



Social origin and women's occupational careers. The role of parenthood in shaping social inequality among Italian women

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ABSTRACT

This paper studies in longitudinal perspective the direct effect of social origin (DESO) on the careers of women in Italy, focusing on the role of motherhood in shaping the DESO and its pattern over the life course. Career outcomes are seen in terms of employment interruptions and of occupational status. First, the paper analyzes when the DESO appears, and how it evolves over the occupational career and the life course. Second, it investigates whether and how motherhood shapes the magnitude and trend over the career of the DESO. Results, based on growth curve models, show that the DESO in occupational status already appears at first job, and then slightly changes over the life course, whereas the social origin gap in the probability of career breaks is small in the first years after labour market entry and then increases. Parenthood does not help to explain the DESO because women from low social origin are more likely to have children than women from high social origin. Rather, it contributes to the increase of the DESO over the life course because of different career trajectories after motherhood, with higher risks to leave employment among women from the lower classes and (slightly) higher occupational premia among women from the service class.

1. Introduction

This paper studies in longitudinal perspective, by means of growth curve models, the direct effect of social origin (DESO) on women's occupational attainment in Italy, specifically focusing on the role of motherhood in shaping the pattern of the DESO over the life course. It then contributes to the literature by creating a bridge between studies on social stratification, focused on the impact of social origins over occupational careers, and research in social demography, focused on the impact of motherhood on the life course of women.

Indeed, research on social stratification and mobility has consistently shown that family background is substantially associated to occupational achievement, even when education is controlled for (Blau & Duncan, 1967; Erikson & Jonsson, 1998; Breen & Goldthorpe, 2001; Bernardi & Ballarino, 2016). Thanks to the greater availability of panel data, a recent wave of research has provided further evidence of the direct effect of social origins on occupational achievement, observing the whole process of career development (Barone et al., 2011; Gugushvili et al., 2017; Passaretta et al., 2018), which for decades had been treated as a 'black box' (Barone & Schizzerotto, 2011).

However, this literature has not yet fully focused on women, and

longitudinal studies on the careers of women are still scarce (Härkönen et al., 2016; Lersch et al., 2020; Cantalini, 2022). In fact, when observing women's careers, family events such as parenthood are crucial and should be fully integrated into the theoretical and empirical framework. On the one hand, previous research has revealed a significant gender difference in the association between parenthood and subsequent careers (Gibb et al., 2014; Kleven et al., 2019), which varies considerably across countries due to differing social norms and policies in the family and labor market spheres (Harkness & Waldfogel, 2003; Aisenbrey & Fasang, 2017). On the other hand, not only does the birth of a child significantly impact women's career paths and gender inequality therein (see Cantalini, 2020 for a review), but it can also have broader effects on social inequalities. For instance, the timing and propensity of motherhood may vary depending on one's socio-economic characteristics and family background (Bröns et al., 2017), while the penalties (and premia) associated with motherhood may differ across social groups (England et al., 2016).

Therefore, the objective of this paper is to examine the relationship between social background and career outcomes – net of education – for Italian women, taking into account the crucial role of motherhood. First, the paper aims at analyzing when the DESO appears, and how it evolves

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over the occupational career and the life course. Does the penalty/advantage it involves get smaller or larger over time? Second, it aims at investigating whether and how motherhood shapes the magnitude and trend over the career of the DESO. Does the role of motherhood on the DESO depend on different propensities towards motherhood across social origins, or on different motherhood effects across social origins?

While our study focuses on a specific case study – Italy – which is characterized by a high level of intergenerational occupational status persistence (Bernardi & Ballarino, 2016) and significant gender inequalities following motherhood (Cantalini, 2020), our aim is to advance our theoretical understanding of social inequality by explicitly highlighting the role of motherhood as a key factor potentially driving inequality among women based on social origin. This dimension has been largely overlooked in previous research, and our study seeks to address this gap by exploring the relationship between social background, motherhood and career outcomes for Italian women.

2. The DESO and the family

2.1. The DESO over the life course

According to the Origin-Education-Destination triangle (Blau & Duncan, 1967), extensively used by social stratification scholars to study the intergenerational reproduction of social inequalities, social origins (i.e., social class or education of the parents) can affect social destinations (i.e., individual social class) both *indirectly*, via the inequality of educational opportunities and the occupational returns to education, and *directly*, net of own achieved education. This work focuses on the latter association, often labelled as DESO (Direct Effect of Social Origin; cfr. Bernardi & Ballarino, 2016). While for long the literature on the DESO has used cross-sectional data, recently the development of analytical techniques and the availability of panel datasets have allowed researchers to perform dynamic analyses of the intergenerational transmission of status (e.g., Manzoni et al., 2014; Passaretta et al., 2018; Ballarino, Cantalini, & Panichella, 2021), enabling them to get a more detailed understanding of the way such processes unfold.

A finding consistent over studies is that the DESO emerges already at the beginning of the career, as most of the occupational advantage provided by a good family background over and above education appears at labor market entry (Manzoni et al., 2014; Ballarino et al., 2021). While this finding can be taken for established, it is less clear how the DESO evolves later, over the career. In general, three possible patterns can be imagined. The first is a pattern of *stability*: in this case, differences in occupational outcomes associated to the family of origin remain the same over the career, thus confirming Blau and Duncan's (1967) path-breaking study, according to which the magnitude of the association between social origin and the first occupation, conditional on education, is similar to the equivalent association with the last observed occupation. In substantive terms, this would mean that the degree of meritocracy (more precisely, of *non-meritocracy*) characterizing the process of job allocation at labor market entry is more or less equivalent to the degree of meritocracy characterizing the career process.

The second pattern could involve a *reduction* of the DESO over the career. In this case, the process of first job allocation would be less meritocratic than the career process, because employers are able to observe the actual productivity of their employees only at the workplace. In this way, the weight of ascriptive mechanisms favouring those with a better family background at job entry would be rebalanced over time, with a pattern of compensation favouring those with a weaker family background. Referring to the mechanisms producing the DESO (Erikson & Jonsson, 1998; Bernardi & Ballarino, 2016; Erola & Kilpi-Jakonen, 2017), this could mean that the mechanisms related to the purposive *investment* on the part of the family of origin in order to favour the labor market entry of their offspring (e.g., mobilization of family networks providing information or enhancing favoritism) are more important than the mechanisms related to non-purposive

endowment, such as the familiar transmission of skills increasing productivity over the life course or the advantage in motivation related to fear of social demotion.

Finally, a third pattern could concern an *increase* of the DESO over the career. This would mean that ascriptive mechanisms related to family background play a stronger role over the career than in the first job allocation. This scenario might be seen from two complementary perspectives. From the point of view of the 'winners', it could be based on a kind of Matthew effect (Merton, 1968), by which organizational early success begets later success. Since the actual productivity of individual workers is hardly observable, previous success is taken as a signal of their ability and contribution to organizational performance, and employers would highly value this signal for their decisions concerning promotions and career advancement, according to the so-called 'tournament model' of careers (Rosenbaum, 1979; Lazear & Rosen, 1981). From the point of view of the 'losers', this pattern would derive from some type of 'entrapment' in their starting position, which might be explained by the same mechanism outlined above, but acting the other way round: in absence of clearly observable indicators of ability, lack of previous success might be taken as an indicator of weak performance. This would be still a Matthew effect, but in the sense of the second part of Jesus' phrase: from those who have not, it will be taken.¹

2.2. The role of motherhood on the DESO

As anticipated above, research on the direct effect of family of origin over the career has yet to pay adequate attention to the relevance of motherhood. In fact, the study of the life course and of the occupational careers of women in terms of social stratification requires considering a number of mechanisms related to family dynamics and parenthood. Research on family events, most notably on parenthood, has shown that the birth of a child has no major effects for what men are concerned, while it has a substantial impact on the career of women (Kleven et al., 2019). This is related to the gendered division of work within the family, so that most of the increase of the household chores related to parenthood falls on the shoulder of women, who are likely to exit the labour market or to reduce their working hours, and then their career prospects, when they become mothers.

In general, the careers of women appear to be penalised by the birth of a child, not only in terms of occupational status (Abendroth et al., 2014; Härkönen et al., 2016), but also in terms of labor market participation (Harkness & Waldfogel, 2003), with the penalization in the latter domain appearing to be relatively high in Italy (Pacelli et al., 2013; Cantalini, 2020). For instance, the reduction in female labor supply following parenthood – which can be attributed to various factors such as a lack of affordable childcare services or part-time employment opportunities (Del Boca & Sauer, 2009), unequal uptake of parental leave (Sundström & Duvander, 2002; Ma et al., 2020), and prevailing gender ideologies related to work-family balance (McDonald, 2000) – can also affect women's occupational attainment. Interruptions in one's career can lead to a loss of experience, seniority, and skill depreciation, increasing the likelihood of career stagnation for women (Abendroth et al., 2014). Additionally, after childbirth, women may choose to switch to 'mother-friendly' jobs that provide desirable features such as flexible hours and a convenient location near their homes, which may compensate for their lower prestige (Budig & England, 2001; Bygren &

¹ It is worth noting that the three patterns we described are intended to capture the general variation in the DESO over one's career, without necessarily assuming monotonicity. Of course, they can combine to each other, resulting in a wide variety of possible patterns. For example, the DESO may increase at the beginning of one's career and then stabilize after reaching occupational maturity. Therefore, the three patterns we presented can be considered as ideal-typical models that simplify the intricate and diverse range of patterns in the DESO over the career.

Gähler, 2012). Furthermore, long career interruptions can lead employers to view female workers – particularly those with children – less favorably, making them more likely to be assigned to less prestigious jobs (Correll et al., 2007).

While it is well established that parenthood has a substantial effect on gender inequality, there are at least two possible groups of reasons why it might also impact on inequalities related to social origins (Cantalini, 2022) and thus shape the DESO among women. First, the timing and propensities of motherhood might differ according to social background (Bröns et al., 2017; Cantalini, 2020): if women belonging to the more disadvantaged social strata are more likely to have children and to have them relatively early over their life course, this difference in reproductive behavior might turn into an occupational disadvantage, thus increasing the gap compared to women from the more advantaged strata. In technical terms, in this way motherhood acts between social origins and destination as a *mediation effect*: the association between social origin and destination is partly *mediated* by motherhood.

Second, motherhood penalties and/or premia can change across social strata (England et al., 2016). If motherhood is more penalizing for women from the more disadvantaged strata, then the initial occupational gaps with respect to those more advantaged can increase over the life course. In this case, there is technically an *interaction effect* between social origin, motherhood and occupational destinations, so that the association between motherhood and destination changes *depending on* social origin.

On the one side, there are indeed differences in fertility behaviors according to the family background, as women with a high-status origin tend to have less children than their low-status counterparts (e.g., Rijken & Liefbroer, 2009). This depends on their higher likelihood to postpone first birth, which lowers their fertility span and is also related to a longer school career (Cantalini, 2020), as well as on cultural grounds, namely on attitudes more oriented towards the career than towards the family (Murphy & Wang, 2001).

On the other side, a number of mechanisms related to the intergenerational transmission of status could make women born in high-status families less penalized by parenthood than their low-status counterparts, even over and above education.² First, we might expect the former to have stronger career aspirations than the latter, determined by the socialization process and the related will to avoid social demotion (Breen & Goldthorpe, 1997). Second, employers' discrimination towards women, related to motherhood or to pure 'taste for discrimination', might be weaker in the case of women coming from the higher classes, since a distaste for women might to some extent be balanced by homophily and the empathy it involves (Jackson, 2009). Third, resources transmitted by the family of origin, in terms of material resources and skills, might make women born in the higher classes more productive and more able to cope with the negative effects of motherhood on their careers. It is worth noting that all these mechanisms are among the standard mechanisms to which the existence of a DESO is usually attributed (Bernardi & Ballarino, 2016). In our case, these mechanisms might help reduce the negative career effects of being mothers. A further mechanism, specific to the gendered nature of the DESO, might relate to a higher gender equity in higher-class (and highly-educated) couples. Indeed, the higher likelihood of educated men to contribute to family activities makes more resources available to women (in terms of both money and time), for them to be invested in their own occupational careers (Esping-Andersen, 2009).

² High education is a crucial factor that assists women in maintaining their attachment to the labor market post motherhood. A substantial portion of the 'protection' from large motherhood penalties for mothers from high-status families thus passes through education (for a detailed discussion of the mechanisms, see Cantalini, 2019).

3. Empirical expectations in the Italian context

Let us now move towards our empirical case. In general, Italy is a country whose gender regime is not favorable to women overall, particularly concerning their employment (Cantalini, 2020; 2022). Indeed, it is the lowest-ranking Western European country according to the Gender Inequality Index (<https://eige.europa.eu/gender-equality-index/2021>). The dominant family model, especially among low-educated couples, is (still) based on a gendered division of labor according to which the male partner is the breadwinner and the female the main caregiver (Cantalini, 2019). This is reflected in maternity and paternity leave rules: only mothers have compulsory maternity leave (5 months paid 80% of the regular wage), while fathers can access it only in exceptional and residual cases.³ After that, both mothers and fathers can access up to 6 months of optional parental leave, paid 30% of the regular wage and available until the child reaches age 12. However, the extension to males of the parental leave took place in 2000, almost at the end of our observation window, and only a small proportion of fathers have actually made use of it (Pacelli et al., 2013). Moreover, these rules apply only to permanent dependent workers, while to the self-employed no compulsory maternity leave and only three months of parental leave are available, for one year after childbirth.

To a gender regime unfavorable to the labor market participation of women also contribute the relatively scant availability of both public childcare services for small children (0–2 years) and part-time contracts for private workers. In fact, the low proportion of public daycares makes it hard for women to re-enter the labor market after motherhood, unless they can rely on the family's networks (mostly involving grandparents) or on costly market-based services. Moreover, the scarcity of part-time contracts in the private sector, as well as the absence of rules incentivizing employers to meet requests for part-time on the part of workers, often compel mothers to choose between working full-time or exiting employment (Del Boca & Sauer, 2009).⁴

Given this gender regime, motherhood penalties in Italy emerge more as career interruptions rather than as occupational downgrading or wage loss (Budig et al., 2010; Pacelli et al., 2013). After motherhood, most Italian women leave employment, either temporarily or – often – permanently, making the minority who remain attached to the labor market a selected group, less likely to experience large occupational or wage penalties (Cantalini, 2020). Moreover, labor market penalties after motherhood are stronger for Italian women with low levels of education (Cantalini, 2019) or coming from disadvantaged family background (Cantalini, 2022). In fact, compared to their privileged counterparts, these groups of women not only are more likely to adopt reproductive behaviors that penalize careers, such as earlier transitions to and higher probabilities of first birth as well as greater risks of higher-order births (Cantalini, 2020). They are also more penalized by such behaviors than more advantaged women, both short and long after parenthood, especially for what concerns the attachment to employment.

The core point of our analysis concerns how social origin affects women's occupational careers, and the role of motherhood in this relation. Whereas in Italy there is a relatively high level of intergenerational persistence of occupational status, even net of education

³ Paternity leaves for fathers were introduced in 2012, when one compulsory and two optional days of fatherhood leave were established, then extended to four – two compulsory and two optional – in 2015. More recently, Italian law progressively extended the compulsory days of paternity leave to ten, reducing the optional days to one. However, these reforms did not affect our observation period (see below).

⁴ The proportion of part-time contracts has increased after 2000, when contract conditions of part-timers were deregulated to encourage employers to hire them, and has approached the European average in the very recent years. However, these years are only marginally covered in our observational window (see below).

(Bernardi & Ballarino, 2016), intra-generational mobility is relatively low (Barone et al., 2011) and research concerning male careers has provided evidence that much of the impact of family background already shows up when entering the labor market (Ballarino et al., 2021). We then expect that also concerning women most of the DESO might be operating already at the start of the career, and that it is likely to show only minor changes afterward (H1).

Moreover, due to the abovementioned reasons, we expect the role of motherhood in shaping the DESO to appear more in terms of labor market attachment rather than in terms of occupational status (H2).⁵ In addition, given the differences in fertility behavior across women from different social origins, we expect the DESO to further decrease when motherhood is controlled for, according to the *mediation effect* described above (H3). Finally, it might also be that parenthood plays a role in explaining the DESO because of larger motherhood penalties among women from the lower classes, according to the *interaction effect* defined above. This would make the social origin gaps, shaped at the beginning of the careers, increase over the life course among mothers, especially those with more than one child (H4).

4. Data, variables and methods

4.1. Data and variables

We used data from the Multipurpose Survey – Family and Social Actors, a sample survey conducted by the Italian Statistical Institute (ISTAT) every five years since 1998. We focused on the 2009 wave, where retrospective longitudinal information was collected on a sample of around 18,000 families and 44,000 individuals. This allowed the reconstruction of educational, career and family histories into a longitudinal yearly dataset. We restricted our analysis to a subsample of 5267 women born from 1930 to 1979, who had at least one employment episode and for which at least 15 years have passed since their first labor market entry. We indeed followed their life course for the first 15 years since the first labor market entry after completion of studies (either spent as employed or unemployed/inactive, see below), truncating observations at age 15 and censoring at age 54.⁶

We focused on two dependent variables. The first was a dummy equal to one if the individual was unemployed or inactive, which measured the probability to withdraw from employment during our observational window. This variable allowed us to study career interruptions, which, as we saw, are crucial when studying female careers, especially in their relationship with parenthood. The second dependent variable was the International Socio-Economic Index of Occupational Status, a well-tested measure of the quality of an occupation (ISEI, Ganzeboom et al., 1992). In our sample, the ISEI ranged from 16 (e.g., home maids, farm-hands) to 80 (e.g. life science and health professionals), with an average score of 41.7 (s.d. 13.0) (e.g., manual foremen, firefighters).⁷

The independent variable was social origin, measured according to the parental social class, which was constructed using the dominance

⁵ Unfortunately, our data source does not include reliable information concerning wages, so we cannot test for wage downgrading.

⁶ Excluding women who have never entered the labor market has limitations since it results in a selected sample based on certain individual characteristics (e.g., highly educated, living in the Northern regions, lower number of children, etc.), rather than a representative sample of the female population, especially given the low female activity and employment rate in Italy. However, alternative analytical choices are not possible since we cannot observe the career trajectories – and the motherhood penalties/premia therein – of those who have never worked.

⁷ Results do not change if other measures of occupational attainment are used, such as the Standard International Occupational Prestige Score (SIOPS), the probability of having an occupation in the service class or the probability of avoiding an occupation in the working class.

principle and operationalised by the EGP class scheme. We distinguished five social classes: service class (EGP I-II), white collars (IIIa), urban petty bourgeoisie (IVab), urban working class (IIIb-V-VI-VIIa) and agricultural classes (IVc-VIib).

The main control variables referred to education and parenthood. Educational attainment was treated as a time-constant variable and measured using the most detailed classification available in the data: illiterate or without education, primary, lower secondary, upper secondary (2–3 years), upper secondary (4–5 years), tertiary, and post-tertiary educated. Unfortunately, our data did not include information on upper secondary track or tertiary field of study. However, previous studies have shown that even very detailed categorizations of education, which also take into consideration the horizontal stratification of educational systems, do not fully mediate the association between social origin and occupational destination (Erikson & Jonsson, 1998; Hällsten, 2013). Therefore, our estimations of the DESO are hardly driven by an incomplete measure of education.

Parenthood was measured in two ways. First, we used a time-varying dummy variable equal to zero if the individual had not (yet) become a parent, and equal to one from the year of first birth until the end of observations, in order to study the average impact of parenthood on the DESO. Second, we focused on the time elapsed since motherhood, entered as a set of dummy variables to capture the effect of years after first birth (year of first birth; one year; two years; 3–4 years; 5–7 years; and 8 years or more after motherhood) and observe the short- and long-term effects of parenthood.

Moreover, we controlled for time spent in the labor market (i.e., our time axis). We operationalized this variable with yearly dummies measuring the years elapsed since a person started the occupational career, starting from the first job after the end of school. This specification allows our models to account for non-linearities in the career trends we observe, thus empirically capturing the variation of occupational outcomes and the DESO over the career (see Section 2.1). We used several alternative specifications of labor market entry (e.g., first job lasting at least six months), and the results (available from the authors) did not substantially differ. Of course, years in both employment and unemployment (or inactivity) were included in the estimation of careers breaks, whereas models of the ISEI only considered employment episodes. We thus estimated models of the ISEI using career duration as the time axis (i.e., years of effective work experience) as a robustness check, which confirmed the results presented here.

We also controlled for age at labor market entry and for an interaction between period and region of residence dummies. Finally, we added a time-varying variable combining information on the individual partnership status and the social class of the partner, required by the key role of the spouse in the career of women and in their relationship with parenthood and social origin. Our variable included six categories: not in a union or marriage; partner not active, unemployed or employed in the working class; partner employed in the service class; in the white collars; in the petty bourgeoisie.

Descriptive statistics of the analytical sample are provided in Table A1 in Appendix.

4.2. Methods and analytical strategy

We estimated growth curve models (Halaby, 2003), which have been widely used to analyze career progression in the recent social stratification and mobility literature (e.g., Härkönen & Bihagen, 2011; Manzoni et al., 2014; Ballarino et al., 2021). These models might be seen as two-level multilevel models (or individual-level panel regressions), where individuals constitute the higher level and yearly observations constitute the lower level. In our case, we estimated *group-specific* growth curve models (Brüderl et al., 2019), by including an interaction term between our main independent variable – i.e., social class of origin – and our time axis – i.e., years since labor market entry – in order to study how differences by social origin shaped at career entry evolve over

the life course.

Our empirical strategy included three steps. The first aimed at investigating how the DESO evolves over the life course, by means of the following two models:

$$M1 : Y_{it} = \beta_0 + \beta_1(YEARSinLM_{it} \times ORIGIN_i) + \beta_2(z_{it}) + u_i + e_{it}$$

$$M2 : Y_{it} = M1 + \beta_3(EDU_i \times YEARSinLM_{it})$$

which respectively estimated the total (Model 1) and the direct (Model 2) – i.e., net of educational level (EDU_i) – effect of social class of origin ($ORIGIN_i$) on occupational outcomes over years since labor market entry ($YEARSinLM_{it}$), controlling for a vector of control variables, including: age at labor market entry, partnership status, social class of the partner, geographical residence and period (see above). Model 2 included an interaction term between education and the time axis, in order to better control the association between origin and destination for the changing effects of education over an individual life course.

The second and the third steps of our empirical strategy focused on the role of parenthood on the DESO over the career. The second step aimed at analyzing the role of parenthood as a possible *mediation effect*, i.e., whether and how the DESO is shaped by the different motherhood propensities across women from different social origin. The following model (Model 3) was estimated:

$$M3 : Y_{it} = M2 + \beta_4(PARENTHOOD_{it} \times YEARSinLM_{it})$$

which included a dummy with value one from the year of first birth ($PARENTHOOD_{it}$) as a control variable. As in the case of education, this variable was interacted with years since labor market entry, in order to control for the changing effects of parenthood over the life course.⁸ As we are using linear models, we can compare the differences by social origin between a model that includes controls for parenthood and one that does not, enabling us to quantify the impact of this variable on the DESO.

The third step, finally, aimed at studying whether parenthood can shape the DESO through an *interaction effect*, i.e., because the birth of a child can have different consequences on the career of women, depending on their social origin. We thus estimated Model 4:

$$M4 : Y_{it} = M2 + \beta_5(YEARSSinceKID_{it} \times ORIGIN_i)$$

where social class of origin was interacted also with years since first parenthood ($YEARSSinceKID_{it}$), enabling us to capture how careers of women from different socio-economic background change with an additional year of motherhood. Finally, we investigated the role of higher-order births in shaping the DESO – in terms of an interaction effect – by re-estimating Model 4 separately for women with only one child and women with two children or more.⁹

Since parenthood effects are estimated by growth curve models (i.e., panel models with random effects), we cannot rule out the possibility that they are driven by selectivity issues. In order to tackle this possible bias, we followed two main strategies as robustness checks. First, we estimated standard fixed-effects panel models separately by social class of origin, which allowed us to control for the unobserved ‘time-invariant’ heterogeneity bias, whereby individuals (in our case, mothers and non-mothers) can differ according to unobservable characteristics (e.g., motivation, career ambition, family orientation, etc.) biasing the

⁸ We also estimated parallel models controlling for number of children to account for the mediation effects of higher-order births in the DESO. We opted to present results with parenthood operationalized by means of a dummy variable because the interaction between number of children and the time axis generates several empty cells (e.g., no observations with more than two children in the very first years after labor market entry).

⁹ Neither our first measure of parenthood nor number of children can be included in Model 4, because of collinearity issues.

results when omitted from the models (see also Cantalini, 2022). Results from these models did not substantially differ from those presented here, confirming that our findings on parenthood effects are not driven by unobserved ‘time-invariant’ heterogeneity (see Fig. A1 in Appendix).

Second, we estimated distributed fixed-effects models separately by social class of origin, which included dummies also for one, two and three years before motherhood in the specification of the parenthood effects. Results from this sensitivity analysis only showed a small increase in labor market withdrawal in the year before motherhood, which is common to all social origins and is presumably related to maternity leaves, whereas no relevant changes in career development – neither in terms of career breaks nor of occupational status – are found two and three years before motherhood (see Fig. A2 in Appendix).¹⁰ This suggests that women do not substantially select themselves into motherhood when they are in a (downwardly or upwardly) steeper career than childless women, regardless of their social class of origin.

5. Empirical results

Fig. 1 shows both the average prediction to withdraw from employment across social classes of origin (upper part) and the related differences with respect to the service class (lower part). Results from three models are presented. The left-hand panels show the total effect of social origin (TESO), i.e., the association between origin and destination over the career, without controlling neither for education nor for parenthood (model 1). Differences by social class of origin are virtually null at the very beginning of the careers, but they largely increase over the life course. For instance, ten years after first career entry, women from the urban working class have a probability of being out of employment that is 5.3 percentage points (p.p.) higher than women from the service class (p -value < 0.01).

The center panels show our estimates of the direct effect of social origin, showing that most of the association between social class of origin and career interruptions is explained, as expected, by education (model 2). More in detail, the curves for women coming from the upper classes (service class and white collars) shift up, since it is their higher levels of education that makes them more attached to the labor market, especially in the later stages of their life course, whereas the curves for the lower classes (urban working class and agricultural classes) shift down. This is why in this model at the end of our observational window the disadvantage of women from low-status origin disappears, to be replaced by a small advantage – e.g., 2.0 p.p. for women from the urban working class (p -value > 0.1), and 6.2 p.p. for women from the agricultural classes (p -value < 0.05).

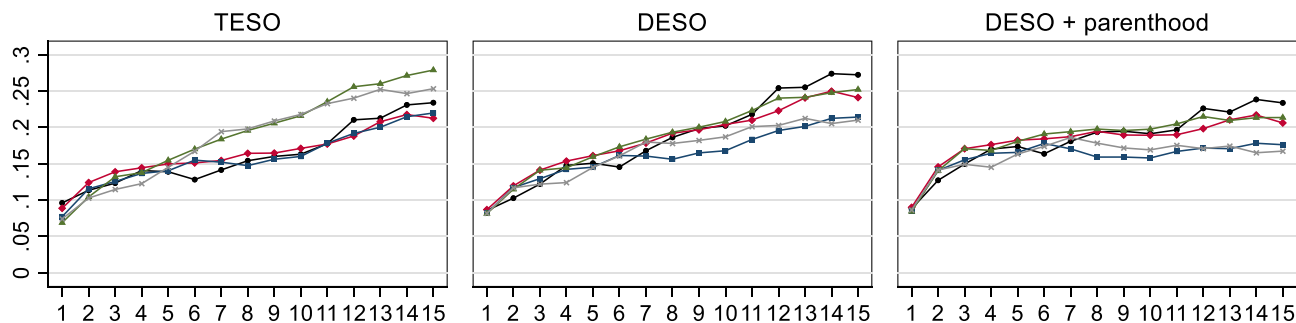
Finally, the right-hand side panels show the direct effect of social origin on career interruptions net of both education and parenthood, allowing to observe whether the birth of a child explains the different probabilities to withdraw from employment across social origins through a *mediation effect* (model 3). First of all, the upper part of the figure shows that curves for all social classes of origin become flatter, confirming that the birth of a child is one of the main reasons why Italian women (temporarily or permanently) interrupt their career. However, the DESO on career breaks seems not to be affected by the different propensities of motherhood across social origins. Indeed, the differences between women from different socio-economic background do not substantially change compared to Model 2, as shown in the lower part of the figure.¹¹

Fig. 2 shows how the differences by social origin in the predicted ISEI evolve over the career, both in absolute (upper part) and relative (lower

¹⁰ As described above, a compulsory maternity leave in Italy compels women to leave the workplace from two months before the expected childbirth until the third month after it, for a total of five months.

¹¹ Results are confirmed if number of children (without an interaction with time) are used as control for parenthood.

Average predictions



Differences wrt service class

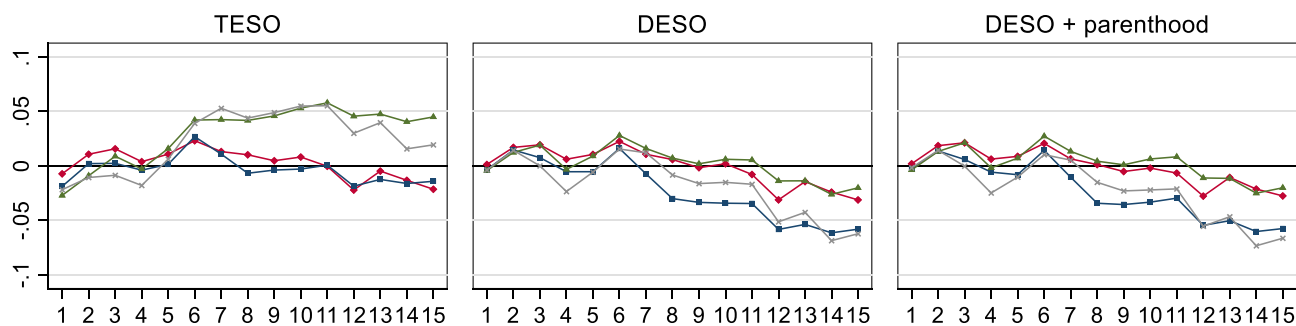


Fig. 1. Probability to withdraw from the labour market among Italian women, by social class of origin and years since labour market entry: average predictions and differences with respect to the service class. Linear panel models with random effects. Source: Multipurpose Survey – Family and Social Actors (2009). Notes: Ser = Service class; WhC = White collar; UPB = Urban Petit Bourgeoisie; UWC = Urban Working class; Agr = Agricultural classes. The x-axis refers to the years since labour market entry; the y-axis refers to the average predictions (upper panel) and the difference in average predictions with respect to the service class (lower panel). Models are estimated on a sample of 5,267 women.

part) terms. Models are specified in the same way as those presented in Fig. 1. The left-hand side panels, presenting results from a model controlling neither for education nor for parenthood (model 1), confirm that inequalities by social origin clearly emerge already at labor market entry. For instance, women from the urban working class enter the labor market in occupations with an average ISEI that is 6.5 points lower than women from the service class (p -value < 0.01). The gap slightly increases over the life course, up to an average difference of 7.3 ISEI points between children of the service class and children of the urban working class at the end of our observational window (p -value < 0.01).

Controlling for (an interaction between time and) education makes the gap related to social origin substantially decrease, as expected, again confirming that differences in education are crucial in explaining the association between class of origin and occupational destination (model 2, center panels). However, inequalities remain visible, both at career entry and over the whole life course. For instance, the average difference – net of education – between women from the urban working class and women from the service class amounts to 2.6 points in the ISEI scale at labor market entry (p -value < 0.01). Moreover, the direct effect of social origin appears to slightly increase over the career, as a result of some improvement in the socio-economic status for some social classes of origin (e.g., service class, urban petty bourgeoisie and agricultural classes) and a stall in the career for other social classes of origin (e.g., urban working class and, especially, white collars). These trends point to a small increase of the gap existing at labor market entry between

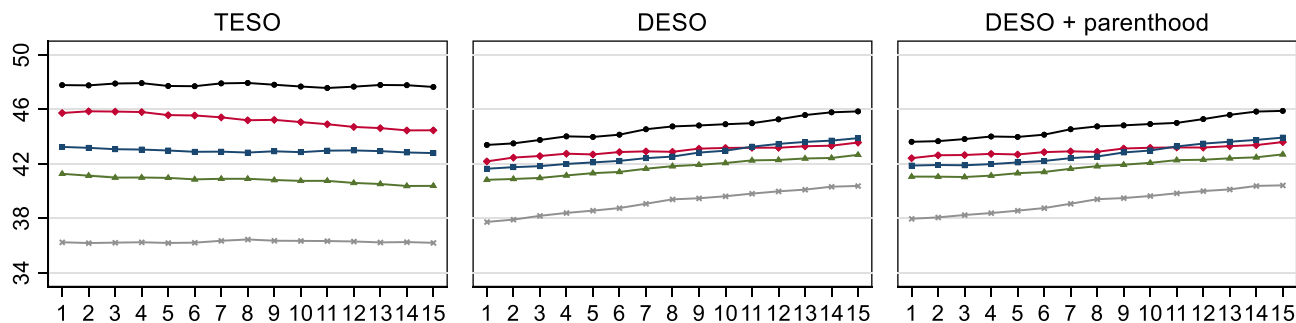
children of the service class and children of the urban working class, which indeed amounts to 3.2 points in the ISEI scale at the end of our observational window (p -value < 0.01). However, they also point to a stability in the inequalities, if women from the service class are compared to those from the agricultural classes (differences are equal to 5.7 ISEI points at career entry and to 5.5 fifteen years later).

Finally, the occupational gap by social origin does not change if a measure of parenthood is included in the model, confirming that motherhood does not impact on the DESO because of different propensities of having a (further) child across women from different classes of origin (model 3, right-hand side panels). Group-specific career curves remain very similar to those estimated by model 2, showing the DESO not to change, both at labor market entry and over the life course. As for the role of motherhood, then, our results suggest it does not explain the DESO by a *mediation effect*, as the differences between classes do not really change when motherhood is controlled for.

The next question is then whether parenthood can explain the DESO by an *interaction effect*, i.e., because its effect on careers changes according to social origin. Fig. 3 shows the average prediction of experiencing career interruptions (upper part) and ISEI (lower part), comparing childless women and mothers from different social classes of origin, over time since the first parenthood. The figure appears to provide a positive answer to our question, showing that for both of our outcomes the impact of motherhood changes over social classes.

Concerning career interruptions, in fact, the probability to withdraw

Average predictions



Differences wrt service class

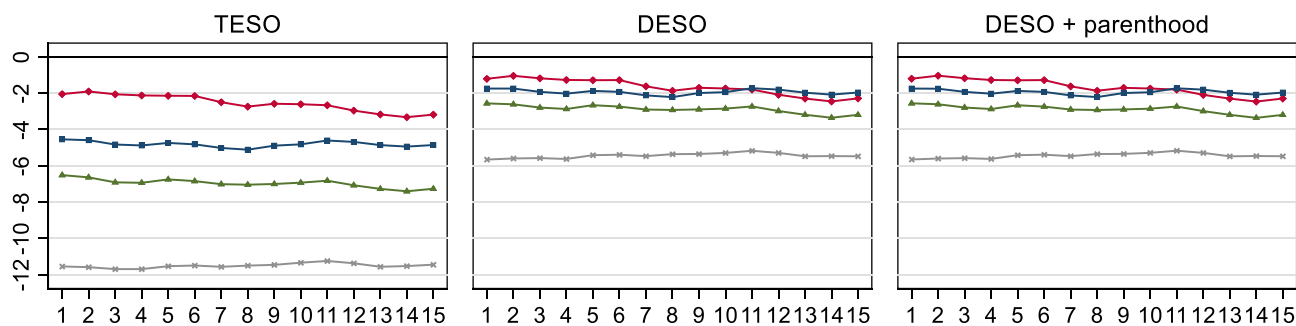


Fig. 2. Predicted ISEI among Italian women, by social class of origin and years since labour market entry: average predictions and differences with respect to the service class. Linear panel models with random effects. Source: Multipurpose Survey – Family and Social Actors (2009). Note: Ser = Service class; WhC = White collar; UPB = Urban Petit Bourgeoisie; UWC = Urban Working class; Agr = Agricultural classes. The x-axis refers to the years since labour market entry; the y-axis refers to the average predictions (upper panel) and the difference in average predictions with respect to the service class (lower panel). Models are estimated on a sample of 5,267 women.

from employment in the year of first birth is much larger among women from the urban working class compared to other origins, especially the service class and the white collars. Compared to their childless counterparts from the same origin (and/or to the same individual before first birth), women from the urban working class are 16.3 p.p. more likely to leave employment when they become mothers ($p\text{-value} < 0.01$), whereas for those from the service class the motherhood gap in the year of first birth amounts to only 8.0 p.p. ($p\text{-value} < 0.01$).¹²

These differences persist and somewhat increase in the long run. Indeed, women from the service class are the only ones whose motherhood penalty appears to decrease over the life course, as shown by the decreasing magnitude of the coefficients long after childbirth. For instance, mothers from the service class are only 4.5 p.p. more likely than their childless counterparts to be out of employment 8 years or more after parenthood ($p\text{-value} > 0.1$). Mothers from other origins – especially those from the urban working class – seem to face stronger

difficulties to re-enter the labor market, even several years after the birth of their first child. In fact, their curves increase the year after motherhood and then remain stable over the life course, so that mothers from the urban working class are 18.9 p.p. more likely not to work 8 years or more after parenthood ($p\text{-value} < 0.01$).

An example can further clarify how parenthood shapes the DESO through an interaction effect. If one compares the average predicted probabilities of being out of work across social origins, net of education, only slightly higher probabilities for the upper classes (e.g., service class) with respect to the lower classes (e.g., urban working class) emerge among childless women, as shown by the dashed curves in Fig. 3. On the contrary, the predicted probability to interrupt the career in the year of first birth amounts to 23.7% among mothers of the service class and to 27.3% among mothers of the urban working class, with a difference of 3.6 p.p., as shown by the solid curves. The same figures are respectively 20.2% and 29.9% 8 years or more after motherhood, pointing to an increase in the disadvantage of mothers of the urban working class over the life course, up to 9.7 p.p. This result thus suggests larger differences by social origin among mothers, both in the short term and, especially, in the long term after motherhood.

Differences are smaller if occupational status is considered, as expected, but still, they are visible (lower part of Fig. 3). Although no substantial motherhood penalties appear among women from the lower classes of origin, presumably driven by the selectivity of those who remain employed after parenthood, a (small) motherhood premium

¹² Our parenthood coefficients estimated by panel models with random effects are a weighted average of the coefficients produced by the between and within estimators, making them a combination of the penalty/premium of mothers with respect to childless women and to the same individual, when childless. Coefficients estimated by a model with fixed effects, which helps to estimate penalties/premiums under weaker assumptions, by considering only variation within individuals, do not substantially differ from those estimated by our models (see Fig. A1 in Appendix).

Career interruptions

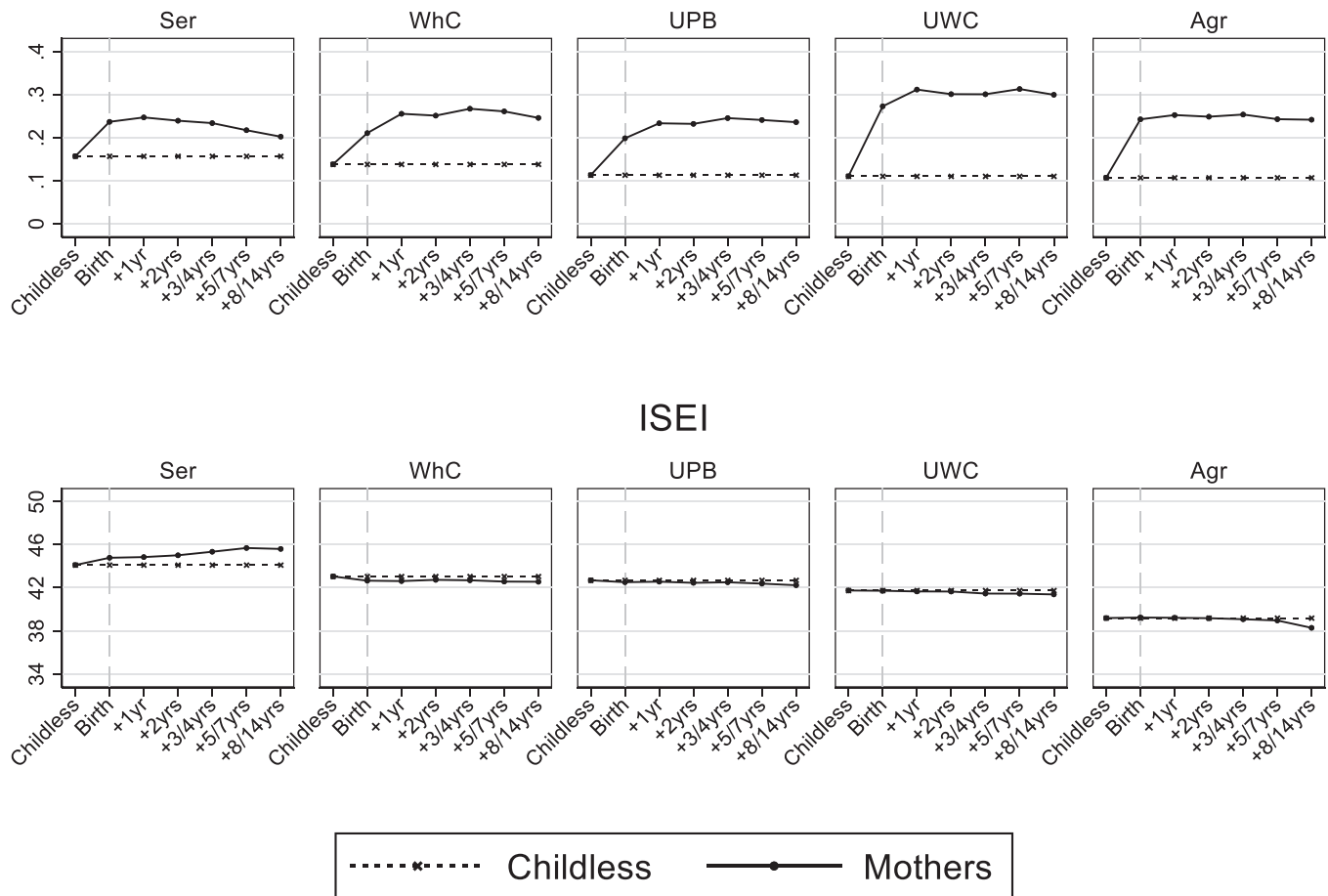


Fig. 3. Average predictions to withdraw from the labour market and predicted ISEI among Italian women, by social class of origin and years since first parenthood. Linear panel models with random effects. Source: Multipurpose Survey – Family and Social Actors (2009). Note: Ser = Service class; WhC = White collar; UPB = Urban Petit Bourgeoisie; UWC = Urban Working class; Agr = Agricultural classes. The x-axis refers to the years since first parenthood; the y-axis refers to the average predictions. Models are estimated on a sample of 5,267 women.

emerges for those from the service class, which to some extent increases long after the first birth. Compared to childless women from the same social origin, mothers from the service class work in occupations with an ISEI that is 1.5 points higher 8 years or more after first parenthood (p -value < 0.1).

Finally, Figs. 4 and 5 provide additional insights by dividing mothers into subgroups based on the number of children they have. This division allows us to examine the short- and long-term effects of first parenthood according to social origin and number of children, as well as to investigate the potential role of higher-order births on the DESO. Motherhood penalties, as well as the differences between social origins, are much lower for women with one child only (reported in the upper part of the figures), both in terms of employment withdrawal (Fig. 4) and occupational status (Fig. 5), and then slightly decrease over the life course. Fig. 4 shows that among mothers with two children or more (reported in the lower part of the figure), penalties are much higher, confirming that career disadvantages cumulate with the birth of an additional child. Moreover, differences between social origins are larger and they increase over years after parenthood, suggesting that higher-order births, in particular, are more penalizing for women with a disadvantaged family background. Indeed, if one-child mothers seem to have good chances to come back to work after two years after childbearing, independently from their social origin, in the case of the mothers of two or more children only those from the service class do (Fig. 4).

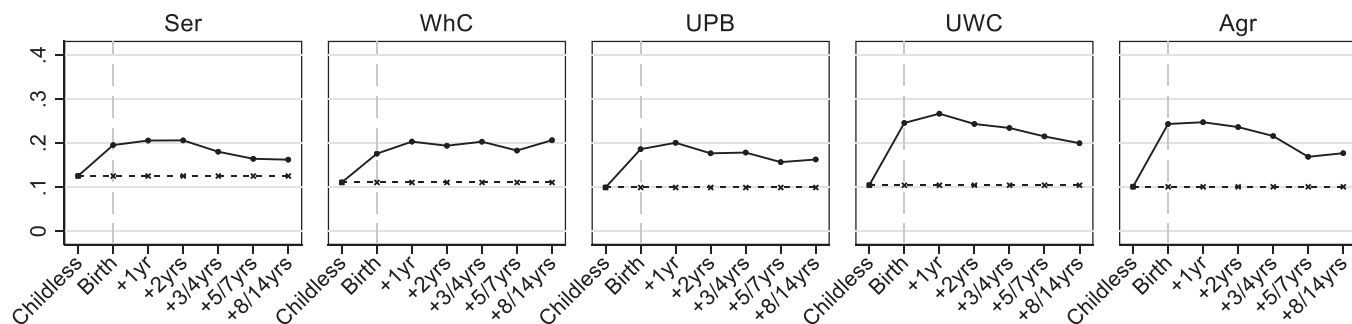
Although parenthood effects and differences by social origin are

more visible in the probability of career breaks, observing higher-order births shows some interesting results concerning occupational status as well (Fig. 5). Indeed, not only mothers of two or more children experience (slightly) larger penalties if they come from the medium or lower classes compared to their counterparts with an only child. Besides this, the small motherhood premium already observed for women from the service class – and its increase over the career – is more relevant among those with more than one child, pointing to a premium of 2.0 points in the ISEI scale 8 or more years after first parenthood (p -value < 0.1).

6. Conclusion

This paper studied in longitudinal perspective the direct effect of social origin (DESO) on the careers of women, taking into account the key role of motherhood in shaping its pattern over the life course. Our key dependent variables were the probability of experiencing career breaks, and the occupational status (ISEI) of those who were employed. The inclusion of career interruptions as an outcome variable is particularly important in the study of women’s careers, especially in countries like Italy, where female labor force participation and employment is relatively low. Our first research question concerned the pattern over time of the DESO: When does it appear? How does it evolve over the occupational career (and the life course)? Does the penalty/advantage it involves get smaller or larger over time? Our results showed that when the probability of experiencing career breaks is considered, differences

One child



Two children or more

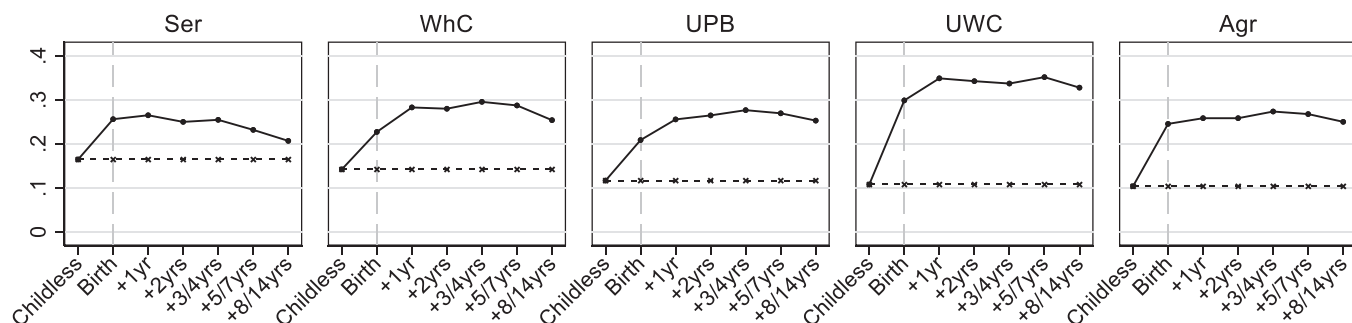


Fig. 4. Average predictions to withdraw from the labour market among Italian women, by social class of origin, number of children and years since first parenthood. Linear panel models with random effects. Source: Multipurpose Survey – Family and Social Actors (2009). Note: Ser = Service class; WhC = White collar; UPB = Urban Petit Bourgeoisie; UWC = Urban Working class; Agr = Agricultural classes. The x-axis refers to the years since first parenthood; the y-axis refers to the average predictions. Models are estimated on a sample of 5,267 women.

related to social origin are relatively small in the early years after labor market entry, but substantially increase over the life course. However, these differences by social origin are entirely explained by differences in education levels.

Concerning occupational status, differences by social origins (DESO) already appear at labor market entry, as shown by most previous literature (Barone et al., 2011; Ballarino et al., 2021), and then only slightly change over the life course. For this outcome variable, then, our H1 is supported. Indeed, women coming from some social classes of origin such as the service class, the urban petty bourgeoisie and the agricultural classes improve their occupational status over the career more than others, such as the urban working class and the white collars. Therefore, the DESO appears to increase over the career if women from the service class are compared to those from the urban working class, whereas it remains substantially stable if the former are compared to those from the agricultural classes.

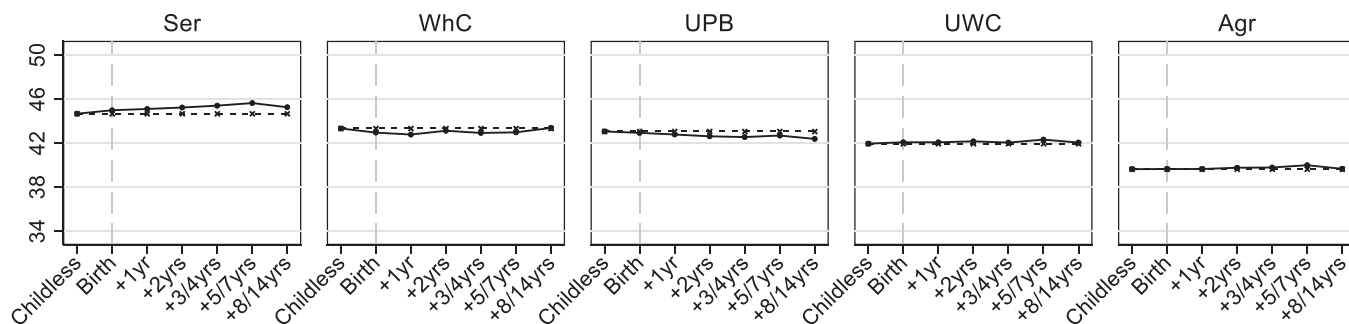
Our second research question concerned the role of motherhood in driving the DESO. Does motherhood shape the magnitude and trend over the career of the DESO? Does this potential role depend on different propensities towards motherhood across social origins, or on different motherhood effects across social origins? Our results clearly showed that motherhood matters, particularly – as we expected - concerning career breaks. This confirms the importance to consider this outcome when studying female careers, in their interrelationships with social stratification and parenthood, especially in the Italian context, where social

and policy norms tend to push women and mothers out of employment (H2 supported).

Concerning the mechanisms behind the impact of motherhood on the DESO, we found that it does not help to explain the association between social origin and occupational outcomes through a *mediation effect*, i.e., because women from low social origin are more likely to have a(nother) child than women from high social origin (H3 not supported). In fact, the birth of children has been proved as one of the main reasons why Italian women interrupt their career, but adding a measure of these family events as a control variable in our models did not considerably affect the social origin gap. Rather, motherhood contributes to explain the DESO – and its pattern over the life course – through an *interaction effect*, that is because it has different consequences on careers depending on social origin (H4 supported). Indeed, compared to women from the service class, women from the lower classes have much higher risks to leave the labor market shortly after parenthood and face higher difficulties to re-enter in the long run, especially in case of higher-order births.

In terms of occupational status differences are lower, presumably because of the selection of the (relatively few) Italian women that remain attached to the labor market after motherhood. However, women from the upper class are the only ones experiencing a short- and long-term occupational premium, especially if they have additional children. While we cannot directly observe the mechanisms at play, it is clear that this group of women can benefit from some factors that ‘protect’ them from the negative effects of motherhood, and contribute

One child



Two children or more

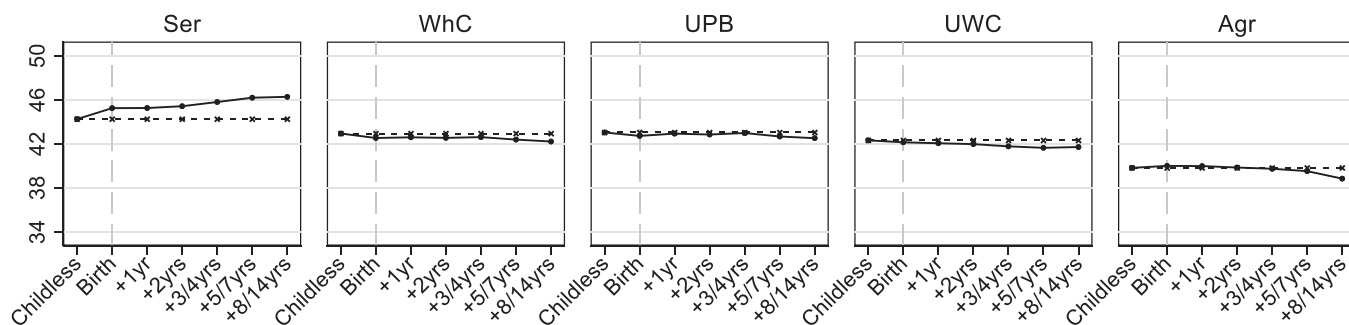


Fig. 5. Predicted ISEI among Italian women, by social class of origin, number of children and years since first parenthood. Linear panel models with random effects Source: Multipurpose Survey – Family and Social Actors (2009). Note: Ser = Service class; WhC = White collar; UPB = Urban Petit Bourgeoise; UWC = Urban Working class; Agr = Agricultural classes. The x-axis refers to the years since first parenthood; the y-axis refers to the average predictions. Models are estimated on a sample of 5,267 women.

to widening the inequalities with respect to their counterparts from the lower classes.

We can speculate that women from the upper class might nurture stronger career aspirations, related to the will to avoid social demotion, which makes them more attached to employment as well as less available to accept low-status occupations. Also, they might be less subject to employers' discrimination. Moreover, not only can they benefit from higher resources transmitted by the family of origin that might help in acquiring childcare services from the market, such as private pre-schools or nannies, thus favoring their presence on job even in presence of small children. They can also count on the higher economic resources of the partner, in line with the principle of homogamy, according to which higher-status women tend to marry higher-status men (Kalmijn, 1998), as well as on their higher availability to share family chores, according to the patterns of higher gender equity observed among higher-class (and highly-educated) couples (Esping-Andersen, 2009).

Our paper's main contribution lies in integrating a crucial family event, parenthood, within the theoretical and empirical framework of research on the social stratification of occupational careers. Through our empirical study on Italy, we demonstrated how motherhood can be a key factor shaping inequality among women based on their social origin. This is because the careers of women from different family backgrounds can be affected differently by the birth of a child, both in the short-term and over the long run. In other words, significant differences in the magnitude and the longitudinal patterns of the DESO emerge between

women with and without children, as motherhood has different consequences on the career depending on social origin. The DESO, i.e., the occupational disparities between women from different social origin, is likely to be more pronounced and to increase further over the career for women with children.

Taking parenthood into account in the study of the DESO among women is thus crucial. Future research on social stratification research cannot neglect the role of family dynamics when focusing on women, examining how the social class of origin (as well as other measures of social position, such as education) interacts with motherhood and other family events. Moreover, it is important for future studies to address some of the limitations of our paper. First, we primarily focused on the birth of (further) children as an event that potentially increases inequalities among women. Another related key element is the timing of parenthood, which strongly differs across social origins, with higher-status women more likely to postpone first birth to older ages than their lower-status counterparts (Dahlberg, 2015). For this reason, and also because postponing motherhood has been shown to be beneficial on female careers (Taniguchi, 1999), the timing of parenthood can be important in shaping the pattern of social inequalities over the life course. However, the proper investigation of this issue would require a rather different analytical strategy, for instance considering age as the time axis rather than years since labor market entry, as we did here. Indeed, although women from the upper strata tend to become mothers at older ages, they may tend to accelerate the transition into motherhood

once entered in the labor market in order to catch-up for the time they 'lost'.

Second, the analysis of motherhood penalties or premia generally requires a careful consideration of the possible bias in the estimation of causal effects. Here, we opted for panel models with random effects rather than fixed effects – which are among the techniques more frequently used to study motherhood penalties – because we were specifically interested in two 'time-constant' variables, namely social class of origin and education, which are essential to estimate the DESO. However, we tried to overcome the possible problems of this empirical strategy by also performing parallel analyses using standard and distributed fixed-effects panel models (estimated separately by social origin), which confirmed the robustness of our findings. Our approach can be thus considered as a first step to analyze the role of parenthood in social inequalities, which can be integrated by future studies with the application of more advanced statistical techniques (e.g., fixed-effects models with individual slopes, individual synthetic control method, etc.: see Ludwig & Brüderl, 2018; Vagni & Breen, 2021).

Finally, our data did not allow us to directly observe the mechanisms producing the advantage of the higher classes over the life course. We might speculate that the fact that most of the DESO takes place at the start of the career relates to family networks, while its (small) increase over time is related to differences in motivation and productivity. Future research on the DESO – both in general and in its relationship with family events – should devote specific attention to this issue by using different methodological approaches and data, such as direct observation, vignette studies, audit studies, firm-level career data, and so on.

Funding

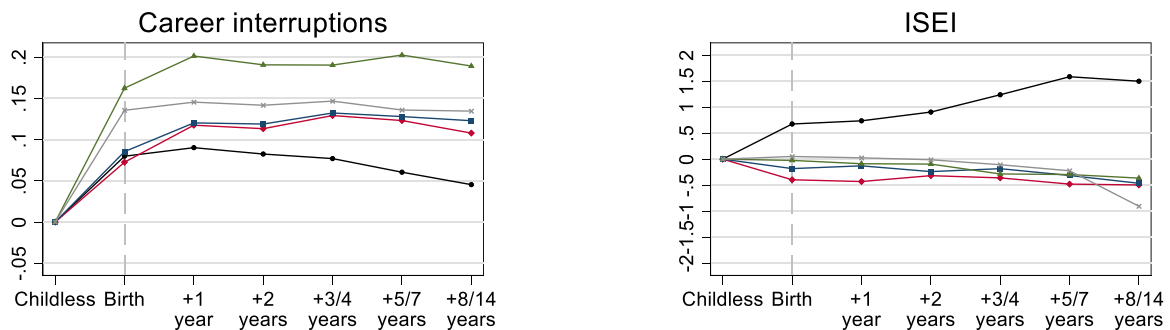
This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Declaration of Competing Interest

The authors declare that there is no conflict of interest.

Appendix A

Panel models with random effects



Panel models with fixed effects

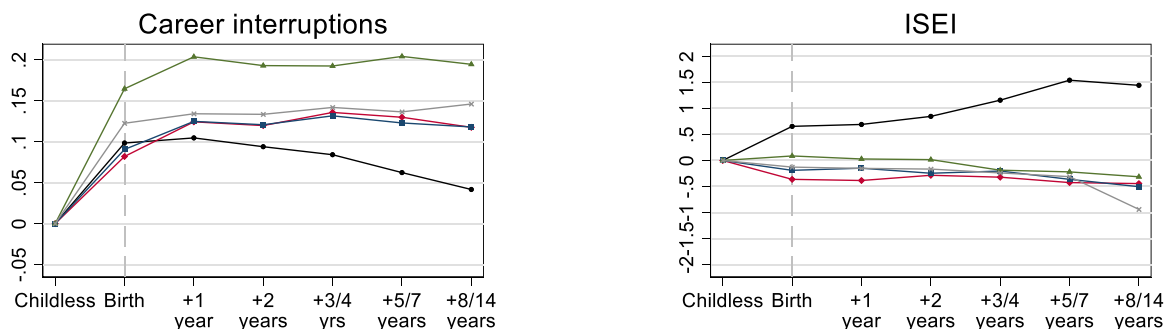
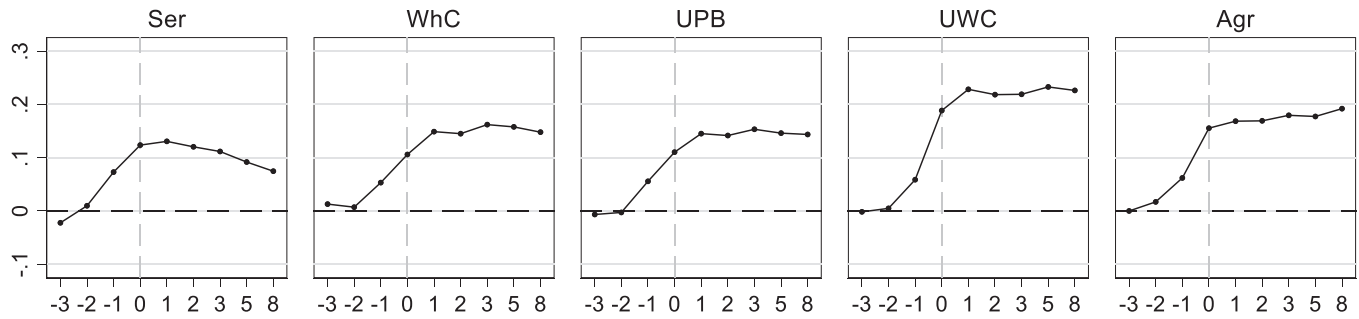


Fig. A1. Parenthood effects on the probability to withdraw from the labour market and on ISEI among Italian women, by social class of origin. Linear panel models with random effects (upper panel) and fixed effects (lower panel). Beta coefficients. Source: Multipurpose Survey – Family and Social Actors (2009). Note: Ser = Service class; WhC = White collar; UPB = Urban Petit Bourgeoisie; UWC = Urban Working class; Agr = Agricultural classes. The x-axis refers to the years since first parenthood; the y-axis refers to the difference in average predictions with respect to the childless. Models are estimated on a sample of 5267 women (divided by social class of origin, in the case of fixed effects models).

Career interruptions



ISEI

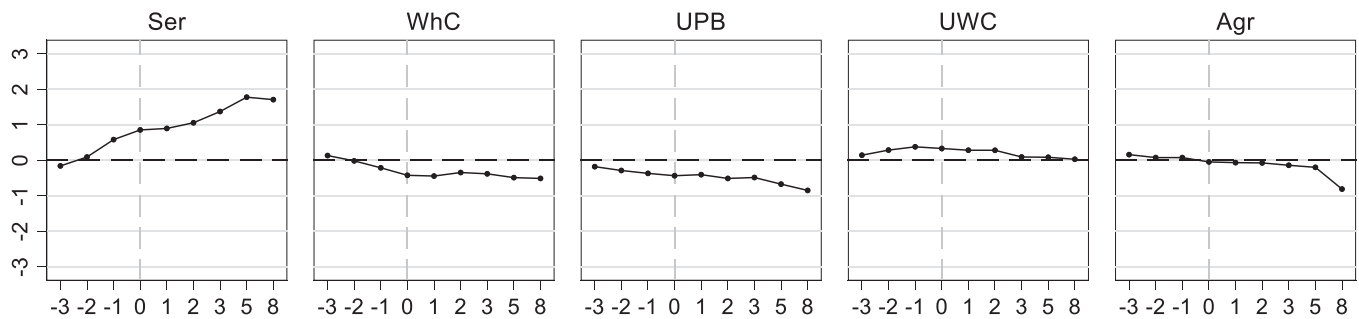


Fig. A2. Parenthood effects on the probability to withdraw from the labour market and on ISEI among Italian women, by social class of origin. Distributed fixed effects models. Beta coefficients. Source: Multipurpose Survey – Family and Social Actors (2009). Note: Ser = Service class; WhC = White collar; UPB = Urban Petit Bourgeoisie; UWC = Urban Working class; Agr = Agricultural classes. The x-axis refers to the years since first parenthood, including three yearly dummies before childbirth; the y-axis refers to the difference in average predictions with respect to four or more years before childbirth. Models are estimated on a sample of 5267 women, divided by social class of origin.

Table A1

Descriptive statistics of the sample, by social class of origin. Mean and standard deviation (in brackets).

	Service	WhC	UPB	UWC	Agric.	Total
<i>Dependent variables</i>						
Pr(withdraw from employment)	0.13 (0.33)	0.14 (0.35)	0.15 (0.36)	0.20 (0.40)	0.20 (0.40)	0.18 (0.38)
Pr(withdraw from employment) at year 15	0.22 (0.42)	0.22 (0.41)	0.25 (0.43)	0.33 (0.47)	0.33 (0.47)	0.29 (0.45)
Years not in employment	1.92 (3.53)	2.13 (3.69)	2.25 (3.74)	3.00 (4.04)	3.04 (4.15)	2.67 (3.95)
ISEI	51.58 (13.74)	47.62 (12.70)	44.02 (11.94)	40.50 (10.26)	34.23 (12.54)	41.70 (12.96)
ISEI at year 1	50.01 (13.19)	46.72 (12.33)	42.96 (11.16)	39.70 (9.76)	33.26 (11.61)	40.57 (12.30)
ISEI at year 15	53.26 (13.75)	48.05 (12.89)	45.06 (12.32)	41.54 (10.96)	35.33 (13.34)	42.86 (13.43)
<i>Main controls</i>						
No education	0.00 (0.07)	0.01 (0.08)	0.01 (0.08)	0.01 (0.11)	0.11 (0.31)	0.03 (0.18)
Primary	0.07 (0.25)	0.06 (0.24)	0.13 (0.34)	0.22 (0.41)	0.43 (0.50)	0.22 (0.41)
Low secondary	0.12 (0.33)	0.17 (0.38)	0.26 (0.44)	0.32 (0.47)	0.24 (0.43)	0.25 (0.44)
Upper secondary (2–3 yrs)	0.09 (0.28)	0.10 (0.30)	0.12 (0.33)	0.13 (0.33)	0.06 (0.24)	0.10 (0.31)
Upper secondary (4–5 yrs)	0.38 (0.49)	0.43 (0.50)	0.37 (0.48)	0.27 (0.45)	0.13 (0.33)	0.29 (0.45)
Tertiary	0.29 (0.46)	0.20 (0.40)	0.10 (0.30)	0.04 (0.20)	0.03 (0.18)	0.09 (0.29)
Post-tertiary	0.04 (0.19)	0.02 (0.14)	0.01 (0.08)	0.00 (0.05)	0.00 (0.04)	0.01 (0.09)
N. children	1.22 (0.95)	1.24 (0.95)	1.27 (0.94)	1.25 (0.87)	1.51 (0.98)	1.31 (0.93)
Childless	0.26 (0.44)	0.27 (0.44)	0.23 (0.42)	0.21 (0.41)	0.15 (0.36)	0.21 (0.41)
One child	0.34 (0.47)	0.30 (0.46)	0.35 (0.48)	0.38 (0.49)	0.35 (0.48)	0.35 (0.48)

(continued on next page)

Table A1 (continued)

	Service	WhC	UPB	UWC	Agric.	Total
Two children or more	0.40 (0.49)	0.43 (0.50)	0.42 (0.49)	0.41 (0.49)	0.50 (0.50)	0.43 (0.50)
<i>Other controls</i>						
Partner inactive or in WC	0.08 (0.28)	0.10 (0.30)	0.12 (0.33)	0.18 (0.38)	0.19 (0.39)	0.15 (0.36)
Partner in Service	0.07 (0.26)	0.06 (0.23)	0.03 (0.17)	0.02 (0.13)	0.01 (0.12)	0.03 (0.17)
Partner in WhC	0.15 (0.36)	0.18 (0.38)	0.15 (0.36)	0.13 (0.33)	0.08 (0.27)	0.13 (0.34)
Partner in PB	0.05 (0.21)	0.05 (0.21)	0.07 (0.26)	0.07 (0.25)	0.09 (0.29)	0.07 (0.25)
No partner	0.42 (0.49)	0.44 (0.50)	0.44 (0.50)	0.45 (0.50)	0.43 (0.50)	0.44 (0.50)
Age at LM entry	22.37 (4.19)	21.45 (4.24)	20.18 (4.11)	19.01 (3.81)	18.64 (4.27)	19.75 (4.25)
Person-years	6180	12,450	12,465	28,860	19,050	79,005
N. cases	412	830	831	1924	1270	5267

Source: Multipurpose Survey – Family and Social Actors (2009)

Note: WhC = White collar; UPB = Urban Petit Bourgeoisie; UWC = Urban Working class

Appendix B. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.rssm.2023.100847](https://doi.org/10.1016/j.rssm.2023.100847).

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