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How much his or her job loss influences fertility: A couple approach

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Abstract

Objective: We analyze the effect of job loss on couple's fertility within 5 years, in the United Kingdom and Germany. We contribute to the literature by assessing to what extent a man's and a woman's job loss is consequential. Further, we study the effects based on couples' income, earnings division between partners, parental status, and women's age.

Background: A job loss may decrease the couple's fertility as a drop in resources reduces parents' investments to devote to a newborn—or it may increase the risk of a new birth because a job loss reduces the opportunity cost of a birth, especially if the woman loses her job.

Method: We analyze couples from large population-representative panel surveys in Germany ($N = 15{,}029$) and the United Kingdom ($N = 15{,}932$) containing yearly information about employment, relationship status, and fertility histories. We carry out estimates with linear probability models and inverse probability weighting methods.

Results: Our results show that men's and, to a large extent, women's job loss negatively affects the chances of birth, especially in the United Kingdom. The subgroups mostly hit are income-egalitarian/female breadwinner and childless couples, with women in their mid-20 s up to late 30 s in the United Kingdom; income-egalitarian/male-breadwinner families, with 35-year to 40-year-old women and one child in Germany; middle-income couples are relatively more affected in both countries.

Conclusion: A job loss makes couples less likely to have a child, particularly if the affected partner is a woman. The income effect jointly with other "unemployment scars" likely prevails on the reduction of opportunity costs of job loss.

KEYWORDS
couples, fertility, gender, job security, longitudinal research

INTRODUCTION

In Europe, labor market uncertainty is considered a driver of fertility postponement and decline (Alderotti et al., 2021; Matysiak et al., 2021; Mills & Blossfeld, 2005). Previous research has shown an association between adverse economic conditions and the decline in fertility in aggregated data (Adserà, 2004; Currie & Schwandt, 2014). However, the micro-level evidence on this relationship has been less coherent and has mainly addressed the consequences on individual, rather than couple-level, fertility (e.g., Andersen & Özcan, 2021; Hofmann et al., 2017; Özcan et al., 2010).

This study investigates the impact of a job loss on a couple's fertility and aims at assessing how his or her job displacement matters. Growing theoretical and empirical research has framed fertility as a joint decision of partners (e.g., Doepke & Tertilt, 2019) and has identified gender-specific preferences in family planning (Doepke & Kindermann, 2019). Partners bargain over the allocation of labor market time and family life, including childbearing and childcare (Lundberg & Pollak, 1993; Misra et al., 2011). From the 1970s, the advancement of women in the labor market has progressively reshuffled the "traditional" roles for women and mothers (England, 2010; Goldin, 2006; Goldscheider et al., 2015). Women have progressively envisioned their career as part of their identity, and a job detachment as a signal of loss of prestige and social belonging, such as most men (Goldin, 2006). A woman's or a man's job loss can affect fertility decisions not only due to the reduction in the resources to be invested in a child's upbringing (e.g., Del Bono et al., 2012, 2015), but also through the reallocation of tasks within the couple (Comolli, 2021; Harkness & Evans, 2011; Kaufman & Bernhardt, 2012; Lundberg, 1985), and the perception of uncertainty and precariousness suffered by the unemployed spouse (Hofmann & Hohmeyer, 2013; Manzoni & Mooi-Reci, 2020; Schneider, 2015). However, whether the effect of a job loss on a couple's fertility varies according to the gender of the person affected by the labor market shock is a largely unexplored question in literature.

We analyze the effect of job loss (also occasionally termed "job displacement"; Del Bono et al., 2012; Sullivan & von Wachter, 2009) of a male and a female partner on the probability of a couple's birth within 5 years in the United Kingdom and Germany. The contribution of this study is twofold. First, we provide microlevel evidence on the question on the extent to which a woman's or a man's job loss affects fertility. Except for a study on Finland (Huttunen & Kellokumpu, 2016), previous research has either focused on the effect of a woman's job loss (Andersen & Özcan, 2021; Del Bono et al., 2012, 2015; Hofmann et al., 2017) or the effect of a husband's job loss (Andersen & Özcan, 2021; Lindo, 2010) on *individual* fertility. Second, we study which couple-level characteristics are more conducive of the consequences of a job loss, as partners' characteristics moderate the effect of employment instability on fertility (Alderotti et al., 2021). We illustrate which subgroups of couples are more exposed to the consequences of a job loss by distinguishing couples by their income, partners' relative earnings, birth order, and age of the woman.

Most demographic studies use event-history models to analyze the timing of childbearing and measure employment status as the main explanatory variable. A recent meta-analysis on the relationship between employment instability and fertility highlighted that men's unemployment has a negative effect on fertility, while women's fixed-term jobs—and not unemployment—are negatively associated with childbearing (Alderotti et al., 2021). However, most prior literature does not consider that the family planning and labor market decisions are usually jointly determined, and couples hit by an episode of unemployment might systematically differ from those who are not (Özcan and Andersen 2021). Also, prior studies have very rarely distinguished between voluntary and involuntary employment conditions (Alderotti et al., 2021). Drawing from the economic literature that uses mass layoffs and plant closures to disentangle voluntary and involuntary job loss (e.g., Huttunen & Kellokumpu, 2016; Song & von Wachter, 2014), we investigate the effect of a job loss captured by dismissal or firm closure, on a couple's childbearing. The comparison between workers who experience a job and those

who did not is a straightforward strategy to address the tradeoff between fertility choices and work hardship and reduce the bias.

We use longitudinal surveys from Germany (Socio-Economic Panel [SOEP]) and the United Kingdom (British Household Panel Study [BHPS] and UK Household Longitudinal Study [UKHLS]), linking individuals' employment, partnership, and fertility histories. We track the causes of an involuntary job loss in both countries to identify the treated couples, in which a partner loses his/her job, and control couples, who did not experience a job loss. We apply linear probability models and inverse probability weighting (IPW) estimations (Gangl, 2010; Morgan & Winship, 2015).

Our study addresses two of the most populated European countries and two different welfare systems (Esping-Andersen, 1999; Saraceno & Keck, 2011). In Germany, the labor market traditionally aims to stabilize the youth labor supply (Eichhorst et al., 2010), and the welfare state provides more generous unemployment benefits (Dlugosz et al., 2014) and more comprehensive packages for family-work reconciliation (Schober & Spieß, 2015). In contrast, in the United Kingdom, early-career positions are more unstable, jobs turnover is higher (Scherer, 2005), and the welfare system is less generous in terms of unemployment benefits (Clasen & Clegg, 2011) and provides less competitive childcare assistance and parental leave schemes (Lewis & West, 2017; OECD, 2020). However, although labor market uncertainty has been linked to fertility postponement (Schmitt, 2012a; Vignoli et al., 2020), Britain's total fertility rate has been higher than Germany's in the last three decades (Luci-Greulich & Thévenon, 2013; Schmitt, 2012b; World Bank, 2020). This study also aims at highlighting the micromechanisms linking labor market institutions and welfare state with the fertility dynamics in the two countries.

BACKGROUND

A couple-based approach

Fertility choice is generally a joint decision of two people. In the economic literature, parents derive utility from children and see them as a long-term investment despite the economic and psychological costs (Becker, 1981; Willis, 1973), and children can have a major impact on both spouses' labor supply and career prospects (Becker, 1981; Willis, 1973).

The seminal contribution of Becker (1960) postulated a unitary model of the household, where decisions are derived from a common utility function of the partners and no conflict of interest between partners or scope for disagreement are envisioned (Lundberg & Pollak, 1993). An important implication is that transferring/subtracting a given amount of money to either the male or the female partner should result in an increase/decrease in fertility. This mechanism, also known as "income effect" (Becker, 1960), implies that larger economic resources would lead to larger economic investments in children's upbringing. Likewise, a job loss, which implies a fall in income, should have a negative effect on fertility regardless of the gender of the partner hit.

The previous research on the labor market shocks and fertility has almost exclusively focused on individuals experiencing a job loss. The impact of unemployment is generally addressed from the side of the female spouse (e.g., Del Bono et al., 2012; Hofmann et al., 2017). The underlying assumption of many prior studies is that the job displacement of the female partner is pivotal for a couple's family planning (Doepke & Tertilt, 2018). Nevertheless, existing studies did not find consistent effects. Del Bono et al. (2012, 2015) and Hofmann et al. (2017) found that a displaced worker is less likely to have a child, in Austria and Germany, respectively, while Andersen and Özcan (2021) documented a positive effect of female job loss on motherhood in Denmark. Lindo (2010) examined the effect of men's job loss on fertility and found that a negative and persistent effect in the United States, whereas Andersen and Özcan (2021) did not find any significant effect of male partner's job loss on parenthood in Denmark.

The theoretical models of intrahousehold bargaining theorized that partners have different preferences over their own separate spheres of interest, such as fertility (Doepke & Kindermann, 2019; Lundberg et al., 1997; Lundberg & Pollak, 1993). While women have some independent control over their fertility, couples who agree on the plan to have a baby are more likely to end up with one (Doepke & Kindermann, 2017). Therefore, a job loss might not affect only one partner's decision to have baby, but also the *couple*'s decision-making process of childbearing, because the partner's characteristics might compensate for his or her job instability (Alderotti et al., 2021).

It is largely unclear whether, and to what extent, a couple hit by a job loss changes its fertility plans depending on the gender of the partner hit. Therefore, we study fertility at a *couple* level rather than from the perspective of the individual and we account for *both* partners' characteristics. We posit that the response to a job loss can be coordinated by both spouses—by adjusting their labor market participation and/or household participation—and that fertility decisions are usually no exception. Previous articles have either focused on the effect of woman's (Andersen & Özcan, 2021; Del Bono et al., 2012, 2015) or husband's job loss (Andersen & Özcan, 2021; Lindo, 2010) on *individual* fertility. To the best of our knowledge, only Huttunen and Kellokumpu (2016) addressed the influence of male and female partner's job loss on a couple-level fertility using Finnish data. The advantage of this approach is to highlight the gendered effect of job loss, that is, if the economic loss and the related uncertainty of one partner are consequential for fertility.

Gendered pathways

There are reasons to expect that the effect of a job loss differ by partner's gender. A temporary job loss reduces the opportunity cost of a birth, which equals the cost of being out of the labor force (e.g., the skills depreciation and the time devoted to childcare and subtracted to work). This mechanism, the "substitution effect" (Becker, 1960; Butz & Ward, 1979), would thus imply an *increase* in fertility after a job loss. In contrast to the income effect, this mechanism might be particularly salient for women, who tend to earn less than their male partners (Blau & Kahn, 2017) and might be less penalized in monetary terms by a job loss. In a sociological perspective, women's incentive to have a child goes beyond the low opportunity costs of childrearing. Withdrawing temporarily from the labor market to give birth is seen as a rational choice to reduce uncertainty (Friedman et al., 1994), ease the reconciliation of family and work, and reduce the costs of formal childcare (Hofmann et al., 2017).

A job loss might affect fertility for other reasons than income loss and substitution effect. A job displacement belongs to the domain of "trigger events," which disrupt the life course and might lead to the accumulation of disadvantage, or "scarring effect" (DiPrete & McManus, 2000; Gangl, 2006). Beyond the well-documented negative impact of job loss on income (Brand, 2015; Di Nallo & Oesch, 2021; Gangl, 2006), a job loss has been empirically linked to lower re-employment chances and downward quality of jobs (Brandt & Hank, 2014; Gangl, 2004; Manzoni & Mooi-Reci, 2020).

A labor market shock also tends to disrupt nonwork relationships. In this view, a career interruption might depress fertility beyond the mechanisms linked to labor market outcomes. The theoretical framework of "scarring effect" has been empirically confirmed in other socioeconomic domains, including personal well-being (Blom & Perelli-Harris, 2021; Paul & Moser, 2009), family stability (Di Nallo et al., 2022; Doiron & Mendolia, 2011; Goñalons-Pons & Gangl, 2021) and health (Mousteri et al., 2018; Pearlman, 2015). Many studies highlighted gendered differences, as women tend to bear more negative consequences from a job loss (Anderson et al., 2021; Blom & Perelli-Harris, 2021; Tattarini & Grotti, 2022).

Hypothesis 1a. In summary, the effect of a man's job displacement would negatively influence fertility mainly through the fall in income and the "scarring effects," such as career breaks, worse job resumption perspectives, and worse psychological and health conditions.

Hypothesis 1b. However, a woman's job loss might have uncertain consequences. On the one hand, it would reduce or postpone fertility through the by-product of income effect and other "scarring effects" on other domains. On the other hand, it could favor fertility if the substitution effect prevailed.

Couple's characteristics: Moderators

The mechanisms mentioned above also depend on the characteristics of partners, because each spouse might respond differently to a labor market shock. Recent studies have stressed the importance of partners' characteristics (e.g., education, employment condition, household income) as moderators of the influence of labor market uncertainty on fertility (e.g., Alderotti et al., 2021; Bauer & Kneip, 2012). Hence, the second contribution of this analysis is to study the heterogeneous responses across subgroups of couples, such as the balance of partner's wages, the sum of partners' income, the presence of children, and the age of the woman.

Couples' earnings division can be considered a proxy of *labor market specialization*. According to the power rule hypothesis, the more powerful partner—for instance, in terms of relative earnings—has a stronger say in family planning (Hofmann & Hohmeyer, 2013). Specialized couples, in which only one partner is employed and has an income, are likely to suffer the most in case the only working spouse loses her job. Conversely, more egalitarian couples, who have two sources of income, might be more able to compensate for one partner's job loss.

Hypothesis 2. We hypothesize that the fertility of dual-earner couples is less affected by a job loss than that of specialized and breadwinner couples.

Whether partners' job loss reduces the chances of birth varies also according to the *couple's income*. Drawing on theories of compensatory advantages and relative deprivation (Brand, 2015), we inspect if the effect of a job loss varies by a dimension of social stratification. High-income couples, albeit prone to lose more from unemployment in absolute monetary terms, possess more economic resources and relational skills to cope with unemployment (Oesch & von Ow, 2017; Schmelzer, 2011). Therefore, the impact on their fertility might be negligible. On the contrary, low-income couples might face lower financial loss in absolute terms, but consequential in relative terms, with a big toll on their life quality (Di Nallo & Oesch, 2021). Also, low-income families may be less vulnerable to the income fall associated with a job loss simply because they have "less to lose" (Aquino et al., 2022). The existence of this "floor effect" correlates with the level of expectedness and normativity of disruptive events (Aquino et al., 2022). In contrast, intermediate-income couples could be worse off compared with the other couples because their economic losses would be tangible and their safety net—consisting of savings and state transfers (Di Nallo & Oesch, 2021; Ehlert, 2012)—could be inadequate to plan a birth.

Hypothesis 3. We thus hypothesize that the middle-income couples' fertility would be more vulnerable to a job loss compared with low-income and high-income counterparts'.

Whether a career interruption affects fertility also depends on partners' *parental status*. For most couples, the first birth decision is generally about whether to have a child "now or later"

(Kravdal, 2002) so the decision of parenthood could be taken irrespective of a temporary income loss (Hofmann & Hohmeyer, 2013; Kreyenfeld, 2010), while higher order births are often seen as optional (Özcan et al., 2010) and driven by motives other than commitment (Griffith et al., 1985) and transition to parenthood (Vikat et al., 2004). Another view predicts that employment instability matters less for second birth as opposed to higher-order parity, given that individuals who transition to parenthood late usually face stronger time constraints and need to proceed fast with their fertility plans to provide a companion for their first child (Kreyenfeld & Andersson, 2014).

Hypothesis 4. We hypothesize that job loss is likely to push higher order births down more than first and, to smaller extent, second birth.

Workers generally experience higher uncertainty in the labor market at younger *age* and are more likely to incur in nonstable employment after a job loss, when "human capital accumulation is crucial" (Adserà, 2011, p. 6) and the potential for good career prospects is more tangible (Del Bono et al., 2012). Therefore, young workers are more likely to be affected by a job loss and a potential career interruption. On the contrary, we expect workers in their mid-30s and older, particularly women, to respond with no or a weaker decrease in fertility than younger couples. Therefore:

Hypothesis 5. We expect the fertility of younger women, in their 20s and early 30s, to be hit more severely than older counterparts'.

Country context

A couple-level approach highlights how couples implement their family planning after a job loss, given penalties and buffers shaped by the welfare state. Our analysis compares two countries with different labor market institutions and work–family reconciliation policies (Neyer & Andersson, 2008). Germany is characterized by a male-breadwinner state with relatively high level of labor market protections (Esping-Andersen, 1999), which have been reformed since the early 2000s; the United Kingdom is a liberal welfare regime with larger private care system and less job-related buffers (Esping-Andersen, 1999). These differences make the two countries interesting to compare.

In the German welfare system, unemployment benefits are proportional to predisplacement earnings and have historically preserved the economic status of the displaced worker. However, the labor market reforms "Hartz" in 2003–2005 implied a stronger conditionality of transfers (Eichhorst et al., 2010) and a reduction of replacement income for most recipients (Hofmann & Hohmeyer, 2013). Britain's welfare state has an antipoverty focus and provides lower unemployment insurance benefits (Clasen & Clegg, 2011). Unemployed individuals thus depend to a greater extent on means-tested benefits such as the jobseeker allowance (Clasen & Clegg, 2011). Consequently, unemployment transfers are more generous and longer in Germany (replacement rates are 60%, 67% for parents, usually for 12 months) than in the United Kingdom (34% for 6 months on average; OECD, 2020).

Weaker income protection in the United Kingdom may be compensated by a more dynamic labor market that provides unemployed workers with better prospects to job resumption. The British labor market has higher turnover rates that result in less long-term unemployment (Carrillo-Tudela et al., 2016). Indeed, while the unemployment rates did not differ much over the last two decades in the two countries (higher in Germany and lower in the United Kingdom), the incidence of long-term unemployment was substantially lower in the United Kingdom (OECD, 2020).

In Germany, women are exposed to the risk of economic dependence due to the taxation design (DiPrete, 2002) and part-time employment incentives (Bardasi & Gornick, 2008), which reflect the legacy of the female homemaker/male breadwinner model (Mätzke & Ostner, 2010). The British regime is less likely to reproduce a gender-based division of labor, as the individual-based tax system promotes a dual-earner model. However, the by-product of tax incentives and limited support is the likely origin of high prevalence of couples in low-paying jobs and precarious employment (Schmitt, 2012b).

The welfare provisions for combining full-time employment with raising children differ. In Germany, childcare coverage in full-time public daycare has been guaranteed to virtually all children aged 3 and older since 1996 (Schober & Spieß, 2015), which is a legacy of past East German policies (Zoch & Hondralis, 2017). In the United Kingdom, early education and early-years care are almost entirely private and frequently employer-funded. Part-time childcare entitlements, which were instituted in 1998 for all 4-year-olds and then extended to 3-year-olds by 2010, are state-funded only for low-income families (Lewis & West, 2017).

Germany has provided generous maternity leave arrangements since 1992 (Schmitt, 2012b). Parents are granted flat-rate benefits up to 3 years. These reforms have probably reduced women's incentives for job resumption, also after displacements (Gangl & Ziefle, 2009; Hofmann et al., 2017). In the United Kingdom, the 18-week paid maternal leave with reinstatement rights and flat-rate payment was extended to 26 and then 39 weeks in 2003 and 2007, respectively (Birkett & Forbes, 2019; OECD, 2022), while the take-up of the 2-week paid paternity leave, introduced in 2003, remains low (Birkett & Forbes, 2019).

This comparison suggests that the mechanisms at play in fertility may differ in the two countries. In both societies, the burden of raising children is borne primarily by mothers (Hook, 2010; Hook & Paek, 2020; Killewald & García-Manglano, 2016), which assigns to women the key role in a couple's decision to have a(nother) child (Doepke & Kindermann, 2019). However, women's footprint in the labor market is greater in the United Kingdom (Cipollone et al., 2014; Hook & Paek, 2020) and so is the relative contribution to domestic income (Gangl & Ziefle, 2009; Musick et al., 2020). Still, income protection is paid out for a shorter period, job protection is weaker, and family reconciliation services are less universal in Britain. This leads us to expect that a job loss brings about more stress and economic hardship in the United Kingdom, especially for the least protected categories of workers.

DATA AND METHODS

Our analyses use population-representative household panels providing yearly data on individuals and households: the German SOEP in Germany, the BHPS, and the UKHLS or "Understanding Society" in the United Kingdom. One advantage of these surveys is that the wide spectrum of personal trajectories in unions pairs up with detailed information of work histories: this allows us to map out men's and women's fertility along with household-level characteristics to inspect sample subgroups. Second, the survey reports the reasons of the displacement and allows us to identify *involuntary* and *unanticipated* job losses, thus reducing reverse-causality bias. Third, these panel data display a rich set of predisplacement characteristics based on which we can combine displaced and nondisplaced workers (see next paragraphs).

Sample

We constructed a couple-year dataset from 1991 to 2020 for both countries. Our analytical sample includes all heterosexual couples who meet the following requirements: (a) the partners live in the same household for at least three waves; (b) both partners are 18 or older, and the man

(woman) is 50 (45) or younger, in order to include individuals who were in fertile age; (c) at least one partner is in the labor force; (d) at least one partner has been employed for 1 year or more. We also excluded couples with a self-employed male (female) when investigating the impact of a male (female) job loss. We also did not consider spells of job detachment of workers employed in agriculture because of the high prevalence of seasonal jobs in these sectors, in line with Hofmann et al. (2017). Table A1 displays in detail the sample restrictions in both countries. We obtained 15,029 couples for Germany and 15,932 for the United Kingdom (sample of origin in Table W.8). Table A1 also shows the characteristics of the sample: 23% of couples in Germany gave birth to a child in the observation period compared with 26% in the United Kingdom. The incidence of job loss is higher in the United Kingdom where we observe an episode of job loss for 18% of couples as compared with 14% in Germany.

Treated and control couples

The sample consists of couples who experienced a job loss (henceforth "treated group") and couples who did not ("control group"). A couple is treated if at least one partner is hit by an *involuntary* and *unanticipated* job loss in a specific year. A job loss is an involuntary job termination that occurs when workers are fired or laid off, "where layoffs occur as a result of firms downsizing, restructuring, closing plants, or relocating" (Brand, 2015, p. 360). The control group is made up of couples whose working status remained stable and did not experience any episode of job loss (e.g., two continuously working partners, one partner in the labor market and another out of the labor force). In this design, couples who are treated in year t can be part of the control group before year $t-2$ (see Table W.3). Also, we did not consider individuals who left a firm voluntarily as treated but rather as a part of the control group, because they might have transitioned to nonemployment to become parents, in line with Hofmann et al. (2017, p. 941). Following Upward and Wright (2019) and Voßemer (2019), we also described attrition and missingness over time. Figure S1 shows that the level of unit and item nonresponse are very similar for the treatment and controls groups.

Main dependent variable

Our main dependent variable is the birth in heterosexual co-residential couples for 5 years after the job loss. To ease comparability with Germany, where reliable data are available only for live births, we rule out pregnancies ending as stillbirths or interrupted by miscarriages/abortions in the analyses of the United Kingdom (we also performed robustness tests with conceptions in place of births). Hence, to avoid reverse causality, we made sure that pregnancy started at least 1 month after the episode of job loss, by subtracting 9 months from the date of birth (see also Del Bono et al., 2012).

Explanatory variables

Our key independent variable is an episode of involuntary job loss, defined as experiencing a "mass layoff" or a "plant closure" in Germany, or being "redundant" or "dismissed" in the United Kingdom. Individuals who leave their job, and those whose temporary contract ends, are not technically displaced from their workplace; hence, they are not considered "reated." We adhered to previous literature that has already addressed the distinction between voluntary and involuntary job loss for the British (Borland et al., 2002; Doiron & Mendolia, 2011; Upward & Wright, 2019) and German data (e.g., Kassenboehmer & Haisken-DeNew, 2009). Our measures of job loss were

self-reported rather than drawn from administrative register and they may suffer from recall bias. Also, it is possible that some of the work displacements that we observed were not exogenous to the individual (Upward & Wright, 2019): some workers might be more likely to get fired because of personality, others might set out to get fired rather than quitting to receive a compensation.

Moderators

To investigate the heterogeneous effects, we run separate regressions where the job loss dummy is interacted with subgroup indicators: couple's income, partners' earnings division, parental status, and woman's age. All these measures are based on a 1-year lag to avoid reverse causality. Partners' incomes were deflated by the consumer price index measured in 2010, summed and ranked in year-specific earning quantiles from 1 ("Couple is in the bottom earnings' rank") to 100 ("Couple is in the top earnings' rank"). The linear and quadratic terms are included in the model. Likewise, partners' relative earnings are ranked in quantiles and range from 0 ("Woman uniquely contributes to a couple's earnings") to 100 ("Man uniquely contributes to a couple's earnings"). Here too, a linear and quadratic term fit the model. Finally, we interact the effect of job loss with a three-category proxy of parental status (childless couple, parents of one child, parents of at least two children), and with another capturing the age of the woman (a continuous variable ranging from 18 to 45 with a linear, quadratic and cubic term).

Other covariates

The variables used as controls include, for each partner, age (linear and quadratic), education (3 categories), ethnicity (9 categories), tenure (3 categories), sector of employment (5 categories, Germany only), number of employees in the firm (10 categories), and social class (6 categories). On the couple level, we include the presence of shared biological children (dichotomous), prior-union children (dichotomous), being married (dichotomous), partnership's duration (6 categories, UK only), partners' labor force participation in the previous year (2 categories). We further use an indicator for assortative mating, the difference in partners' age (3 categories), which possibly increases couple's stability. Eventually, we control for the yearly region (NUTS-1) unemployment rate, and region and year fixed effects. All these variables are lagged by 1 year to attenuate reverse causality bias. We display these characteristics for the treated couples and their counterfactuals in United Kingdom (Table W.1) and Germany (Table W.2). The covariates of the first-stage logit equation are displayed in Tables W.4 and W.5.

Model

The treated couples may differ from the untreated ones in terms of skillset and other characteristics. For example, couples with two working-class partners could be more likely to lose their job and less inclined to have a family than a couple with a manager. Although nonvoluntary job loss approaches an exogenous event (Brand, 2015), the risk of experiencing such an event could differ across couples, be associated with other characteristics and with the family plans. So, even the effect of a job displacement on fertility could be biased in a research design, which does not take the potential endogeneity of job loss into account.

    We use workers' nonvoluntary job loss as a treatment-inducing exogenous event, in the same fashion as Hofmann et al. (2017). This design is a quasinatural experiment in which the treatment (a job loss) is assumed conditionally independent of the couple's childbearing decision after controlling for individual and couple-level information.

We use a linear probability model as a baseline specification to estimate the effect of a job loss in year t in couple c on the probability of having a birth $y_{cgt} = P(\text{Birth}_{cgt} = 1)$ and on other selected outcomes (see next paragraphs):

$$y_{cgt} = \alpha + \delta T_{cgt} + \gamma X_{cgt} + \varepsilon_{cgt}$$

where time interval $t = [1, 5]$ refers to the number of years after a job loss. The treatment indicator T_{cgt} is a dummy variable equal to 1 if individual $g = \{\text{male, female}\}$ in couple c has been hit by involuntary job loss. δ corresponds to the causal effect of experiencing a job loss on the outcomes. X_{cgt} is a vector of controls capturing couple and individual characteristics. Standard errors are clustered by couple.

We also use IPW estimators to correct for couples' unequal selection into job loss (Mansournia & Altman, 2016). This method is based on two steps. First, we constructed the weights from a logit model which estimates the probability of being hit by involuntary job loss. Each couple was then assigned a weight based on the probability of being treated: $\widehat{p}_{cgt}$. The treated couples were assigned a weight equal to 1, whereas the counterfactual couples are given $w_{cgt} = \widehat{p}_{cgt}/1 - \widehat{p}_{cgt}$. The estimation method aims to detect the average effect of being treated in the sample of the treated by regressing y_{cgt} on the treatment T_{cgt} applying couple-level weights (see Hofmann et al., 2017; Morgan & Winship, 2015).

Figure 1 shows the proportion of male and female partner being into the labor market in each year before and after the episode of job loss. The treated group consists of couples with a treated partner and the control group is a weighted sample of the couples with an untreated partner who was employed. By construction, all the control couples have at least a working partner 12 months before the reference year ($t = 1$). The figure highlights very small differences between treated and untreated cases in employment trends before the reference year: displaced and nondisplaced workers' employment rates are comparable in $t = [-2, 0]$, which lends support to the hypothesis of observably similar prejob loss characteristics.

In the models used for the main analysis, we assume time-invariant effects of job loss over the time window of investigation. However, there is a possibility of different treatment effects in periods with high and low unemployment rates. We therefore provide an additional analysis by estimating the effects of job displacement on fertility vary by economic cycle (Supporting Material S1). We use an IPW estimator to address the time-varying effect of job loss in periods of economic expansion and recession, in keeping with Hofmann et al., 2017. These estimates compare the fertility rate over time between (a) couples who experienced a job loss and comparable couples who did not in periods of economic upturn; and (b) couples who were hit by a job loss and their control group during recessions.

Finally, the main analysis does not explore the mechanisms linking job loss and fertility. However, the rich data allow us to examine the gendered response of intermediate outcomes, or proxies of "scarring effects," such as family income, re-employment chances, well-being, and partnership stability; thereby enabling us to shed light on the potential mechanisms through which a job loss may affect fertility (Supporting Material S1).

RESULTS

We first tested whether job displacement decreases the cumulative probability of a birth for 5 years. Table 1 presents the main OLS and IPW coefficients for the two countries. Figure 2 displays the predicted probabilities of the cumulative risk of birth for the control group (blue circle) and the treated group (red square) in case of woman's (left panel) or man's (right panel) job loss from the IPW model. The full regressions with the other controls are shown in Tables W.6 and W.7.
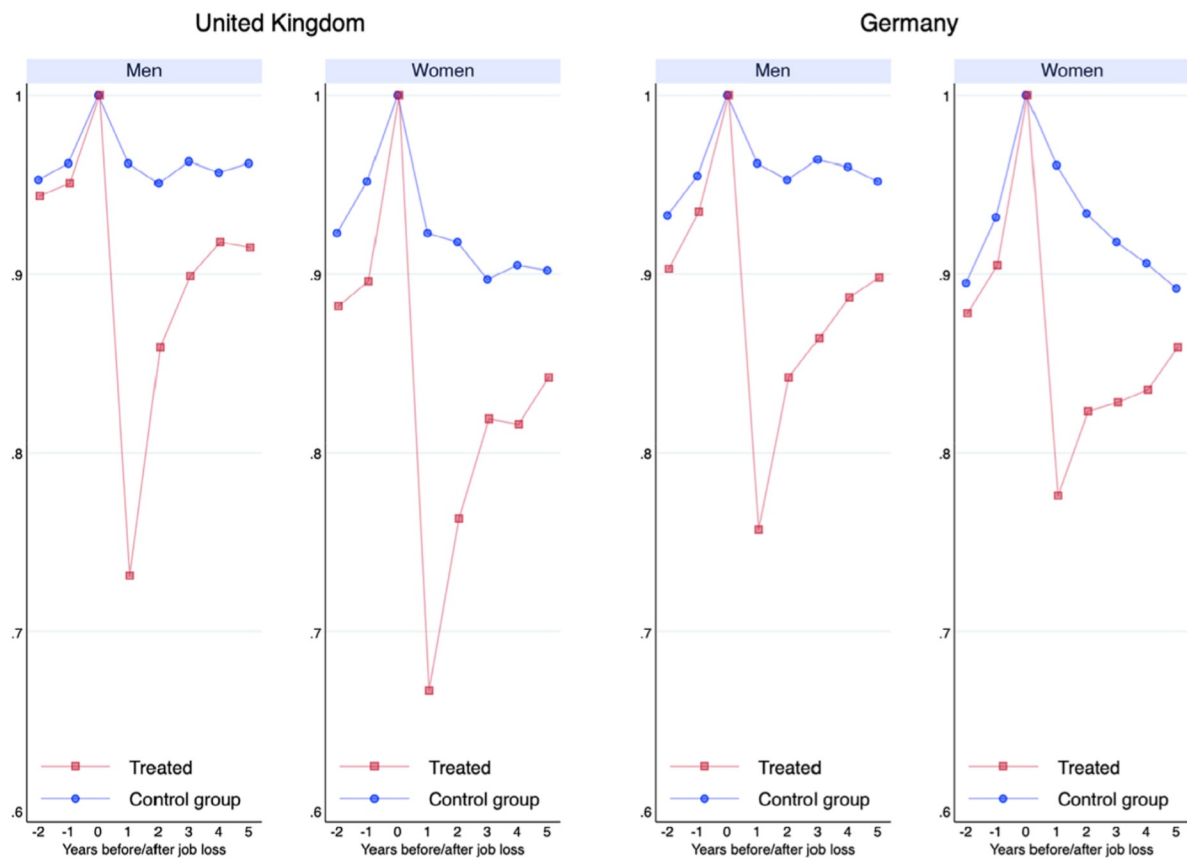
FIGURE 1   Shares of employment by gender before and after an episode of job loss.

We found a significantly negative impact of losing one's job on the probability of birth for the treated couples in OLS and IPW estimates compared with the control group. The estimates revealed that couples in which women lost their job were less likely ($p < .05$) to have a child within 5 years from job loss than similar couples reporting no job displacement in both countries. Conversely, male job loss is less likely to affect fertility in the observation window although the effect was found significant in the year of job loss in both countries. The magnitude of the impact of job loss resulted stronger in IPW models, mostly in the United Kingdom. It is reasonable to interpret this as an attenuation of the bias when accounting for selection in treatment.

This result led us to our hypotheses which expected a negative impact of men's job loss and an ambiguous effect of women's. The gendered effect was clear in both countries and defied the hypotheses. An episode of job loss for women led to a large decrease in the likelihood of birth. In the United Kingdom, the couples in which the women lost their job had an estimated probability of a birth equal to 2% in the first year (T_1), 3.3 percentage points less than the control couples. The cumulative effect increased to 4.3 percentage points after 5 years (T_5). The cumulative probability of birth was 22% lower than the average couple with a nondisplaced working woman in T_5. In Germany, we found a significant impact of women's job loss too. The effect was negative and statistically significant ($p < .05$) in the year of job loss (T_1). The probability of birth of couples with a woman losing her job fell by 3.3 percentage points from 4.5% predicted for the control group. After 5 years, the cumulative probability of birth was 13%, 2.7 percentage points lower than the counterfactuals' estimated probability in the same period. Although we could not observe completed fertility for all women in our sample, the effect was so large and

TABLE 1 Cumulative probability of birth after a job loss.

	Women's job loss					Men's job loss				
	LPM		IPW			LPM		IPW		
Years	β	SD	β	SD	N	β	SD	β	SD	N
United Kingdom										
1	−0.03***	0.01	−0.03***	0.01	69,687	−0.02***	0.01	−0.02***	0.01	84,103
2	−0.03***	0.01	−0.03***	0.01	63,312	−0.02***	0.01	−0.02***	0.01	76,409
3	−0.04***	0.01	−0.05***	0.01	57,565	−0.02*	0.01	−0.03***	0.01	69,473
4	−0.04***	0.01	−0.05***	0.01	52,314	−0.01	0.01	−0.02†	0.01	63,137
5	−0.03**	0.01	−0.04***	0.01	47,514	−0.01	0.01	−0.02†	0.01	57,343
Germany										
1	−0.02***	0.01	−0.03***	0.01	62,526	−0.02***	0.01	−0.02***	0.01	76,900
2	−0.02***	0.01	−0.03***	0.01	57,181	−0.01†	0.01	−0.01	0.01	70,128
3	−0.04***	0.01	−0.04***	0.01	52,334	−0.01	0.01	−0.00	0.01	64,062
4	−0.03**	0.01	−0.02	0.02	47,874	−0.01	0.01	−0.00	0.01	58,448
5	−0.03**	0.01	−0.03	0.02	43,768	−0.01	0.01	0.00	0.01	53,332

Note: All controls included coefficients and standard errors, significance levels: †, 10%; *, 5%; **, 1%; ***, .1%.
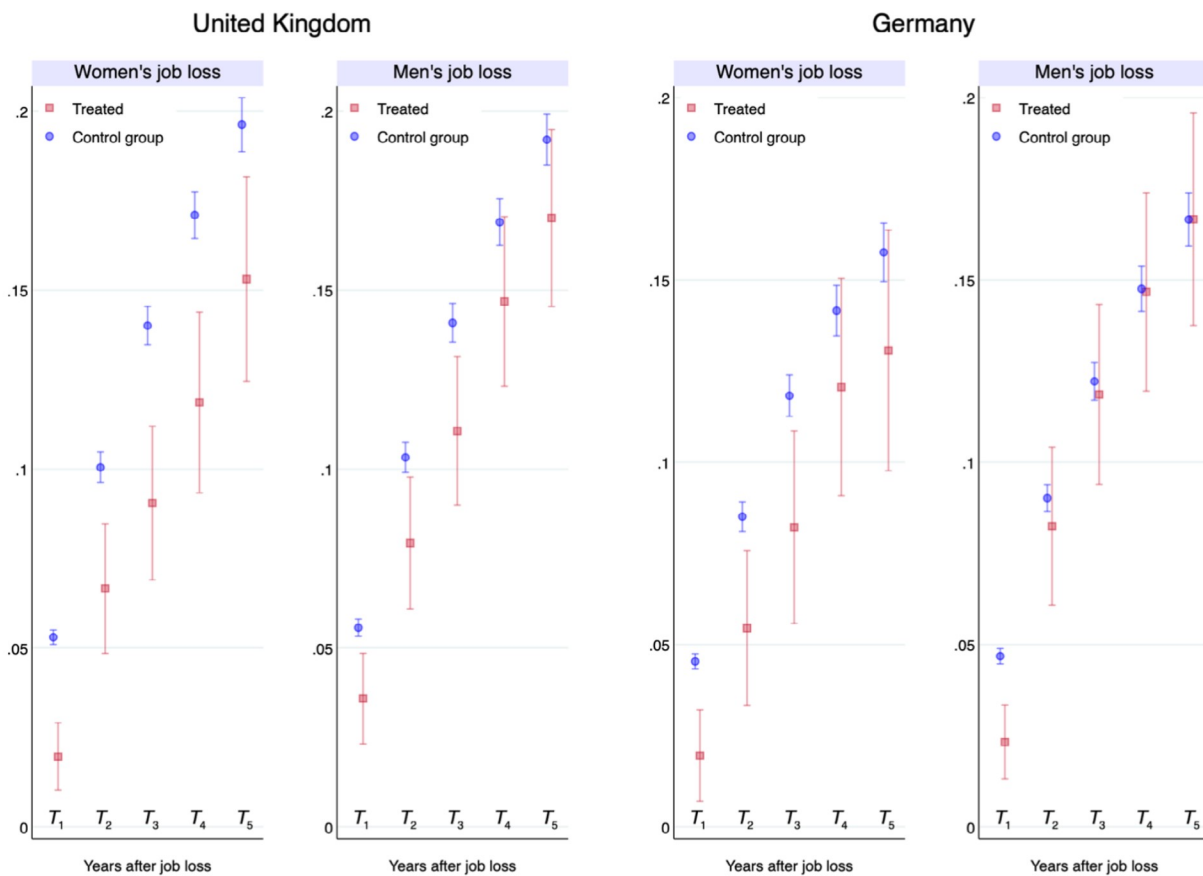Abbreviations: IPW, inverse probability weighting; LPM, linear probability model.

FIGURE 2 Effect of job loss on cumulative probability of birth. inverse probability weighting model. Annual predicted probabilities.

persistent that it seemed unlikely to be entirely reversed later. Thus, the results do not seem compatible with a pattern of fertility postponement.

Male job loss has a weaker effect on cumulative fertility in both countries. It was apparent in T_1 before waning and becoming statistically nonsignificant in the subsequent 3 years. In Germany, there was virtually no difference in the cumulative risk of birth between couples with displaced and nondisplaced male workers from T_2 onwards. In the United Kingdom, the treated and counterfactual couples experienced significantly different risks of birth ($p < .05$) up to T_3, but the point estimates in T_5 were 2.2 percentage points apart (19.2% vs. 17%). These results partly contradicted *Hypothesis 1a*, which postulated a marked negative effect of men's job displacement, and *Hypothesis 1b*, which predicted an uncertain effect for women's job loss. It is female labor market shock bringing about the more consequential and long-lasting effects on fertility.

In additional analyses, we examined the immediate effect of his or her job loss on some proxies of "scarring effects," all potential mediators of fertility: re-employment chances, couple's income, personal well-being, and partnership stability (see Supporting Information S1). Further, we showed whether the effect of job loss differed by the economic cycle in the two countries (also in Supporting Information S1). Prior studies highlighted that the macroeconomic conditions play a role (Hofmann et al., 2017). Job loss is more detrimental for fertility during economic downturns because the displaced partners might experience more difficulties finding a new job than in an economic expansion (e.g., Gangl, 2004). However, it is uncertain whether the influence of the macroeconomic context is attenuated in labor markets where job
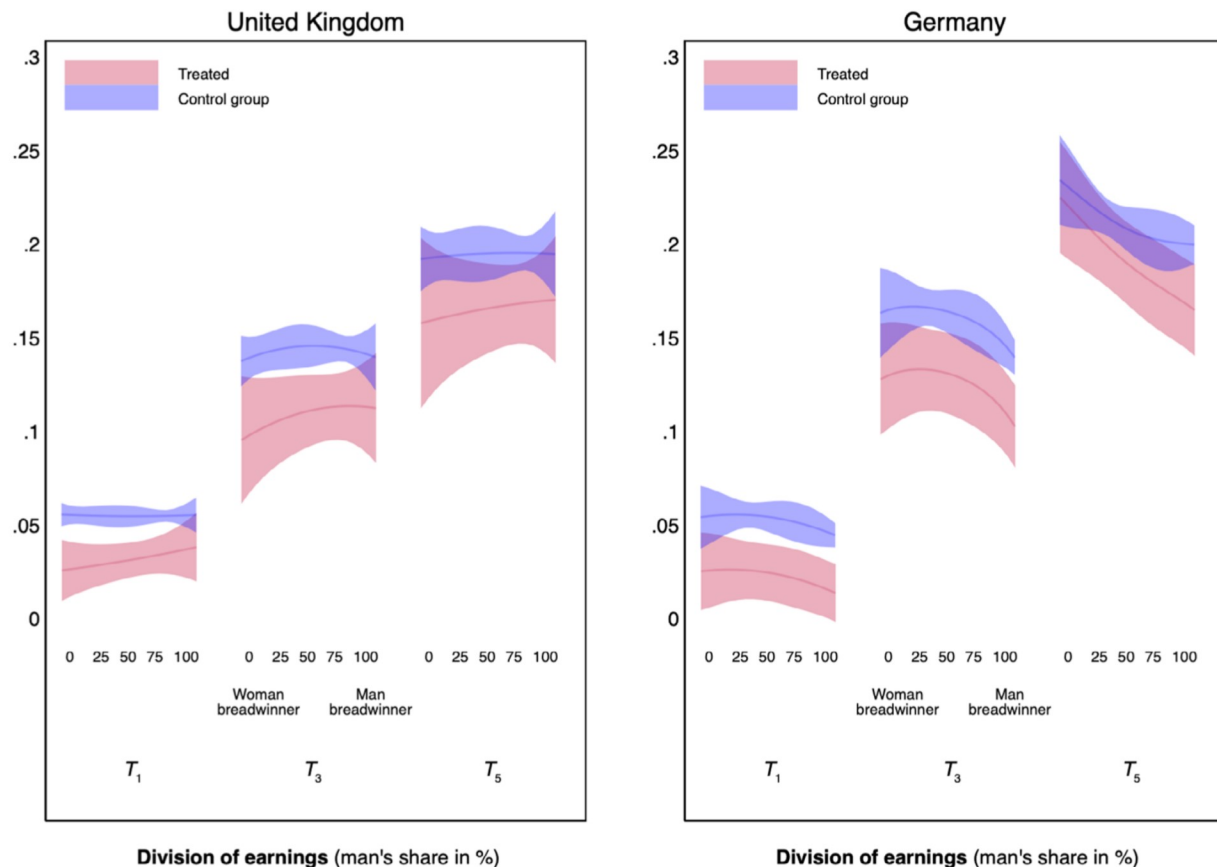
FIGURE 3 Effect of job loss on cumulative probability of birth. Annual predicted probabilities by partners' earnings shares.

finding rates are higher, such as the United Kingdom (Carrillo-Tudela et al., 2016; Hobijn & Şahin, 2009).

We complemented the main analyses with a series of robustness tests (available upon request). We investigated the risk of birth before either the male or female partner experienced a spell of job loss, in a "placebo test." We separated the effect of voluntary from that of anticipated job loss to check if our main indicator of job loss approximated a source of exogenous job loss. Also, we restricted the analysis to couples where both spouses were employed and for the episodes of post-job loss unemployment lasting more than 2 months. Eventually, we replicated the analyses with an alternative outcome—the risk of conception—in the United Kingdom. In general, all these tests confirmed the main analyses and supported our model assumptions.

Effects by subgroups

We tested the remaining hypotheses by assessing whether the effect of a job loss on fertility varies by subgroups. The results present the cumulative birth rates for the control and the treated groups by couple earnings division (Figure 3), income (Figure 4), birth order (Figure 5), and woman's age group (Figure 6). The IPW coefficients are displayed in the Supplementary Information S1. For these analyses, we no longer distinguish whether men or women lost their job. The continuous lines, in blue and red, describe the point estimates of the control and treated group, respectively. The red (blue) area captures the 95% confidence interval bands for the predicted probabilities of control (treated) group's fertility. The overlapping areas, in lilac, highlight the groups for which no statistical difference was found.
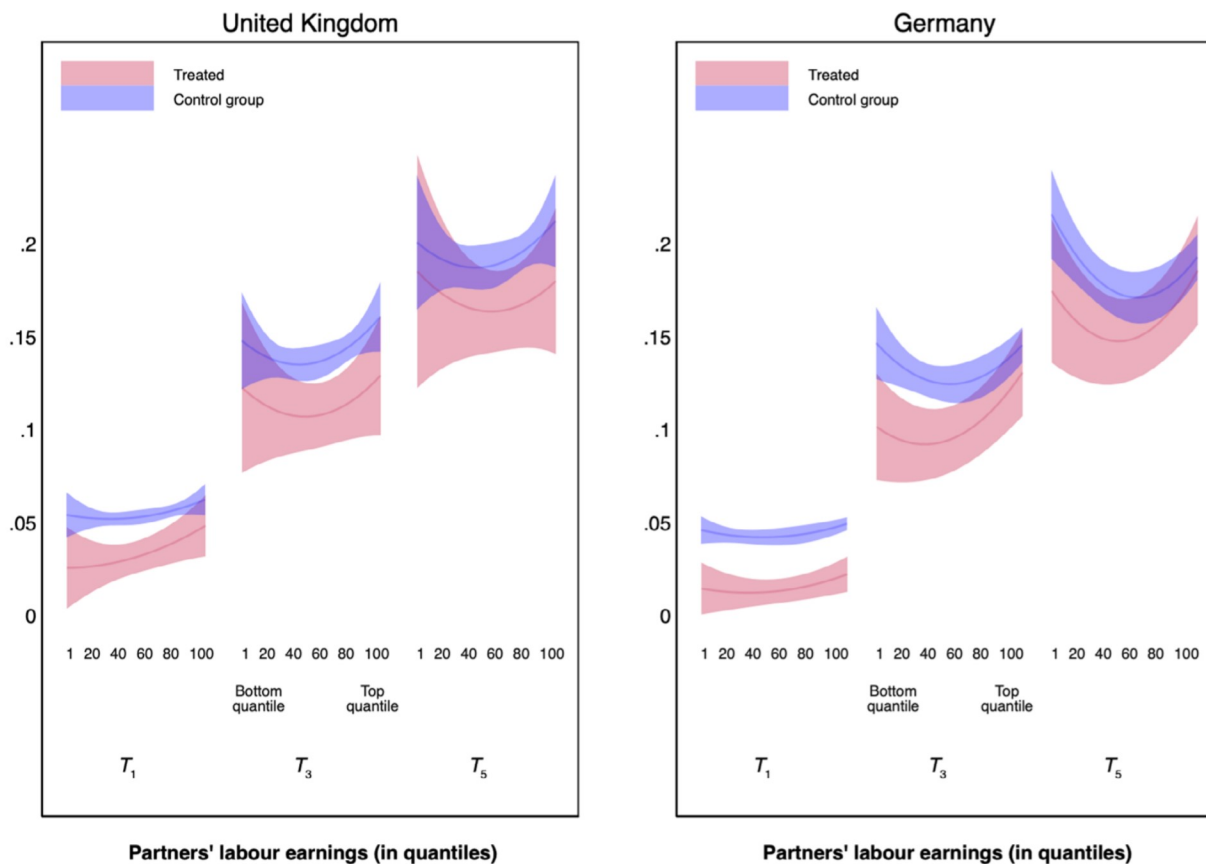
FIGURE 4 Effect of job loss on cumulative probability of birth. Annual predicted probabilities by income.

In Figure 3, we display how fertility responds to a partner's job loss by the earnings division within the couple (Hypothesis 2). In the United Kingdom, we found that egalitarian couples and female breadwinner couples systematically reduced their fertility by a significant margin for at least 3 years. In contrast, in Germany a clear gap between treated and control groups emerged for all but female-breadwinner couples in T_1 and T_3. More in detail, male-specialized couples (where man's share of earnings nears or is equal to 100%) seemed to respond most sensitively to a job displacement, which marginally persisted at T_5.

We tested *Hypothesis 3* by assessing whether the effect on birth rates varies by household income (Figure 4). The fertility of middle-income couples decreased more compared with low-income and high- income couples, following a clear "u-shaped" pattern in both countries. Despite a larger fall in T_1, the lower income quantiles caught up with the childbearing of their counterparts in the same income group continuously employed. In contrast, the fertility gap caused by job loss remained statistically lower ($p < .05$) for the treated couples between the 40th and the 75th percentile at T_3, before turning statistically nonsignificant at T_5. In Germany, the treated couples in low and middle quantiles (10th to 55th percentiles) saw their rate of birth go down more clearly by T_3. However, the effect became statistically nonsignificant at the end of the observation window.

Hypothesis 4 implied that the effect should differ by parental status and number of children (Figure 5). In Germany, the couples who already had one child saw their chance of childbearing fall by 4 and almost 6 percentage points in T_1 and T_5, respectively. In contrast, childless couples' fertility was not significantly hampered after 3 years from the shock. In the United Kingdom, instead, the impact of job loss was statistically significant in the whole period of analysis for childless couples ($p < .05$) but not for the couples with one child. In other words, the longer term probability of a first birth was almost *inelastic* to a job loss in Germany but
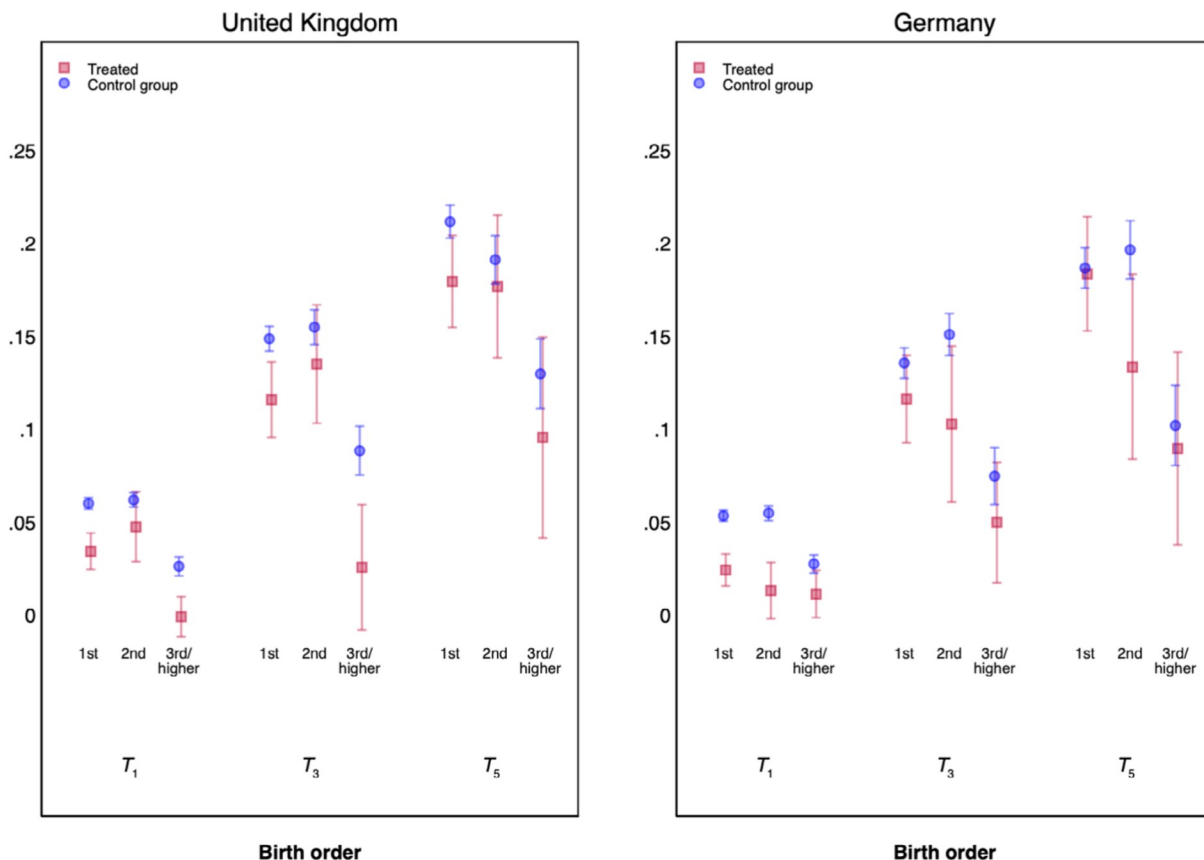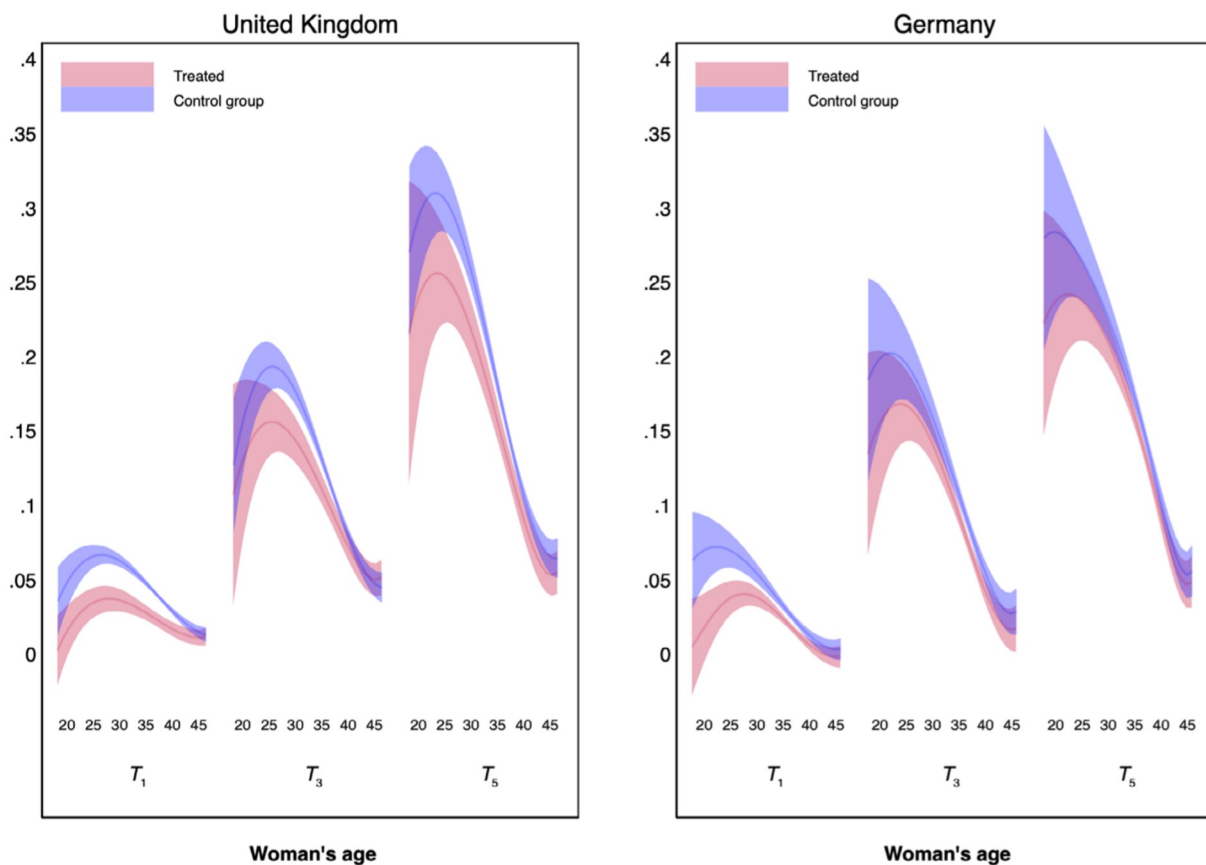

FIGURE 5   Effect of job loss on cumulative probability of birth. Annual predicted probabilities by birth order.

FIGURE 6 Effect of job loss on cumulative probability of birth. Annual predicted probabilities by woman's age.

severely affected in the United Kingdom. The probability of a 3rd or higher birth was not affected by a job loss in Germany in the midterm, while it was hampered for at least 3 years for two-child parents in the United Kingdom.

Finally, we inspected the impact on fertility across women's age (Figure 6). Women up to 35 were relatively more affected in Germany, while in the United Kingdom the fall in fertility was more equally spread out across ages, in T_1. However, a persistent gap emerged between the control and treated groups with women in their mid-20s up to their late-30s in the United Kingdom. Here, we found a statistically significant reduction in the chances of a birth for at least 5 years. In Germany, the gap between treated and untreated in the mid-30s persisted statistically significant up to 3 years at least. Older women were the least affected in both countries and it is likely that the job loss did not translate into a strong reduction in their completed fertility. Women in their 20s and 30s might have the most to lose since they have not gained a solid tenure that could protect them from labor market shocks.

DISCUSSION

Our paper investigated whether the experience of job loss decreases the fertility in the short and medium term. If a job loss causes economic loss, uncertainty, and mental stress, it may decrease the chances of having a child. In contrast, if one of the benefits of a job loss is a temporary decrease in the opportunity cost of paid work, a job loss should increase the probability of a birth. We analyzed the effects of women's and men's job loss on birth rates, and these effects over subgroups of couples. We used sources of involuntary and unanticipated job displacement

to estimate the impact of job loss on fertility in the short and the medium term (up to 5 years). Our study tried to provide a robust answer to this question for Germany and the United Kingdom by using long-running longitudinal datasets spanning almost 30 years, which allowed us to combine a quasi-causal design with detailed information on couples. Following recent studies that have highlighted the importance of addressing partners' characteristics (e.g., Alderotti et al., 2021; Corijn et al., 1996), we focused on couples in which both partners were between ages 18 and 45 (women) or 50 (men) and had at least a three-wave presence in the British and German panels.

Our study contributed to the research on the effects on fertility by explicitly distinguishing male and female job losses. Further, this analysis focused on couples and addressed how the impact varied across subgroups. These innovations helped us to better understand the mechanisms through which job displacement affects couples' fertility behavior. Three main findings are noteworthy.

First, our estimates clearly showed that the negative effects of job loss outweigh positive effects such as reduced opportunity costs. The couples in Germany and the United Kingdom showed similar cumulative rates of birth: about 5% of the control group has a child in the first year of observation, while the cumulative probability ranged between 16% and 20% after 4 years, respectively. This probability decreased by up to 5 percentage points 5 years after a woman lost her job in the United Kingdom and Germany. This result implied that the experience of a female job loss reduced the risk of a birth by 22% in the United Kingdom and 17% in Germany in a 5-year period. Hence, rather than pointing to cross-country differences, our comparison addressed microlevel countervailing forces (income and "scarring effects" vs. substitution effect) that looked much alike in the two Western European countries under study. The analysis entailed that if any opportunity cost is reduced for the displaced partner, as hypothesized by the substitution effect, it is more than compensated for by the combination of reduced resources and cumulative disadvantage in noneconomic domains. Our results were in line with earlier studies for Austria (Del Bono et al., 2012), Finland (Huttunen & Kellokumpu, 2016), and Germany (Hofmann et al., 2017), which reported a negative effect on the risk of birth. However, they run contrary to the findings of Andersen and Özcan (2021), who did not find any negative effect on fertility after plant closures in Denmark.

Second, the probability of birth was not equally affected by a man and a woman's job loss. In both countries, female job loss was consequential as the gap in the cumulative risk of birth in five years was larger. Men's job loss had a significant and negative effect, although limited in time—especially in Germany—which partly confirmed *Hypothesis 1a*. This difference would suggest that, while the income effect is clearly relevant to explain fertility responses to job loss for men—typically the main earners—and women, the career channel, the wage penalty, stress, and the other consequences in life domains, also termed "scarring effects," might be additional explanators.

To this extent, Supplementary Material S1 showed analyses on four possible mediators of his or her job loss, all potential proxies of "scarring effects," and explored the role of the business cycle in the relationship between his or her job displacement and fertility. The results suggested that job displacement has severe and long-lasting consequences on several domains of the individuals. Women struggle more to find new employment; they more easily move out of the labor market, and they bear more severe psychological consequences than men. This pattern seems to have taken a toll especially in the United Kingdom, where the combination of earnings reductions and employment instability are relevant candidates to explain fertility postponement/fall. The economic context might also play a role. Job displacement of women, as opposed to men's, is found more detrimental for fertility in the downward phases of the economic cycle in both countries, particularly the United Kingdom, despite the higher turnout of jobs. In keeping with Hofmann et al. (2017), women tend to have more difficulties finding a new suitable match in the labor market in a recession than in an economic expansion. Although there was

no compelling evidence of the existence of "career effect" and "cumulative disadvantage" on fertility, with the data at hand, the findings were certainly compatible with this idea and clearly in contrast with the hypothesis that substitution effect applies mostly to women. Thus, this combined evidence did not confirm *Hypothesis 1b*.

Our results were in line with the analyses in Austria by Del Bono et al. (2012) and in the United States by Lindo (2010), which found women's and men's job displacement, respectively, associated with a decrease in *individual* fertility, and in Finland by Huttunen and Kellokumpu (2016), in which men's job loss was found less consequential for a couple's fertility than women's. However, our findings partly run against the evidence of a recent meta-analysis by Alderotti et al. (2021), which highlighted a positive influence of women's unemployment on childbearing. This discrepancy might have different, not mutually exclusive, explanations. Our independent variable captured an involuntary and unanticipated shock while most literature converging in the meta-analytical study displayed a range of indicators of uncertainty: from short-term contracts to unemployment (Alderotti et al., 2021).

Also, our identification through a more exogenous proxy of job loss, as *nonvoluntary* and *nonanticipated*, approached a causal approach. Most prior studies did not distinguish between *unanticipated* versus *anticipated* (and *voluntary* vs. *involuntary*) episodes of unemployment (Alderotti et al., 2021, p. 893), thus they did not generally address selectivity and endogeneity issues. For instance, unemployment generally does not imply an unanticipated displacement from the workplace. In general, people who deliberately decide to leave the workplace, let their contract expire (and receive social assistance while seeking for another job), or sign limited-time contracts are qualitatively different from one another—and from people who are involuntarily displaced from their workplace (Brand, 2015, p. 360).

Further, our findings were compatible with the depressive effect of men's unemployment on fertility, which is prevalent in the literature. The nature of men's unemployment is more likely to be involuntary, hence unexpected, in line with the role of man as the main earner in the United Kingdom and, particularly, in Germany. Finally, when we inspected an anticipated, hence less exogenous, source of unemployment, such as a contract termination, we no longer observed a negative effect of female unemployment on fertility (available upon request). Women's employment trajectories and fertility decisions are the likely outcome of work-related and family-related bargaining within the couple (e.g., Matysiak & Vignoli, 2013). Therefore, it is possible that the positive impact of female unemployment generally found in prior literature is at least partly driven by the episodes of anticipated unemployment, which couples could leverage to accommodate their fertility plans.

Third, our study confirmed the existence of heterogeneous effects. We hypothesized that middle-income and main-earner couples with younger women and with at least one child could be more negatively affected. These groups might be more vulnerable not only because they are more exposed to a job loss but also because this shock could erode more their economic position. The results did not fully confirm our expectations.

The fall in fertility was heterogeneous with respect to work specialization (Hypothesis 2). We found that dual-earner couples (in which the woman's share ranged between 30% and 50% of a couple's income) and specialized couples (in which the male partner earned a share close or equal to the couple's income) responded more strongly to the shock in Germany, for at least 3 years. Conversely, egalitarian couples decreased birth significantly more for at least 3 years, in the United Kingdom. The idea that income pooling attenuates the costs of a temporary economic loss, which should penalize the couples dependent on one partner's earnings, was not univocally confirmed. While the negative consequences on the British dual-earner couples might mirror the gendered effect of women's job loss, what remains unclear is whether male-specialized German couples assign to economic stability a more important role in the fertility decision. Previous evidence from Germany already showed that these couples could be more prone to forgo fertility in the short term because of perceived economic uncertainty

(Hofmann & Hohmeyer, 2013). Our results did not reject this hypothesis. More research is needed to clarify this mechanism.

We argued that middle-income couples have more to lose compared with other couples based on the argument that they have more economic resources to lose than their less advantaged counterparts and possess less effective coping strategies (Hypothesis 3). Conversely, low-income couples might lose less compared with higher-income couples although they are more exposed to a sudden economic shock, due to their relatively less stable job positions. These arguments fully held for Germany, where the fertility of treated middle-to-low-income couples did not catch up with that of their counterfactuals, after 3 years. In the United Kingdom the fertility plans of mid-income couples resulted impaired up to 3 years as well, but middle-to-high-income couples marginally bore the brunt of the job loss up to the fifth year. It is possible that these couples experienced relatively stronger economic losses from a shock and were not sufficiently buffered by the labor market protections.

The heterogeneous effect with respect to parental status did not go in the expected direction. The lower elasticity of first birth to a labor market shock (Hypothesis 4) was not confirmed. In the United Kingdom, couples without previous children experienced a larger drop in fertility within 5 years, whereas couples with one prior child remained virtually unaffected in the mid-term, in line with Del Bono et al. (2012). It should not be forgotten that childless couples might be more fragile and more prone to union dissolution because of external shocks (Di Nallo et al., 2022). In Germany, where the short-term fall is similar among the groups, the fertility gap persisted for the couples who could transition to their second shared birth. We explain this finding in the light that employment instability may discourage people from a second birth because the decision to have a subsequent child may be less emotionally driven and more constrained by economic necessities (Alderotti et al., 2021). However, the inelasticity of third and higher birth to job loss in Germany is a puzzle and deserves further analyses.

Eventually, the impact of job loss was also explored across women's age (Hypothesis 5). In the wake of a job loss, women from a wide range of ages were affected in both countries. However, fertility dropped in the midterm for women in occupations which led to career advancement: this effect was more evident for women between their mid-20s and late 30s in the United Kingdom, but it was also statistically significant for German women in the age range 35–40. In both countries, the effect was virtually zero for women older than 40, who might had already secured their jobs. This result mirrored Del Bono et al. (2012) for Austria. Taken together, these findings also point out the salience of impediments of the development of stable careers, such as atypical jobs or temporary contracts (De la Rica, 2005).

This study showed that a job loss does not generally offer a "window of opportunity" for childbearing but makes couples, and in particular women, more uncertain about their plans of fertility. One limitation of our study was its restriction to short-term effects on fertility behavior. Future research should shed light on the extent to which a labor market shock may translate into lower *completed* fertility of couples. A related limitation was that couple's attrition risk that is correlated with job loss could influence our results. To this extent, we compared the year-specific stay-in-sample probability following a job loss with the same probability among those who did not experience a job loss within the observation window. The differences were modest and in line with prior studies (Upward & Wright, 2019; Voßemer, 2019), suggesting that attrition was not a large source of bias.

Nevertheless, our study featured some clear contributions to the literature. First, we embraced the need for studying fertility as a decision of a couple and including both partners' characteristics (Anderson et al., 2021; Corijn et al., 1996). Second, we adopted a more casual approach by studying the consequence of a quasi-exogenous labor market shock, such as job loss. Most prior literature accounted for work or family-related predispositions and treated employment and fertility as parallel, endogenous processes (e.g., Anderson et al., 2021; Matysiak & Vignoli, 2013). Third, our study suggested that the consequences on fertility of a

nonanticipated job loss might largely differ from those investigating a range of other indicators of uncertainty (e.g., short-term contract and unemployment). Future research should more clearly identify the causes of job interruption (e.g., whether anticipated or nonanticipated) and better acknowledge the different conditions of labor market uncertainty, such as limited-time contracts, unemployment, and job loss.

Finally, this study fitted in line with recent literature that highlighted the need for considering both partners' characteristics and addressing couples' heterogeneity (e.g., Anderson et al., 2021; Hofmann & Hohmeyer, 2013). Our results showed the existence of vulnerable groups—intermediate income, dual-worker, childless couples with 25-year to 40-year-old women in the United Kingdom; low to middle income, dual-earner, and male-specialized couples with children in the Germany—who responded more strongly to job loss fertility wise. Future studies should clarify whether these findings can be generalized to other countries. Several results were not in line with our expectations. Separating couples by their earnings division, we found that British gender-egalitarian couples and not, as expected, specialized or breadwinner couples responded most strongly to the job loss by reducing fertility. Conversely, in Germany, male-breadwinner, but not female-breadwinner, couples were more exposed to the fall in fertility. Also, German couples with children responded significantly to job loss by reducing fertility (in line with Hofmann & Hohmeyer, 2013), such as the British couples *without* children. These findings call for more research on the role of labor market uncertainty in the fertility decision in interaction with other couples' socio-demographic characteristics.

Our results also suggested that greater likelihood of exposure to disruption does not automatically imply a greater response to disruption. In this sense, our results underlined that the consequences of job loss did not fall entirely on the groups that were considered by the literature as the most disadvantaged (e.g., the low income, one worker, youngest couples), but also on those who had something to lose. Thus, our evidence is compatible with recent studies which highlighted that the implications of disruptive events—including job loss—also depend on their level of expectedness and normativity (Aquino et al., 2022).

The implications for policy are twofold. On the one hand, family policies relying mainly on income support for young parents should particularly aim at protecting the labor market attachment of women hit by temporary labor market shocks: longer and better-paid unemployment benefits are possible channels for interventions, especially in the United Kingdom. On the other hand, these policies could be complemented by the provision of more affordable and universal childcare and more flexible working-time arrangements, which enable couples to redefine their work supply and accommodate childbearing.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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APPENDIX A

Below, we display in detail the formation of our analytical samples.

T A B L E   A 1   Descriptive statistics. Sample size by job loss occurrence and partnership outcome.

	United Kingdom		Germany	
	N	**Share**	*N*	**Share**
Original sample (person-years)	242,258		256,631	
Couples appearing in <3 waves	−13,363		−20,853	
Couples out of age range	−100,996		−97,021	
Less than 1-year tenure	−3953		−26,174	
Couples without any employee and working Only in agriculture	−4608		−2864	
Analytical sample (person-years)	119,338		109,719	
Analytical sample (couples)	15,932		15,029	
Any partner ever lost job	2954	0.18	2087	0.14
Ever had a child	4217	0.26	3530	0.23
No partner ever lost job and never a child	9809	0.62	10,028	0.67
Any partner's lost job and never a child	1906	0.12	1471	0.10
No partner ever lost job and ever a child	3169	0.20	2914	0.19
Any partner's lost job and ever a child	1048	0.06	616	0.04
Valid male partner's job loss[a]	2436		2010	
Valid female partner's job loss[a]	1750		1551	

[a]Job loss episodes can occur more than one time in a couple's survey history. Both partners in a couple might experience an episode of job loss. Some episodes are not accounted for because there is no information available two waves before. Table W.3 displays more details on the selection of the episodes of job loss.