>14.70</td>
<td>70.08</td>
<td>15.22</td>
<td>100</td>
<td>Unstable</td>
<td>11.11</td>
<td>74.19</td>
</tr>
<tr>
<td>95–07</td>
<td>Stable</td>
<td>6.24</td>
<td>85.29</td>
<td>8.48</td>
<td>100</td>
<td>Stable</td>
<td>8.57</td>
<td>78.42</td>
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<tr>
<td></td>
<td>Unstable</td>
<td>13.13</td>
<td>65.20</td>
<td>21.67</td>
<td>100</td>
<td>Unstable</td>
<td>9.76</td>
<td>74.78</td>
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</tbody>
</table>

Notes: Upward and downward mobility are defined as a movement of at least 10 percentage points in the log-transformed ISEI distribution. Relative distributions are calculated individually for each country. Alternative and less-strict specifications (as direct comparison of absolute ISEI scores) lead to similar results.

Notably, both upward and downward mobility among stable entrants are always greater in Germany than in Italy, although increased fluidity across cohorts can also be found for those who have stable careers in the Mediterranean context. The cohort moderation then indicates that institutional reforms lead to increased mobility (especially in Italy) mainly among unstable entrants, who have experienced a decrease in their immobility rate of about 7 percentage points.

The same process cannot be verified in Germany, where overall LM fluidity appears to be scarcely affected by the diffusion of temporary forms of employment. Contractual flexibility thus appears to be a leverage mainly in the Italian case, whereas in Germany, fixed-term contracts play a different, more-integrative role.

5.3. The dynamic influence of DESO mechanisms over the career

We next test our expectations on the occupational outcomes of the “dual-DESO” interaction by focusing on the residual DESO. In so doing, we can attribute any remaining ascriptive difference to the mechanisms through which social origins directly intervene in supporting career development.

In Figure 3, we counterfactually compare the career development of LM entrants with service- and working-class origins while controlling for the ISEI score of the first job. In the Italian case, empirical evidence points to a clear compensatory advantage for the service class’s descendants. Unstable entrants with a high social background almost entirely recover their gap with their stable counterparts within the first ≈ 7 years (a growth of around 3 ISEI points). Conversely, among working-class descendants who entered the LM with a temporary position, no signals of compensation emerge, revealing the trap nature of initial career instability in Italy. In fact, despite trivial signals of upward mobility (about 1 ISEI point in 10 years, which is explained by the overall higher fluidity among unstable entrants), unstable working-class entrants never catch up with their stable counterparts.
In the German case, a different interactive dynamic is at stake. First, the high flexibility premium (of about 2 ISEI points) is clearly evident for both service- and working-class descendants. However, social-class differences are nonetheless evident: The DESO still provides an additional occupational boost to the offspring of the upper class (a growth of about 2 ISEI points), whereas working-class entrants remain de facto immobile. Figure 3 reveals that the flexibility premium in the German LM functions as a class premium that largely benefits upper-class descendants. In other words, our results show that ceteris paribus, regardless of the stability at LM entry, advantaged social origins nevertheless lead to mechanisms over the career that serve as a form of compensation (in Italy) or boosting (in Germany), which results in the reproduction of socially stratified occupational inequalities among LM entrants during their early careers.

Upon examining stable entrants (and controlling for the level of the entry job) from the service class, they always manage to increase their occupational socio-economic status, the overall rigidity of both the Italian and German labour markets notwithstanding. Stable entrants from the working class are instead subject to a “class-ceiling” effect with consequent occupational immobility.

5.4. The equalising power of tertiary education

In conclusion, we decompose the results of the previous analysis according to level of education. We test the equalising power of the college degree by splitting the sample between the low-to-medium educated (at most, upper-secondary) and the highly educated (those with any kind of tertiary degree). Based on our theoretical reflection, the DESO compensation pattern should be much more apparent among less-educated service-class descendants. However, as highly
educated individuals compete in a more-meritocratic market, they should be penalised less by initial instability, regardless of their origins (equalisation), or – in a more unequal scenario – the entrants from the service class might present additional boosting advantages.\(^5\) Overall, empirical evidence for Italy and Germany (Figure 4) converges towards an equalising effect of tertiary education, at least regarding the DESO mechanisms that operate after an unstable start. The overall educational moderation, however, leads to different contextual scenarios. Considering first the low-to-medium-educated (left panels), we can confirm the expected compensation/entrapment dynamics only for the Italian case. The DESO over the career is visible in the compensation of the flexibility penalty among Italian entrants from the upper classes (unstable entrants pass from an ISEI score of 38 to about 41, whereas stable entrants have an average ISEI score of around 41). The stable entrants from the service class also show positive deviations from the initial ISEI. Conversely, the absence of social privileges translates to a visible ceiling effect for both stable and unstable working-class entrants.

Figure 4: Residual DESO model of the predicted ISEI score over the career development in Italy and Germany – educational moderation

In Germany, we can find neither significant penalties nor premiums attached to unstable starts among the lower-educated. What we see, instead, is that social origin plays a direct and major role, regardless of the contractual conditions: Socially advantaged parents support their less-educated children over their careers, as revealed by their much-steeper upward trajectory.

\(^5\) The boosting effect might be stratified even among the tertiary-educated (bachelor vs master) (Bernardi and Ballarino, 2016; Bernardi and Gil-Hernández, 2020; Torche, 2011). Unfortunately, low Ns / a lack of appropriate information impede a finer-grade investigation.
Finally, among the tertiary-educated (right panels), the direct effect of social origins over the career is no longer relevant as it is for the less-educated, especially in Germany. In Italy, we still detect signs of initial upward mobility among unstable entrants from the service class who exploit their social origin to catch up quickly to their stable counterparts (within the first three years). The trend for individuals of working-class origin is less straightforward and the estimations more unstable, which points to their lower absolute representation among the tertiary-educated.

The role of initial LM flexibility among the highly educated displays further contextual differences. In Italy, no significant disparities emerge in the long run between the career development of stable and unstable LM entrants. While attending university in Italy is clearly a socially stratified privilege (Argentin & Triventi, 2011; Breen et al., 2009), earning a laurea does help in overcoming institutionally driven inequalities, even among the less-socially advantaged. In the more-egalitarian German system, a persistent flexibility premium (about 3 ISEI points) among the tertiary-educated is present, regardless of their class of origin, which reveals that jobs that require initial screening (and therefore that use flexible contracts) are generally associated with a higher socio-economic status and greater rewards in the highly skilled German LM.

5.5. Robustness checks

We finally test the sensitivity of our results, both core models, and the educational moderation by performing a series of robustness checks, as presented in Web Appendix, Section D. First, we assess the validity of our treatment variable – the unstable start – according to two alternative (and stricter) specifications. The first alternative imposes a stricter form of initial contractual instability by restricting the treatment condition to those remaining with fixed-term contracts (i.e. contracts that are not converted into permanent contracts) throughout the entire first year (twelve months) in the LM. The control group therefore comprises entrants with permanent contracts and entrants with a fixed-term contract that has been converted (or entrants who have found a stable job) before the end of the first year. The second alternative, on the other hand, draws on the core-treatment definition (starting and remaining for at least four months in temporary employment) but limits the comparison to only stable entrants. Thus, we exclude flexible entrants who moved to permanent contracts in the first three months. Matching weights are re-estimated for each alternative specification. The results remain unaltered by these stricter specifications, thereby validating the results presented above.

Second, we test the Standard Occupational Prestige Scale (SIOPS) – a metric measure of occupational prestige – as an alternative dependent variable. SIOPS was developed as an instrument for cross-national comparative research (Ganzeboom & Treiman, 1996). Despite its widespread adoption, its validity has been heavily debated in the literature (Hällsten, 2020; Lynn & Ellerbach, 2017) both in terms of measurement errors and correlation with other SES dimensions (education, income, and wealth). Nevertheless, the strong correlation between ISEI and SIOPS led to virtually identical results, as expected. Finally, income- and wage measures can be alternative mobility measures yet are available only for Germany and for overly limited cases.
to perform additional checks. Even so, monetary scales would not be a better option. Compared with ISEI, income and wages are much more volatile (Jenkins & Van Kerm, 2009) and display lower intergenerational significance (Hällsten, 2020). More substantially, income is an epiphenomenon of structural cleavages and inequalities (Connelly et al., 2016) and thus misses major and consequential dimensions of social stratification (Goldthorpe, 2012).

6. Discussion and Conclusions

We investigated the extent to which institutionally originated inequalities (unstable entry into the secondary labour market) interact with persistent ascriptive disparities, namely the direct effect of social origin. We focused particularly on Italy and Germany as their differently dualised labour markets are suitable cases for grasping the mechanisms by which advantaged social origins react to bad LM starts, the penalties for which are particularly persistent in these contexts (Barbieri et al., 2016; Gebel & Giesecke, 2016). Following the literature on social mobility, we found that the parental aversion to intergenerational downward mobility and the resulting social demotion – well-illustrated in the stratification literature (Breen & Goldthorpe, 1997) – are also at stake when considering initial contractual instability, especially if it is associated with lower initial socio-economic positions.

We followed young Italian and German workers who had entered the labour market between 1970 and 2007 and were aged 15–35 by adopting a dynamic perspective in order to study occupational mobility over the first ten years of the LM career. In greater detail, we sought to uncover the direct effect of social origins over the career development, and particularly as a reaction to a disadvantaged entry – the residual DESO. To this end, we compared stable and unstable entrants who had counterfactually begun their careers with similar socio-economic statuses and differed only in terms of their social origins.

Striking contextual differences emerged regarding the implications of unstable initial employment as well as its relationship with ascriptive factors, which points to the centrality of institutional features such as the educational and occupational systems. From our analyses, Italy and Germany can be seen to differ in the average composition, socio-economic status, and overall social fluidity of flexible initial employment as well as in terms of the direct influence that social origin exerts on the further career development.

In line with previous literature, Italian instability is associated with less-skilled LM entrants, and the flexibilisation process exacerbates the precariousness and penalties of the secondary labour market. We particularly documented how the DESO is also crucial in reproducing an inequality of opportunities in relation to flexible employment. Upper-class descendants demonstrate their compensatory advantages by buffering initial labour market failures (i.e. the occupational penalty resulting from starting flexibly). This finding is strikingly evident when lower- and middle-educated LM entrants are considered: In their case, the absence of ascriptive privileges prevents upward mobility throughout the career, thereby confining unstable entrants to less-prestigious and less-rewarding jobs. In Germany, on the other hand, we found no signs of occupational penalties related to an unstable LM start: Flexible jobs in Germany seem far from being representative of “bad starts”. Despite reports in the literature that wage- and security penalties are associated with flexible beginnings (Gebel, 2010; Giesecke & Groß, 2004; Scherer, 2004), initial LM instability in Germany is generally concentrated among highly educated workers (even though recent
reforms have also marked an increase among low-skilled workers) and is associated with a significant occupational premium, as predicted by the integration scenario. Nevertheless, the DESO contributed to explaining how inequalities are perpetuated, even when there are no detectable initial LM penalties. Indeed, low-educated entrants from the service class manage to move upwards during their career progression.

A major finding common to both countries concerns the equalising role of tertiary education, at least regarding our interactive mechanisms. Advantaged social origins generally result in slightly better initial job allocation among degree-holders; however, we did not find any significant DESO over the career. Service- and working-class entrants present similar patterns along the first ten years. Furthermore, tertiary education entirely reduces the flexibility penalty in the Italian context (which is potentially due to a positive self-selection in terms of above-average motivation and (non-) cognitive skills) of working-class entrants who achieve tertiary education (Bernardi & Ballarino, 2016). Conversely, in Germany, initial LM flexibility serves as a gateway to more-prestigious jobs in the highly skilled LM. All in all, graduating seems to foster greater equality of opportunities during the early stages of the working career.

In conclusion, flexibility dynamics clearly matter in terms of both inter- and intragenerational mobility. Flexible employment at LM entry in and of itself may be a driver of higher LM fluidity, yet it may also exacerbate ascriptive inequalities, especially among less-educated workers. However, this finding does not represent an inexorable end because a flexible LM entry may serve either as a trap or as a stepping-stone towards further career development. In Southern Europe, where a secondary LM entry is usually a bad start, the unstable entry is experienced as a class failure by upper-class families, who fight back by “lifting” their members, while working-class secondary-LM entrants remain trapped in the peripheral market. In this situation, institutionally originated inequality in the LM combines with ascriptive (class-based) disparity, thereby reinforcing class-ceiling effects and adding to the already-high level of social inequality.
References


Karlon, K. B., & Birkelund, J. F. (2019). Education as a mediator of the association between origins and
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Appendix

Appendix section A: Descriptive analysis

Appendix Figure A1: Evolution of flexible labour market starts over school-leavers cohorts in Italy and Germany

Source: Multipurpose Household Social Survey waves 2009 & 2016; NEPS starting cohort. (Cross-sectional sample restriction)
Unstable entry (in IT & DE) defined as having entered and then experienced at least 4 months of temporary employment
Appendix Figure A2: Evolution of flexible labour market starts over cohorts in Italy and Germany – occupations

Appendix Figure A3: Evolution of flexible labour market starts over cohorts in Italy and Germany – class of origins
Appendix Figure A4: Evolution of the occupational socioeconomic status at the LM entry associated to unstable labour market starts over school-leavers cohorts in Italy and Germany – class of origins moderation

Appendix Figure A5: Evolution of the occupational socioeconomic status at the LM entry associated to unstable labour market starts over school-leavers cohorts in Italy and Germany – educational moderation
Appendix Figure A6: Evolution of the occupational socioeconomic status at the LM entry associated to unstable labour market starts over school-leavers cohorts in Italy and Germany – occupational moderation

Appendix section B: Propensity score matching

In performing the Propensity Score Matching, we restricted our sample to the exact beginning of the labour market career. Through logistic regression, we predicted individual level propensity scores. In the model, we included parental highest social class, school leaver cohorts, age at leaving education (and its square), sex, attained education, regions and nationality (the latter was available only in Germany). We tried different model specification, and the one including also the interaction between school-leaver cohorts and i) sex, ii) achieved education, iii) regional groups reaches the highest predictive power in both countries. Such interactions aim to leave explanatory variables free to have specific impacts at different periods. The interaction between regions and periods is moreover proxy for contextual business cycles, unemployment rate and other macro factors that could influence LM opportunities. Appendix Tables B1 and B2 report the stepwise model construction for both Italy and Germany. Appendix Figure B1 and B2 show the distribution of the propensity score among the two comparison-groups. In it, it is possible to see that, in Italy, the bulk of the probability is generally distributed around 10% and 40% for both groups, whereas it spaces from 5% to around 60% in Germany. One can also notice that the German control group is more concentrated on the left part of the distribution.

We then performed the matching applying a kernel-based algorithm. Differently from one-to-one or nearest-neighbourhood matching strategies, which seek one or more comparable controls with the closest propensity score, the kernel options allow to exploit the distribution of the whole propensity score and find comparable cases within a normal distribution created around a specific
score, which size is given by a specified bandwidth. The algorithm assigns weights to the control cases according to how close their propensity scores are. One perk of the distributional-based method is to reduce models’ bias (given the proportional distribution of weights that rewards closer cases) without necessarily involving a trade-off with precision and model efficiency (keeping more cases than other matching strategies) (Caliendo & Kopeinig, 2008⁷). In fact, stricter matching specifications that lead to maximise bias reduction at the cost of dropping a higher number of cases may end up creating additional imbalance among treated and control samples (King & Nielsen, 2019⁸). We anyway aim to maximise the bias reduction across the observable characteristics by defining a more restrictive bandwidth. No clear-cut indications about the size of the bandwidth are generally provided, and literature conservatively remains fixed with a value of 0.06 (Heckman et al., 1997⁹) to maximise the trade-off between efficiency (cases retained) and bias reduction. We calculate the bandwidth as the standard deviation of the propensity score divided by ten, a practise common in identifying caliper in radius matching. Alternative bandwidths do not lead to substantially different results. Matching performance is tested considering the weighted distribution of the propensity score (Appendix Figure B1 & B2) and the remaining standardised bias (and its variance) (Rosenbaum & Rubin, 1985¹⁰) according to the observable characteristics (Appendix Figure B3 & B4). In Italy, the standardised mean bias in the raw data is about 6.1 (median: 3.6) and after the matching it reaches a mean value of 0.2 (median: 0.1). Similarly, the mean bias in Germany goes from 13.1 (median: 8.2) to 0.9 (median: 0.7), when matching weights are applied. Notably, Germany shows a bias in the raw data that is more than the double of the Italian one. Nevertheless, even if the remaining standardised bias is higher in Germany, the matching algorithm proved to be effective in reducing almost entirely the distortions between treated and control cases.

## Appendix Table B1: Stepwise models to predict individual propensity score of starting unstably - Italy

<table>
<thead>
<tr>
<th>Class of origins (ref: ESEC 1-2)</th>
<th>M1 OR (SE)</th>
<th>M2 OR (SE)</th>
<th>M3 OR (SE)</th>
<th>M4 OR (SE)</th>
</tr>
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<tbody>
<tr>
<td>ESEC 3-4-5-6</td>
<td>0.925 (0.05)</td>
<td>0.927 (0.05)</td>
<td>0.920 (0.05)</td>
<td>0.919 (0.05)</td>
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<tr>
<td>ESEC 7-8-9</td>
<td>1.026 (0.06)</td>
<td>1.028 (0.06)</td>
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<tr>
<th>School leavers cohort (ref: 70-84)</th>
<th>M1 OR (SE)</th>
<th>M2 OR (SE)</th>
<th>M3 OR (SE)</th>
<th>M4 OR (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-1994</td>
<td>1.387*** (0.06)</td>
<td>1.401*** (0.09)</td>
<td>1.718*** (0.21)</td>
<td>1.583*** (0.24)</td>
</tr>
<tr>
<td>1995-2007</td>
<td>1.206*** (0.09)</td>
<td>1.998*** (0.14)</td>
<td>2.497*** (0.42)</td>
<td>2.559*** (0.49)</td>
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<tr>
<td>Age left education</td>
<td>0.950*** (0.01)</td>
<td>0.951*** (0.01)</td>
<td>0.951*** (0.01)</td>
<td>0.950*** (0.01)</td>
</tr>
<tr>
<td>Age (2) left education</td>
<td>1.003* (0.00)</td>
<td>1.003* (0.00)</td>
<td>1.003** (0.00)</td>
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<table>
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<tr>
<th>Sex (ref: male)</th>
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<th>M2 OR (SE)</th>
<th>M3 OR (SE)</th>
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<tbody>
<tr>
<td>Female 85-94</td>
<td>0.979 (0.08)</td>
<td>0.840 (0.08)</td>
<td>0.875 (0.08)</td>
<td>0.861 (0.08)</td>
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<tr>
<td>Female 95-07</td>
<td>1.467*** (0.06)</td>
<td>1.557*** (0.10)</td>
<td>1.536*** (0.10)</td>
<td>1.548*** (0.10)</td>
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<tr>
<th>Education (ref: Basic)</th>
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<tr>
<td>Intermediate 85-94</td>
<td>0.933 (0.07)</td>
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<td>1.018 (0.09)</td>
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<td>0.987 (0.46)</td>
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<td>0.855 (0.43)</td>
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<td>0.915 (0.43)</td>
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<td>Bachelor 85-94</td>
<td>0.914 (0.14)</td>
<td>0.914 (0.14)</td>
<td>1.264 (0.34)</td>
<td>1.275 (0.35)</td>
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<td>Bachelor 95-07</td>
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<th>Macro-regions (ref: North-West)</th>
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<td>1.243*** (0.07)</td>
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<td>1.202*** (0.07)</td>
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<td>1.038 (0.11)</td>
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<td>1.206*** (0.07)</td>
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<td>North-Est IT 95-07</td>
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<td>1.271 (0.19)</td>
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<td>Central IT 95-07</td>
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<td>0.879 (0.13)</td>
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<td>0.622* (0.12)</td>
<td>0.622* (0.12)</td>
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<tr>
<td>Islands IT 95-07</td>
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<td>0.879 (0.13)</td>
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<td>0.622* (0.12)</td>
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<tr>
<th>Wave (ref: 2009)</th>
<th>M1 OR (SE)</th>
<th>M2 OR (SE)</th>
<th>M3 OR (SE)</th>
<th>M4 OR (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1.169*** (0.05)</td>
<td>1.170*** (0.05)</td>
<td>1.167*** (0.05)</td>
<td>1.172*** (0.05)</td>
</tr>
</tbody>
</table>

| N Individuals | 16405 | 16405 | 16405 | 16405 |

Coefficients report Odds Ratios (OR=1: no differences in the estimated chances) * p<.05, ** p<.01, *** p<.001
## Appendix Table B2: Stepwise models to predict individual propensity score of starting unstably - Germany

<table>
<thead>
<tr>
<th>Germany</th>
<th>M1 OR</th>
<th>M2 OR</th>
<th>M3 OR</th>
<th>M4 OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>(SE)</td>
<td>(SE)</td>
<td>(SE)</td>
<td>(SE)</td>
</tr>
<tr>
<td>Class of origins (ESEC 1-2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESEC 3-4-5-6</td>
<td>0.843*</td>
<td>(0.06)</td>
<td>0.842*</td>
<td>(0.06)</td>
</tr>
<tr>
<td>ESEC 7-8-9</td>
<td>0.917</td>
<td>(0.06)</td>
<td>0.916</td>
<td>(0.06)</td>
</tr>
<tr>
<td>School leavers cohort</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ref: 70-84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985-1994</td>
<td>1.559***</td>
<td>(0.10)</td>
<td>1.619***</td>
<td>(0.16)</td>
</tr>
<tr>
<td>1995-2007</td>
<td>3.853***</td>
<td>(0.26)</td>
<td>3.765***</td>
<td>(0.36)</td>
</tr>
<tr>
<td>Age left education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.011</td>
<td>(0.01)</td>
<td>1.011</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Age (2) left education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.997*</td>
<td>(0.00)</td>
<td>0.997*</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Sex (ref: male)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.163**</td>
<td>(0.06)</td>
<td>1.170</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Female: 85-94</td>
<td>0.934</td>
<td>(0.12)</td>
<td>0.948</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Female: 95-07</td>
<td>1.047</td>
<td>(0.13)</td>
<td>1.055</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Education (ref: Basic)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational 1st lvl</td>
<td>0.523***</td>
<td>(0.05)</td>
<td>0.522***</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Abitur</td>
<td>0.698***</td>
<td>(0.07)</td>
<td>0.697***</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Vocational 2nd lvl</td>
<td>0.676*</td>
<td>(0.11)</td>
<td>0.676*</td>
<td>(0.11)</td>
</tr>
<tr>
<td>UAS</td>
<td>0.866</td>
<td>(0.13)</td>
<td>0.865</td>
<td>(0.13)</td>
</tr>
<tr>
<td>University</td>
<td>2.017***</td>
<td>(0.27)</td>
<td>2.013***</td>
<td>(0.27)</td>
</tr>
<tr>
<td>Voc 1st lvl: 85-94</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.724*</td>
<td>(0.41)</td>
<td>1.786*</td>
<td>(0.42)</td>
</tr>
<tr>
<td>Voc 1st lvl: 95-07</td>
<td>1.514</td>
<td>(0.34)</td>
<td>1.514</td>
<td>(0.34)</td>
</tr>
<tr>
<td>Abitur: 95-07</td>
<td>1.062</td>
<td>(0.22)</td>
<td>0.854</td>
<td>(0.18)</td>
</tr>
<tr>
<td>Voc 2nd lvl: 85-94</td>
<td>0.575</td>
<td>(0.22)</td>
<td>0.523</td>
<td>(0.21)</td>
</tr>
<tr>
<td>Voc 2nd lvl: 95-07</td>
<td>0.882</td>
<td>(0.33)</td>
<td>0.820</td>
<td>(0.30)</td>
</tr>
<tr>
<td>UAS: 85-94</td>
<td>0.739</td>
<td>(0.22)</td>
<td>0.659</td>
<td>(0.20)</td>
</tr>
<tr>
<td>UAS: 95-07</td>
<td>0.462**</td>
<td>(0.13)</td>
<td>0.406**</td>
<td>(0.11)</td>
</tr>
<tr>
<td>University: 85-94</td>
<td>0.560**</td>
<td>(0.12)</td>
<td>0.516**</td>
<td>(0.12)</td>
</tr>
<tr>
<td>University: 95-07</td>
<td>0.262***</td>
<td>(0.06)</td>
<td>0.241***</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Macro-regions (West DE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East DE</td>
<td>0.533***</td>
<td>(0.04)</td>
<td>0.534***</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Abroad DE</td>
<td>0.778*</td>
<td>(0.08)</td>
<td>0.777*</td>
<td>(0.08)</td>
</tr>
<tr>
<td>East DE: 85-94</td>
<td></td>
<td></td>
<td>2.294***</td>
<td>(0.49)</td>
</tr>
<tr>
<td>East DE: 95-07</td>
<td></td>
<td></td>
<td>4.927***</td>
<td>(0.95)</td>
</tr>
<tr>
<td>Abroad DE: 85-94</td>
<td></td>
<td></td>
<td>1.990**</td>
<td>(0.49)</td>
</tr>
<tr>
<td>Abroad DE: 95-07</td>
<td></td>
<td></td>
<td>1.723*</td>
<td>(0.41)</td>
</tr>
<tr>
<td>Native German (ref: yes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-native</td>
<td>0.790</td>
<td>(0.13)</td>
<td>0.791</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Wave (ref: 2007/2008)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009/2010</td>
<td>0.968</td>
<td>(0.07)</td>
<td>0.969</td>
<td>(0.07)</td>
</tr>
<tr>
<td>2010/2011</td>
<td>0.510**</td>
<td>(0.13)</td>
<td>0.512**</td>
<td>(0.13)</td>
</tr>
<tr>
<td>2011/2012</td>
<td>0.932</td>
<td>(0.06)</td>
<td>0.931</td>
<td>(0.06)</td>
</tr>
<tr>
<td>2012/2013</td>
<td>0.441***</td>
<td>(0.11)</td>
<td>0.441***</td>
<td>(0.11)</td>
</tr>
<tr>
<td>2013/2014</td>
<td>0.878</td>
<td>(0.22)</td>
<td>0.878</td>
<td>(0.22)</td>
</tr>
<tr>
<td>2014/2015</td>
<td>0.464*</td>
<td>(0.14)</td>
<td>0.465*</td>
<td>(0.15)</td>
</tr>
<tr>
<td>2015/2016</td>
<td>0.420**</td>
<td>(0.14)</td>
<td>0.420**</td>
<td>(0.14)</td>
</tr>
<tr>
<td>2016/2017</td>
<td>0.402*</td>
<td>(0.13)</td>
<td>0.403**</td>
<td>(0.13)</td>
</tr>
<tr>
<td>2017/2018</td>
<td>0.429***</td>
<td>(0.06)</td>
<td>0.429***</td>
<td>(0.06)</td>
</tr>
</tbody>
</table>

N Individuals: 11602

Coefficients report Odds Ratios (OR=1: no differences in the estimated chances) * p<.05, ** p<.01, *** p<.001
Appendix Figure B1: Propensity score and common support in Italy

Appendix Figure B2: Propensity score and common support in Germany
Appendix Figure B3: Comparison of standardised bias and variance of residuals before/after matching in Italy

Appendix Figure B4: Comparison of standardised bias and variance of residuals before/after matching in Germany
Appendix section C: Multivariate models

The descriptive analysis pointed to two major patterns: unstable entry is associated with lower ISEI for both service and working classes in Italy, whereas initial instability in Germany is a steppingstone for more prestigious jobs primarily among highly skilled. Interestingly, after the correction of the selection into unstable start via matching (Appendix Figure C1 and C2) – thus accounting for the influence of education and other factors, the German flexibility premium remains valid only for entrants from the service class. These patterns are also confirmed from a dynamic perspective. Appendix Figure C3 presents the predicted ISEI for stable and unstable entrants from upper and lower social backgrounds. The models account for spurious selection into unstable LM entry via the matching, and control for the sources of career heterogeneity such as sex, cohort, and educational specific career development.

In Italy, stable entrants have higher occupational prestige, and their socioeconomic status remains quite stable over time, thus confirming the intra-class immobility of the Italian case. However, they show a persistent occupational advantage in comparison with unstable entrants. These latter show little signs of convergence over time (1 ISEI point for high class or origin and around 2 points for working class origins), yet never reaching the stable counterparts. In Germany, there is overall higher intragenerational occupational mobility over the first ten years, regardless of origins and stability at the entrance. While no differences based on LM instability emerge within working class entrants, it is confirmed that initial instability is a steppingstone for better jobs among those from a higher background (an advantage of ≈3 ISEI points). In both countries, the gap between high and low social backgrounds (net of selection and career heterogeneity) never closes in the considered ten years, thus highlighting the temporal persistence of overall DESO. These models point the overall career immobility of rigid markets, in which differences emerge at the LM entry and are driven by both ascriptive and contractual features.
Appendix Figure C1: Gross and matched models on the predicted ISEI over the career development in Italy

Source: Multipurpose Household Social Survey waves 2009 & 2016

Appendix Figure C2: Gross and matched models on the predicted ISEI over the career development in Germany

Source: NEPS starting cohort6
Appendix Figure C3: DESO on the predicted ISEI score over the career development in Italy and Germany – controlling for sources of career heterogeneity

Source: Multipurpose Household Social Surve waves 2009 & 2016; NEPS starting cohort6
Appendix section D: Robustness checks

Appendix Figure D1: Residual deso model for Italy (figure 3 in the core text) according to different treatment and outcome specifications

Appendix Figure D2: Residual deso model for Germany (figure 3 in the core text) according to different treatment and outcome specifications

Notes: Blue lines (and circles) indicate stable entrants; red lines (and squares) indicate unstable entrants. The top left panel reports the model as specified in the core text. Top right panel (a) defines the treatment condition (unstable entry) as starting flexibly and do not reach a permanent contract during the first year in the LM. Bottom left panel (b) builds on the core treatment definition (first 4 months as unstable), but the control group is composed only by LM entrants with a permanent contract. Bottom right panel (c) adopts SIOPS as outcome variable instead of ISEI. In this last model, we controlled for the SIOPS score at the LM entry to construct the residual DESO model.
Notes: Blue lines (and circles) indicate stable entrants; red lines (and squares) indicate unstable entrants. The top left panel reports the model as specified in the core text. Top right panel (a) defines the treatment condition (unstable entry) as starting flexibly and do not reach a permanent contract for during the first year in the LM. Bottom left panel (b) builds on the core treatment definition (first 4 months as unstable), but the control group is composed only by LM entrants with a permanent contract. Bottom right panel (c) adopts SIOPS as outcome variable instead of ISEI. In this last model, we controlled for the SIOPS score at the LM entry to construct the residual DESO model.

Appendix Figure D3: Educational moderation of residual deso model for Italy (figure 4 in the core text) according to different treatment and outcome specifications
Notes: Blue lines (and circles) indicate stable entrants; red lines (and squares) indicate unstable entrants. The top left panel reports the model as specified in the core text. Top right panel (a) defines the treatment condition (unstable entry) as starting flexibly and do not reach a permanent contract for during the first year in the LM. Bottom left panel (b) builds on the core treatment definition (first 4 months as unstable), but the control group is composed only by LM entrants with a permanent contract. Bottom right panel (c) adopts SIOPS as outcome variable instead of ISEI. In this last model, we controlled for the SIOPS score at the LM entry to construct the residual DESO model.

Appendix Figure D4: Educational moderation of residual deso model for Germany (figure 4 in the core text) according to different treatment and outcome specifications
Notes: Blue lines (and circles) indicate stable entrants; red lines (and squares) indicate unstable entrants. The top left panel reports the model as specified in the core text. Top right panel (a) defines the treatment condition (unstable entry) as starting flexibly and do not reach a permanent contract for during the first year in the LM. Bottom left panel (b) builds on the core treatment definition (first 4 months as unstable), but the control group is composed only by LM entrants with a permanent contract. Bottom right panel (c) adopts SIOPS as outcome variable instead of ISEI. In this last model, we controlled for the SIOPS score at the LM entry to construct the residual DESO model.