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Research Article

Couples' paid work, state-level unemployment, and first births in the United States

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# Couples' paid work, state-level unemployment, and first births in the United States

#### Chiara Ludovica Comolli<sup>1</sup>

## **Abstract**

#### BACKGROUND

While most studies analyze male's and female's employment separately, this study adopts a couple-level approach to relate paid work to childbearing in the United States. In addition, building on previous studies suggesting the existence of spillovers from others' unemployment, I explore whether state-level unemployment rates moderate this association.

#### **OBJECTIVE**

First, this study investigates how couples' paid work, i.e., both partners' combination of employment, working hours, inactivity, or unemployment, is associated with first birth. Second, the study tests whether this association varies depending on state unemployment rates across the decades around the Great Recession.

### **METHOD**

Using the 2003–2017 PSID waves, the probability of a first child across couples' job constellations and aggregate labor market conditions is estimated using a linear probability model. A number of robustness checks are run, including fixed effects models.

#### RESULTS

Both men's and women's unemployment similarly lower the probability of a first birth, as does the male breadwinner model. Full-time dual-earner couples display the greatest probability of a first birth. However, rising unemployment rates greatly reduce the advantage of dual-earners compared to single-earner couples.

## CONCLUSIONS

In a context of low public support for childbearing, couples tend to rely on the paid full-time work of both partners to enter parenthood. Moreover, women's work seems as relevant as that of their partners in shaping household childbearing decisions. Aggregate unemployment attenuates these differences, reducing the advantage of full-time dual work.

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#### CONTRIBUTION

Adopting a couple-level and macro-micro perspective is critical to understanding the link between paid work and fertility dynamics in contemporary societies where women's labor market attachment is strong and labor market uncertainties are growing.

## 1. Introduction

Until the most recent recession induced by the coronavirus pandemic in 2020, the economic and financial crisis of 2008 was the most severe in advanced economies since the Great Depression of the 1930s. The Great Recession has been associated with a marked weakening of the labor market in both the United States and Europe. Unemployment rates in the United States increased and remained high for several months, and the average duration of unemployment was unusually long (35 weeks on average, Current Population Survey). Farber (2011) documents that in the period 2007–2009, 16% of people aged 20–64 reported having lost their job, and that less than 50% of them were employed again by January 2010. The rise in short- and long-term unemployment increased economic uncertainty, affecting household dynamics and family formation (Kreyenfeld, Andersson, and Pailhé 2012; Kreyenfeld and Andersson 2014).

A number of studies link the reduction in fertility rates in the United States in the last decade to the Great Recession, especially in relation to the postponement of first births (Cherlin 2013; Comolli and Bernardi 2015; Comolli 2017, 2021; Goldstein et al. 2013; Schneider 2015; Sobotka, Skirbekk, and Philipov 2011). Compared to higher parities, the transition to parenthood represents a major turning point in the life course when competing goals in different domains must be aligned (Mynarska et al. 2015; Schmitt 2021: 2). The first child is particularly time-intensive and financially demanding, in terms of both the direct expenses of raising a child and the opportunity cost of time diverted from paid work to childcare. In the United States the cost of childrearing falls mostly on the parents. Policies are built on the expectation that both parents work full-time and support themselves through the market: no national paid parental leave scheme is envisaged and most non-parental childcare is purchased in the market (Craig and Mullan 2010; Kamerman and Waldfogel 2014).

Empirical evidence shows that men's unemployment induces couples to postpone the entry into parenthood, due to the income loss and financial insecurity it generates (for the United States see Amialchuk 2013 and Lindo 2010). Results are less robust regarding women's unemployment, because of the counterbalancing effects of the income and opportunity cost mechanisms (Blossfeld and Buchholz 2009; Kreyenfeld 2010). When

women leave their job, even temporarily, to have children, their employment situation suffers much more than men's due to their role as primary caretaker and the motherhood penalty. While flexible work arrangements may facilitate the combination of work and family commitments, they also often come with wage and career penalties (Kaufman and Bernhardt 2012). Despite the negative effect of the lost earnings, for women losing a job can represent a window of opportunity for childbearing, as long as the couple can do without a second income.

Albeit recognizing that partners make employment and family decisions together (Misra, Budig, and Boeckmann 2011; Moen and Sweet 2004), evidence on paid work within couples and family trajectories is rare, due mostly to data limitations (Kaufman and Bernhardt 2012; Trimarchi and Van Bavel 2018). This paper's aim is to fill this gap by adopting a dyadic perspective on US couples' employment status. I focus on seven job constellations, based on their theoretical relevance and the number of observations: dual earners with both partners working full-time, dual earners with one partner working part-time, male/female breadwinners (man/woman employed and woman/man inactive), male/female single-earners (man/woman employed and woman/man unemployed), and dual-jobless. The first aim of the study is to investigate how moving between these working statuses is associated with the transition to parenthood in the United States.

The paper's second aim is to test whether the nexus between couples' employment status and parenthood differs across contextual macroeconomic conditions. Childbearing decisions depend not only on current conditions but also on the perception of present and future economic circumstances, and contextual macroeconomic conditions inform such perceptions (Clark, Knabe, and Rätzel 2010; Kreyenfeld 2010; Kreyenfeld Andersson, and Pailhé 2012). On the one hand, rising unemployment rates can be interpreted as a sign that there is a higher risk of job loss or of not being able to re-enter the labor market in the near future, thus increasing uncertainty about future economic prospects among both the employed and the unemployed. On the other hand, the diffusion of unemployment might make joblessness more acceptable. In that case, unemployed individuals' lower likelihood of entering parenthood might increase when unemployment is high.

Exploiting the temporal and geographical variation in macroeconomic conditions around the Great Recession, the analysis is based on the 2003–2017 waves of the Panel Study of Income Dynamics (PSID) merged with state-level unemployment rate data from the US Bureau of Labor Statistics. The probability of having a first child is estimated using a Linear Probability model. The study reveals that both men's and women's unemployment similarly reduce the chances of entering parenthood. Both partners working full-time is the paid work arrangement that most likely leads to a first birth in contemporary United States. However, rising unemployment rates reduce differences

between couples by substantially lowering the probability of a first birth among dualearners and not among others.

# 2. Background

## 2.1 Paid work and parenthood

Micro-level research on family dynamics has long been dominated by the neoclassical economic paradigm of rational action, arguing that couples enter parenthood weighing the benefits and costs based on certain fixed household preferences and a given budget constraint (Becker 1981). The model assumes that a decline in the household's income, associated, for instance, with a job loss, induces couples to postpone childbearing (income effect). Becker's model further assumes traditional gender norms and that the benefits of marriage and parenthood lie in gender specialization, with men working in labor market work and women in the home. This assumption implies that labor market losses have different effects for men and women (Durkheim 1960; Parsons 1949). Men's joblessness generates an immediate and future income decline that induces couples to delay family formation. While women's job loss also leads to an income decline, their role as provider in the family is less important than that of men and therefore the income effect is predicted to be smaller.

Moreover, childbearing entails an indirect substitution cost in the form of time taken away from paid work in order to take care of the child (opportunity cost). In the mediumto long-run this implies losses in tenure, work attachment, and career opportunities which, as women tend to be the primary caregivers, are greater for them than for men. The weaker a woman's job attachment, the lower the opportunity cost of leaving the job. Unemployment reduces this cost to zero and generates a window of opportunity for having a child, despite the negative effect on income. Part-time employment also reduces the opportunity cost and can be seen as a strategy to combine a second income with childrearing (Castles 2003; Engelhardt and Prskawetz 2004; Kaufman and Bernhardt 2012). However, flexible work arrangements depend more on the employer's discretion than the individual's choice and part-time jobs often come at a cost in terms of wage and social benefit disadvantages and career progression penalties (McGinnity and McManus 2007). All in all, the link between women's labor market attachment and childbearing is ambiguous because the income and opportunity cost mechanisms operate against each other and it is not clear under which conditions one or the other prevails 2 (Del Bono, Weber, and Winter-Ebmer 2012; Lindo 2010).

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<sup>&</sup>lt;sup>2</sup> Starting from different theoretical premises, other theories come to similar predictions about the link between women's employment and fertility. For instance, the Second Demographic Transition (SDT) theory posits that

While constituting an essential point of departure in the theory of the employmentfertility nexus, Becker's paradigm alone is fairly limited in understanding contemporary society. First, when both female labor force participation and labor market uncertainty are high, single-breadwinner couples might be viewed as financially vulnerable due to their dependency on only one income, 3 and hence as unsuited for the entry into parenthood (Oppenheimer 1997). In a modern nuclear family system, women's employment might be viewed as a form of strategic insurance against the risk of loss of the only income in the household. During recessions, women's labor supply tends to increase in response to the higher risk of their spouse losing their job, a mechanism named 'added worker effect' (Lundberg 1985; Ellieroth 2019). Second, institutional and welfare structures moderate the nexus between women's employment and fertility by making the two spheres more reconcilable (Pampel 2001; Billari and Kohler 2004; Esping-Andersen 1990, 2009). Third, changing gender roles and labor market responses to increasing female labor force participation matter<sup>5</sup> (Esping-Andersen and Billari 2015). The United States has retained comparatively high fertility rates despite its relatively weak public support for families, likely because of flexible labor markets and more egalitarian gender norms which compensate for the scarcity of welfare transfers. The overall cost of motherhood has remained lower than in other contexts (e.g., Continental Europe) that are characterized by more generous family policies but more rigid labor market structures and more traditional gender norms (Morgan 2003).

The theoretical complexity is reflected in the heterogeneity of the empirical findings (Alderotti et al. 2021; Kreyenfeld and Andersson 2014). In Europe, some studies show that female (as much as male) unemployment is negatively associated with first births (Adsera 2005 and Neels, Theunynck, and Wood 2013 for cross-countries comparative studies; Kravdal 2002 for Norway; Matysiak 2009 for Poland; Meron and Widmer 2002, Pailhé and Solaz 2012 and Schmitt 2012 for France). However, other studies have produced weak or null findings (Gutiérrez-Domènech 2008 for Spain; Özcan, Mayer, and Luedicke 2010 for Germany), others positive findings (Andersen and Özcan 2021 for Denmark; Gonzales and Jurado Guerrero 2006 on France, Germany, Italy and Spain; Özcan, Mayer, and Luedicke 2010 for the United Kingdom; Sinyavskaya and Billingsley 2015 for Russia), and yet others divergent results depending on the women's educational level, age, or relationship status (Kreyenfeld 2010 for Germany; Inanc 2015 for the

women's growing desire for professional affirmation, self-actualization, and autonomy delays motherhood (Lesthaeghe and Van de Kaa 1986; Lesthaeghe 2020).

<sup>&</sup>lt;sup>3</sup> A male breadwinner losing his job explains most entries into dual joblessness (Härkönen 2011).

<sup>&</sup>lt;sup>4</sup> Prior to the Covid-19 pandemic recession, in which women's employment suffered the greatest losses instead (Alon et al. 2020a).

<sup>&</sup>lt;sup>5</sup> The Gender Revolution Framework (GRF) argues that the negative link between women's paid work and childbearing is explained by the incompatibility of employment and childrearing, which could be counterbalanced by greater equality in the household: once men fully share domestic labor and care, childbearing will increase (Esping-Andersen and Billari 2015; Goldscheider, Bernhardt, and Lappegård 2015).

United Kingdom; Miettinen and Jalovaara 2018 for Finland; Schmitt 2012 for Germany and the United Kingdom). In the United States, most studies find that both men's and women's unemployment is detrimental to the transition to the first child (Macunovich 1996; Rindfuss, Morgan, and Swicegood 1988). In a recent study, Yu and Sun (2018) find that the fertility response of American women to the experience of unemployment is negative for highly educated women and positive for low-educated women. In Europe, part-time employment is positively associated with the intention to become a mother, especially in countries with a high prevalence of part-time work (Begall and Mills 2011). In the United States, childlessness is much less prevalent among women working part-time – which, however, is rare (Abma and Martinez 2006).

## 2.2 Partners' paid work and parenthood

Men and women do not make employment or childbearing decisions in isolation. The assumption of a unified household preference function, in which the household is treated as a 'black box' and the dynamic of intra-household decision-making is ignored, has been widely criticized (Pollak 1985; Samuelson 1956). Childbearing decisions are made by the couple, and men's and women's employment statuses simultaneously affect these decisions. Couples' work arrangements vis-a-vis parenthood may follow a specialization pattern in which one partner increases their family responsibilities while the other increases their work commitment, or a compensatory pattern in which one partner's job loss or reduced work hours is compensated for by the solid, full-time job of the other partner. Alternatively, changes in partners' work time allocation vis-a-vis parenthood may be independent or complementary if both partners' work or family commitments increase (Killewald and García-Manglano 2016).

Empirical evidence on couples' decision-making processes shows a decline over time in gender specialization within the household (at least before first birth), coupled with a strong increase in assortative mating (Esping-Andersen 2009). Partners bargaining over family—work decisions based on their relative earnings or career prospects is increasingly the norm (Testa, Cavalli, and Rosina 2011). Partners may thus opt for a bargaining (dual-earner) model or for a more traditional (male breadwinner) or untraditional (female breadwinner) gender-specialized division of domestic and labor market work (Blossfeld and Drobnic 2001).

To the author's knowledge, there are no published studies on how couples' labor market position leads to first births in the United States, but there are a few on European countries. Vignoli, Drefahl, and De Santis (2012) show that in Italy the importance to childbearing of dual-earner couples is growing over time and that other couple job combinations tend to result in lower fertility than for dual-earners. Jalovaara and

Miettinen (2013) show similar results for coresidential partnerships in Finland where partners' dual employment encourages first births. Moreover, women's work status and income are at least as important as those of their partner. An equal distribution of employment intensity between partners also favors the transition to parenthood in Belgium (Marynissen et al. 2020). By contrast, British women's employment negatively affects the transition to parenthood, independently of men's employment (Inanc 2015), while among couples in the Netherlands, Begall (2013) finds no association between either partners' unemployment and the transition to first birth. Two recent metanalyses (Matysiak and Vignoli 2008 on Europe and the United States; Alderotti et al. 2021 on Europe) conclude that the nexus between women's paid work and fertility risks is overestimated if both partners' characteristics are not taken into consideration. Finally, the association between partners' flexible working hours arrangements and first birth tends to be positive, but the evidence is scarce and not from the United States. Kaufman and Bernhardt (2012) find that Swedish men are more likely to intend to have a first child if their partners hold a job in a workplace perceived as family-friendly, allowing for flexible working hours and working part-time.

## 2.3 Unemployment spillovers

Whether unemployment has a large or small effect on childbearing may depend on the context in which couples live, including labor market conditions. An increase in aggregate unemployment rates and job market instability signals uncertainty (Sobotka, Skirbekk, and Philipov 2011; Yu and Sun 2018) and affects individuals' perception of their working status. The economics and social psychology literature show that aggregate unemployment has spillover effects on the well-being of both those who experience joblessness and those who do not (Clark, Knabe, and Rätzel 2010). Those who have a job may suffer from rising rates of unemployment because it signals an increasing risk of becoming unemployed themselves (DeWitte 1999). Furthermore, when the labor market is highly unstable, employees tend to experience an increasing workload and feel pressure to commit to their job for fear of losing it, rather than embarking on family commitments (Clark, Knabe, and Rätzel 2010).

For the unemployed, two opposite hypotheses can be formulated. High unemployment rates signal an increasing risk of remaining jobless for a long time. However, when unemployment is very common it may buffer the stigma of joblessness and reduce the feeling of distress that is typical among those out of the job market (Clark 2003). These opposite mechanisms are defined in the labor economics literature as multiplicative vs. attenuation effects of local labor market conditions on individual-level employment status (Oesch and Lipps 2012). Depending on which of the two mechanisms

prevails, the consequences of the experience of joblessness may be more or less negative when unemployment spreads.

Empirical evidence shows an attenuation effect of aggregate unemployment on the well-being of men in some European countries as well as in the United States (Cohn 1978; Dooley, Rook, and Cataluno 1987; Oesch and Lipps 2012). However, no attenuation effect is found among women: they suffer more from their own unemployment when unemployment rates are high (Clark, Knabe, and Rätzel 2010). Comolli (2021) finds similar gender differences in a study of how aggregate unemployment moderates the association between men's and women's occupational mobility and the transition to the first child in the United States. Rising unemployment rates tend to attenuate differences in the risk of fatherhood between men in upwardly and downwardly mobile occupations. By contrast, differences among women are accentuated: higher unemployment rates increase the risk of motherhood among upwardly mobile women compared to the downwardly mobile. Other studies in the United States show socioeconomic heterogeneities in the interplay between aggregate and individual-level employment (Yu and Sun 2018), while studies in Europe offer mixed evidence. Some show that aggregate measures are even more strongly related to first births than individuals' employment (Kravdal 2002 for Norway), while others find that aggregate and individual-level employment insecurity do not reinforce each other (Lange et al. 2014 for the Netherlands).

# 3. The current study

## 3.1 Research questions, context, and hypotheses

The study addresses two research questions. First, which couple employment combination is more favorable to parenthood? Second, how do contextual factors affect this nexus between couples' labor market status and the first child? The aim of the study is to investigate the link between couples' paid work, varying labor market circumstances, and parenthood, in the context of the last two decades in the United States. The 2000s were characterized by economic growth that was interrupted by the onset of the Great Recession in 2008, which was marked by a strong and persistent instability in the labor market, followed by a very slow recovery after 2011.

Relative to other high-income countries, the United States is characterized by quite high female labor force participation, a low prevalence of part-time employment, and relatively low male and female unemployment rates. After increasing steadily during the 1980s and 1990s, female labor force participation in the United States flattened at the beginning of the century and declined during the Great Recession years. In 2019 the share

of women in the labor force was 71.7% (OECD data), higher than OECD average (68.8%) but slightly lower than in the EU28 average (72.8%). The share of employed women in part-time jobs has also been declining since the late 1990s, falling to 16.8% in 2019 (and 8.3% among men), below the OECD average of 25.4% (9.6% for men). Male and female unemployment rates have been lower than both the OECD and the EU average throughout the last decades (3.4% for men and 3.3% for women in 2019, OECD data) and even slightly lower at their peak during the recession (total unemployment at 9.1% in the United States; 10.6% in the EU, OECD data).

In terms of social and family policies, the United States scores low in international comparison. The United States is the only high-income country without a national family policy and the only one without a paid parental leave scheme<sup>6</sup> (Rubin 2016). The unpaid leave after birth is limited to 12 weeks and even workers who could afford unpaid leave and flexible working hours are often reluctant to use them for fear of being stigmatized as uncommitted to work (Gornick and Meyers 2003; Turco 2010). The provision of social and family benefits is largely left to employers and is linked to work schedules: benefits are tied to full-time employment and flexible work arrangements are discouraged (McGinnity and McManus 2007). Mothers are thus incentivized to take short leaves and return to full-time employment. Yet the share of stay-at-home-moms is relatively high: 27% in 2016, down only one percentage point since 1989 (Pew Research Center, Livingston 2018). National policies also offer minimal infant childcare assistance: services are mostly private and costly (NCES 2016). Depending on income, in 2011 the cost of childcare ranged from 6.7% to almost 40% of total family income (Desilver 2014). In fact, the share of families paying for childcare declined from 37% to 27% between 1990 and 2011 (Herbst 2018). However, compared to other contexts where childcare only covers school hours, full-day childcare tends to be the norm in the United States, making it more compatible with full-time work schedules (McGinnity and McManus 2007). The large income and opportunity cost of parenthood suggests a polarization between two alternative models of couple work arrangement that would likely lead couples in the American context to enter parenthood: on the one hand, full-time dual employment (Hypothesis 1a, H1.a), and on the other hand, the traditional male-breadwinner division of labor (Hypothesis 1b, H1.b). In addition, as the income effect results are particularly strong, both men's and women's unemployment are expected to be linked to delayed childbearing (Hypothesis 2, H2).

Regarding the second research question on unemployment spillover, two competing hypotheses can be formulated. The first hypothesis is that aggregate unemployment exacerbates the negative income effect of an actual or potential job loss, thus having a multiplicative negative effect on every type of couple (Hypothesis 3a, H3.a). The second

<sup>&</sup>lt;sup>6</sup> Several states have implemented family leave policies: California in 2004, New Jersey in 2009, Rhode Island in 2014, and New York in 2018.

is that the lower likelihood of entering parenthood in couples with a jobless partner might be attenuated by high aggregate unemployment. When local unemployment rates rise, the difference between the employed and the unemployed might be reduced, making couples with one or more non-working partners more similar to dual earners (Hypothesis 3, H3.b).

## 3.2 Data, variables, and analytic strategy

The micro data come from the 2003–2017 waves of the Panel Study of Income Dynamics (PSID), a biennial longitudinal survey that started in 1968. A single primary adult is the main respondent to the questionnaire (a man, unless the household contains no adult male). Any individual born to, adopted by, or married to a member of the original core sample becomes part of the PSID study, and as children move out of the parental house and establish their independent units they are interviewed as new heads of household. Following children as they become adults is a unique survey design that helps maintain the national representativeness, along with facilitating intergenerational studies (McGonagle et al. 2012). Demographic, educational, and labor market information are available for every member of the family, classified in terms of relationship to the primary respondent, including information on the childbearing and occupational history of both partners. Using information in the PSID on the state where the household resides, 7 I merged yearly state-level unemployment rates, retrieved from the US Bureau of Labor Statistics. The analytic sample is composed of childless individuals in heterosexual married or cohabiting couples interviewed between 2003 and 2017, in which the female partner is of reproductive age (16–49) and the male partner is younger than 60. Couples are dropped when they separate, have their first child, leave the survey, or when the woman turns 50. Out of 2011 couples, 636 had their first child during the observed period. Around half of the couples are observed only once, while some are observed multiple times (around 25% of the couples are observed three times or more, Table A.1 in the Appendix), leading to N = 4,144 observations.

The dichotomous dependent variable is equal to 1 if the couple reports having a first child in a given wave. All independent variables are measured at the previous wave, so between one and two years before childbirth, depending on the child's exact birth date. First, this time lag ensures that reversed causality does not bias estimates and, second, as the focus here is on planned pregnancies, it accounts for the lag between labor market changes, the decision to have a child, conception, and childbirth. The main couple-level

<sup>&</sup>lt;sup>7</sup> County-level information is unfortunately not freely available.

<sup>&</sup>lt;sup>8</sup> Previous studies on the US have shown that results are robust to a window between 9 and 21 months (Yu and Sun 2018).

independent variable is categorical and represents partners' dyadic combination of employment status. First, to establish the existence of a substitution mechanism and separate it from the income effect, it is crucial to distinguish between unemployment and inactivity (Ciganda 2015). Therefore, single-earner couples are divided into couples in which one partner is employed and the other is unemployed, and male and female breadwinner couples where one partner is employed and the other is inactive. Due to sample size limitations and the lower theoretical interest, inactivity and unemployment among dual-jobless couples are not distinguished. Second, the income and opportunity cost effects also differ among dual-earners depending on their working hours; therefore, couples where both partners work full-time are distinguished from couples where one partner works full-time and one works part-time (less than 35 hours per week). Due to sample size limitations it was not possible to further distinguish couples depending on whether it is the man or the woman who works part-time. The categories used thus represent couples in which both partners work full-time (dual earners FT), couples in which one partner works full-time and one works part-time (dual earners PT), breadwinners (male and female), single-earner couples (male and female), and dualjobless couples.

The aggregate-level explanatory variable is the state-level year unemployment rate (US Bureau of Labor Statistics 2020). Demographic and macro-economic conditions differ across states, sometimes sharply. For instance, in 2012, 18 states (e.g., Idaho, Kansas, North Dakota, Texas, Ohio) registered an increase in fertility rates, and these were also the states that were the least affected by the recession and where the decline in fertility in the years prior to it was already minimal or null. On the contrary, states like Arizona, Nevada, California and Florida, whose economy was affected more by the crisis, have registered the largest drop in fertility rates in recent years. In 2007 most of the states registered unemployment rates below 5%, while in 2011 the rate of unemployment in most states was higher than 6.8% and in 18 of them it was between 8.7% and 13.4%. The states where unemployment was higher in 2011 are in the West (California, Nevada, and Oregon), the Midwest (Michigan and Indiana), and the South (Tennessee, North and South Carolina, and Florida). The central states of the Great Plains were spared the major damages of skyrocketing unemployment (FED St. Louis 2013).

Other variables influence both employment status and the entry into parenthood. All models control for woman's age<sup>9</sup> (linear and mean centered) and age squared, couples' racial homogamy (categories: both partners White, African American, or Other, or interracial couples) and couples' educational homogamy (categories: both partners having at least some college or both having only a high school diploma, or only one partner having at least some college). Table 1 reports summary and descriptive statistics

<sup>&</sup>lt;sup>9</sup> Women's mean age at first birth in the sample is 27.7 years, higher than the national average of 26.3 years (2016 estimate from CDC).

of all variables included in the analyses. Table A-1 in the Appendix further presents couples' characteristics. Three quarters of the couples are married or marry at some point during the observation period. Most couples are racially and educationally homogamous: only 10% of couples are interracial and in more than half of the couples both partners have at least some college education.

**Table 1:** Summary statistics

Variable	Obs	Mean/%	Std.Dev.	Min	Max
State unemployment rate	4,144	6.592	2.217	2.7	13.9
Woman's age	4,144	32.092	8.081	16	49
Observations by waves					
2003	516	12.45			
2005	582	14.04			
2007	595	14.36			
2009	629	15.18			
2011	588	14.19			
2013	625	15.08			
2015	609	14.70			
First conception					
Childless	3,508	84.65			
Had a first child	636	15.35			
Couple's employment status					
Dual earners, both partners FT	2,200	53.09			
Dual earners, one partner PT	765	18.46			
Male breadwinner	559	13.49			
Female breadwinner	151	3.64			
Man single-earner, woman unemployed	153	3.69			
Woman single-earner, man unemployed	168	4.05			
Dual Jobless	148	3.57			
Migration					
Not migrated	3,917	94.52			
Migrated	227	5.48			
Education					
Edu homogamy: High-school	841	20.29			
Only woman at least some college	720	17.37			
Only man at least some college	393	9.48			
Edu homogamy: at least some college	2,190	52.85			
Ethnicity					
Race homogamy White	2,907	70.15			
Race homogamy Black	782	18.87			
Race homogamy Other	90	2.17			
Interracial couple	365	8.81			
Marital status					
Unmarried	776	18.73			
Married	3,368	81.27			

Source: Elaboration by the author based on PSID data. Note: All 50 US states are included.

Couples might move to a different state in search of better employment or family conditions; thus it is important to control for having migrated from one state to another

(9.6% of the couples move during the observed period, Table A-1). Since fertility is strongly linked to marital status, with married couples more likely to have children, a control for whether the partners are married or not is added. <sup>10</sup> Income variables are instead not included because they would absorb the income effect of unemployment. Permanent income is proxied by partners' education (Amialchuk 2013). Finally, dummies for survey waves (when predictors are measured) are included to model time trends in postponement of parenthood.

The probability of first birth is modeled using a Linear Probability Model (LPM) with standard errors clustered at the couple level. However, the relationship between employment and childbearing decisions is affected by a selection process. Unobserved characteristics of men and women influence both the entrance to and exit from the labor market, and their probability of having children. One way to (partially) overcome this problem is to use fixed effects models where couples are used as controls for themselves because only within-individual variation is used to estimate the effects of the covariates on the dependent variable. Since childless couples do not experience variation, they are excluded from the estimation, giving rise to a different source of bias. The fixed effects estimates indicate the time to – rather than the probability of – first birth. For this reason, fixed-effects models are reported as robustness checks in the Appendix. Additional robustness checks include a replication of a reduced sample of older women (25+) who are more likely to have completed education, and interactions between couples' employment and women's educational level to test the existence of heterogeneities across socioeconomic groups in the link between employment and childbearing.

## 4. Results

Figure 1 and Table 2 show the distribution of couples' working status combination across survey waves. In the acute phase of the Great Recession, the proportion of dual-earner couples declines from around 78% in 2007 to 65% in 2011, with most of the decline concentrated in couples where one partner works part-time. Dual-jobless couples, although remaining quite exceptional, more than triple in just two years, going from 1.7% in 2007 to almost 6% in 2009 and 5% in 2011. During the same period, traditional male-breadwinner couples increase from around 10% to 15%. Male single-earner couples in which the cohabiting female partner is unemployed are much less common but still increasing, from 3.4% to 5.6%. Female breadwinners and single-earner couples with the

<sup>10</sup> Employment status also influences the likelihood of getting married, making marital status a mediator of the association between couples' working arrangement and the transition to parenthood. The Appendix reports results without controlling for marital status.

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<sup>&</sup>lt;sup>11</sup> Logistic models produce qualitatively identical results (not shown, available upon request).

man unemployed also remain rare but they all increase: the latter more than doubles, going from 2.7% in 2007 to more than 6% in 2009. These changes over time in the distribution of couples' employment status confirm the increasing difficulties faced by households in the labor market during the years of the crisis. After 2011, full-time (but not part-time) dual earners increase again, exceeding their pre-crisis share in 2017. Table A-2 shows couples' observed employment statuses among parents (to be) and childless couples who do not have a child in the observed period. Parents tend to spend a lot more time in dual employment, especially in full-time jobs, and are much less frequently jobless or living in a single-earner couple than childless couples.

Table 2: Distribution of couples' employment status (episodes) across waves

		2003	2005	2007	2009	2011	2013	2015	2017	Total
Dual earners, both partners FT	N	256	310	324	342	282	321	330	402	2,567
•	%	50.0	53.73	55.48	55.61	49.30	53.15	54.19	59.38	54.04
Dual earners, one partner PT	N	116	123	136	81	91	110	97	97	851
	%	22.66	21.32	23.29	13.17	15.91	18.21	15.93	14.33	17.92
Male breadwinner	N	65	85	61	75	88	77	96	84	631
	%	12.70	14.73	10.45	12.20	15.38	12.75	15.76	12.41	13.28
Female breadwinner	N	31	18	17	18	20	18	28	22	172
	%	6.05	3.12	2.91	2.93	3.50	2.98	4.60	3.25	3.62
Man single-earner, woman unemployed	N	18	7	20	25	32	26	21	18	167
	%	3.52	1.21	3.42	4.07	5.59	4.30	3.45	2.66	3.52
Woman single-earner, Man unemployed	N	14	16	16	38	31	28	23	28	194
	%	2.73	2.77	2.74	6.18	5.42	4.64	3.78	4.14	4.08
Dual Jobless	N	12	18	10	36	28	24	14	26	168
	%	2.34	3.12	1.71	5.85	4.90	3.97	2.30	3.84	3.54
Total		512	577	584	615	572	604	609	677	4,750

Source: Elaboration by the author based on PSID data. Observations are person-years.

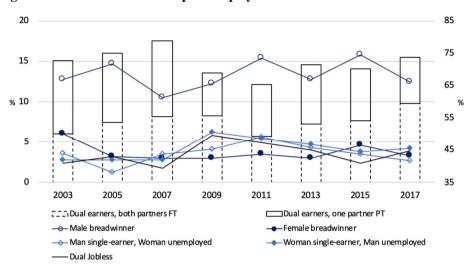


Figure 1: Distribution of couples' employment status across waves

Source: Elaboration by the author based on PSID data. Observations are person-years.

Table 3 reports the results of the linear probability multivariate regression models of the probability of first birth. All models include couples' employment status and mean-centered state-level unemployment rates. Additional models with separate individual and aggregate-level variables are presented in Table A-3. The results show that compared to full-time dual-earners, all couples' employment combinations display a lower probability of parenthood in the observed period, in line with H1.a (Model 1, Table 3). However, H1.b is not supported: changing the reference category to the traditional male breadwinner or the couples with unemployed women in fact demonstrates that the postponement of parenthood is equally likely in a male breadwinner couple and when the male or female partner loses their job (Models 2–3, Table 3). As hypothesized (H2), both men's and women's unemployment are equally associated with a lower probability of entering parenthood.

Do these differences increase or shrink at various levels of the state unemployment rate? First, on average, net of individual-level characteristics, state unemployment rates are not relevantly associated with the probability of first birth. This might be due to the indicator being measured at the state level and not at a more granular level such as the county or municipality. The interaction terms between couples' working combinations and state unemployment rates are all positive and are particularly large for dual-earners with one partner working part-time (Model 4, Table 3). With rising unemployment rates

the difference between full-time and part-time dual earner couples shrinks, as the probability of a first child in couples with one partner working part-time increases.

Table 3: Linear probability model of the probability of first birth

	Model (1)	Model (2)	Model (3)	Model (4)
State unemployment rate	-0.002	-0.002	-0.002	-0.008
Dual earners, both partners FT (Ref)	(-0.010 - 0.006) -	(-0.010 - 0.006) 0.063	(-0.010 - 0.006) 0.059	(-0.018 - 0.002) -
Dual earners, one partner PT	-0.027	(0.034 – 0.092) 0.037	(0.009 – 0.110) 0.033	-0.029
Male breadwinner	(-0.055 - 0.002) -0.063	(0.003 – 0.070) –	(-0.021 - 0.086) -0.004	(-0.0570.001) -0.066
Female breadwinner	(-0.0920.034) 0.005	0.068	(-0.058 - 0.050) 0.064	(-0.0960.037) 0.005
Man single-earner, Woman unemployed	(-0.049 - 0.059) -0.059	(0.011 – 0.125)	(-0.005 - 0.133) -	(-0.049 - 0.060) -0.063
Woman single-earner, Man unemployed	(-0.1100.009) -0.025	(-0.050 - 0.058) 0.038 (-0.014 - 0.091)	0.034 (-0.032 - 0.101)	(-0.1160.009) -0.039
Dual jobless	(-0.074 - 0.025) -0.070 (-0.1150.024)	-0.006	-0.011 (-0.075 - 0.054)	(-0.093 - 0.015) -0.071 (-0.1200.022)
Dual earners, both partners FT*State unemployment	, ,	(-0.030 - 0.043)	(-0.073 - 0.034)	-
Dual earners, one partner PT*State unemployment ra	ite			0.015
Male breadwinner*State unemployment rate				(0.002 – 0.028) 0.009 (-0.003 – 0.021)
Female breadwinner*State unemployment rate				0.001
Man single-earner, Woman unemployed*State unemployment rate				(-0.028 - 0.029) 0.008
Woman single-earner, Man unemployed*State				(-0.017 - 0.032)
unemployment rate				0.016
Dual jobless*State unemployment rate				(-0.007 - 0.038) 0.005
Migration	0.035 (-0.018 - 0.087)	0.035 (-0.018 - 0.087)	0.035 (-0.018 - 0.087)	(-0.013 - 0.023) 0.035 (-0.018 - 0.088)
Ethnicity Race homogamy White (Ref)	-	-	-	-
Race homogamy Black	-0.021	-0.021	-0.021	-0.021
Race homogamy Other	(-0.045 - 0.003) 0.052	(-0.045 - 0.003) 0.052	(-0.045 - 0.003) 0.052	(-0.045 - 0.003) 0.052
Interracial couple	(-0.031 - 0.134) 0.005	(-0.031 - 0.134) 0.005	(-0.031 - 0.134) 0.005	(-0.030 - 0.135) 0.005
Education Edu homogamy: High-school (Ref)	(-0.034 - 0.045) -	(-0.034 - 0.045) -	(-0.034 - 0.045) -	(-0.035 - 0.045) -
Only woman at least some college	-0.012	-0.012	-0.012	-0.010
Only man at least some college	(-0.041 - 0.017) -0.002	(-0.041 - 0.017) -0.002	(-0.041 - 0.017) -0.002	(-0.039 - 0.019) 0.000
Edu homogamy: at least some college	(-0.036 - 0.032) 0.049	(-0.036 - 0.032) 0.049	(-0.036 - 0.032) 0.049	(-0.034 - 0.034) 0.050
Woman's age	(0.023 – 0.075) -0.010	(0.023 – 0.075) -0.010	(0.023 – 0.075) -0.010	(0.023 – 0.076) -0.010
Woman's age squared	-0.000	-0.000 (-0.0000.000)	(-0.0110.008) -0.000 (-0.0000.000)	(-0.0110.008) -0.000 (-0.0000.000)

Table 3: Linear probability model of the probability of first birth

	Model (1)	Model (2)	Model (3)	Model (4)
Cohabiting (Ref)	_			_
Married	0.101	0.101	0.101	0.100
	(0.078 – 0.123)	(0.078 - 0.123)	(0.078 - 0.123)	(0.078 - 0.123)
2003 (Ref)	_	_	_	_
2005 `	-0.024	-0.024	-0.024	-0.025
	(-0.069 - 0.021)	(-0.069 - 0.021)	(-0.069 - 0.021)	(-0.070 - 0.020)
2007	-0.014	-0.014	-0.014	-0.014
	(-0.057 - 0.029)	(-0.057 - 0.029)	(-0.057 - 0.029)	(-0.057 - 0.028)
2009	-0.023	-0.023	-0.023	-0.020
	(-0.078 - 0.032)	(-0.078 - 0.032)	(-0.078 - 0.032)	(-0.075 - 0.035)
2011	-0.013	-0.013	-0.013	-0.013
	(-0.061 - 0.035)	(-0.061 - 0.035)	(-0.061 - 0.035)	(-0.060 - 0.035)
2013	-0.049	-0.049	-0.049	-0.049
	(-0.0910.007)	(-0.0910.007)	(-0.0910.007)	(-0.0910.007)
2015	-0.070	-0.070	-0.070	-0.071
	(-0.1110.028)	(-0.1110.028)	(-0.1110.028)	(-0.1120.029)
Constant	0.108	0.045	0.049	0.110
	(0.064 - 0.153)	(-0.002 - 0.093)	(-0.010 - 0.109)	(0.065 - 0.154)
Observations	4,144	4,144	4,144	4,144
R-squared	0.093	0.093	0.093	0.094

Source: Elaboration by the author based on PSID data. Note: Robust Confidence Intervals in parentheses (clustered for couples ID in cross-sectional models). Woman's age and state unemployment rate mean-centered.

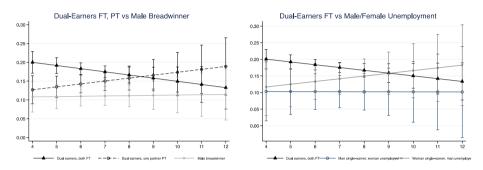
Figure 2 illustrates the predicted probability of having a first child across couple type at different levels of state unemployment rate, from very low (4%) to very high (12%). The left-hand panel shows the probability of a first birth among full- and part-time dual earners and male breadwinners. The right-hand panel instead compares the predicted probability of a first birth among full-time dual earners with single earner couples where either the man or the woman is unemployed. Dual earners and male breadwinners offer an interesting comparison, given that most couple dyads fall into these two groups. Figure 2 shows that a relevant difference between these two types of couples emerges at low levels of state unemployment rate. Here, both traditional male-breadwinner couples in which the woman is inactive and part-time dual-earners display a lower probability of first birth compared to full-time dual earners. However, at very high levels of unemployment this difference disappears due to the sharply declining probability of birth among full-time dual earners. Couples with a gendered division of paid labor are not affected by aggregate unemployment, while dual-earner couples are.

The chances of becoming parents of other types of single-earner couples are also unaffected by rising unemployment rates. I find neither a multiplicative (H3.a) nor an attenuation (H3.b) effect on either men's or women's unemployment, even though I do observe that a small advantage of dual earners over single-earners also emerges at low levels of unemployment rate. As unemployment rises the difference disappears because of the declining probability of birth among full-time dual-earners and the increasing probability of birth among single earners with the male partner unemployed, in partial

support of H3.b for men. The confidence intervals are too large to offer a clear conclusion but, if anything, the moderating effect of aggregate unemployment acts on men's own unemployment and not on women's, as previous studies suggest (Clark, Knabe, and Rätzel 2010).

Figure 2: Predicted probability of first birth by state unemployment rate.

Cross-sectional linear probability models



Source: Elaboration by the author based on PSID data. Confidence intervals at 95%,

Robustness checks indicate, first, that selecting a slightly older sample of women close to finishing education (25+) does not alter the results but the negative effect of unemployment rates on full-time dual earner couples becomes stronger, suggesting that older individuals are more strongly affected by signals of uncertainty than younger adults (results available upon request). Second, the higher probability of a first birth in full-time dual-earner couples is partially mediated by couples' marital status: couples with a more traditional division of paid work tend to be married more often than other types of couples and marriage is a strong predictor of parenthood (Model 3, Table A-3). Furthermore, the difference across couples' working statuses is only partially explained by couples' unobserved characteristics influencing both the choice of a gendered division of paid work and their probability of parenthood, as the difference between dual-earners and male breadwinners persists in the fixed effects estimates (Models 7–8, Table A-3). By contrast, for other single-earner couples with one or both partners unemployed, the association with delayed parenthood becomes negligible once unobserved characteristics are controlled for.

Investigating heterogeneities across couples' educational level (Model 4, Table A-3) demonstrates that women's unemployment and dual joblessness are particularly negatively associated with a first birth among couples where both partners are low-educated. On the contrary, the lower probability of a first birth in male breadwinner

couples compared to dual-earners is concentrated in highly educated homogamous couples. Finally, additional analyses (results available upon request) reveal that state unemployment rates are particularly negatively associated with the probability of first birth among educationally heterogamous couples in which the woman is highly educated and her partner is not.

## 5. Discussion

There are probably few events that are comparable to the recent coronavirus recession in terms of economic and labor market losses. One that is often cited is the Great Recession of 2008. An interesting early comparison of the two reveals that while in the latter (as in all previous recessions) male unemployment tended to increase the most, during the 2020–2021 pandemic recession it was women who experienced the largest job losses in terms of both unemployment and exit from the labor market (Alon et al. 2020a, b; Coskun and Dalgic 2020). It is of fundamental importance to understand how households take decisions in light of this relatively new reality of a growing female unemployment (and inactivity) rate. The current study investigates a period prior to the coronavirus outbreak, but focuses precisely on the comparison of men's and women's attachment to paid work in relation to couples' childbearing decisions.

The decline in childbearing rates registered in the United States in the last decade, as in other high-income countries, has been often associated with the dramatic deterioration of the labor market following the crisis of 2008. Studies show a negative association between unemployment and childbearing for men but mixed, context-dependent results for women. Yet most studies analyze the role of male and female unemployment separately, without adopting a couple dyadic perspective. The focus of the present study is to give an explicit account of both partners' job statuses, based on the assumption that, given the American context of weak family policies and costly childcare-related services, both men's and women's paid work is likely to be important in the decision to commit to parenthood. Following theoretical developments in economics and sociology on the spillovers from others' unemployment, this study further investigates whether contextual labor market conditions moderate the relationship between couples' job status and parenthood.

Findings show, first, that full-time employment of both partners is more likely to lead couples to have a first child compared to all other couples' paid work combinations. This remains true even net of unobserved couples' characteristics, marital status, and educational level (although it is stronger for highly educated couples). In a context of strong income effects, couples largely rely on paid work to enter parenthood. Moreover, women's position in the labor market seems as relevant as that of their partner in shaping

household childbearing decisions: both men's and women's unemployment is equally negatively associated with the transition to parenthood. Second, rising rates of unemployment tend to attenuate the difference between dual- and single-earner couples' probability of a first birth, essentially because aggregate unemployment negatively affects full-time dual-earners more than any other type of couple, and not because it attenuates the social norm of working among the jobless.

The paper suffers from some limitations. First, the estimates cannot be interpreted as causal because linear probability models could be affected by omitted variable bias and the fixed effects model only controls for couples' omitted characteristics that are time-invariant. There might be couples' characteristics that change over time and affect both job- and family-related choices that are not included in the models, such as time varying attitudes towards family and career among women. Second, here the focus is on the gendered division of paid work, while unpaid domestic work, despite being important for childbearing decisions, is left out in the interest of clarity and so as not to overcomplicate matters. For the same reason, gender role attitudes, representing another important determinant of work patterns and childbearing, are not included. Third, the study focuses on planned pregnancies, while a large share of births in the United States is still unintended (Gemmill and Hartnett 2020). Finally, it is important to acknowledge that the focus on couples, although crucial for understanding intra-household dynamics, neglects an important part of the process of family formation, namely partnership. Especially in a context of economic and employment uncertainty, part of the delay in parenthood is due to the postponement of partnership formation and its instability (Jaloyaara and Fasang 2017). Individuals with unstable careers have lower prospects in the labor market and are less attractive in the marriage market, and are therefore less likely to become parents. Thus, one can say that the estimates produced in the current study represent the lower boundary of the negative influence of employment instability on childbearing.

Despite these limitations, this article contributes to the understanding of the labor market determinants of childbearing by bridging theoretical arguments from different disciplines: from sociology to labor and family economics and social psychology. I argue that a couple perspective is critical to understanding the link between paid work and fertility dynamics in contemporary societies where the share of the female work force increasingly resembles the males' share. Moreover, in light of the situation in the United States and other countries still struggling with the coronavirus pandemic and its severe economic consequences for the economy and families, it is crucial to highlight that women's unemployment in contemporary societies is negatively related to parenthood, as is men's unemployment. The early evidence of the dramatic job losses among women caused by lockdown, coupled with evidence on the intentions to postpone childbearing expressed in the early months of 2020 in many countries (Luppi, Arpino, and Rosina

2020; Kearney and Monday 2020) hint at a similar, or even greater, fertility decline in the aftermath of the pandemic recession compared to the Great Recession.

## References

- Abma, J.C. and Martinez, G.M. (2006). Childlessness among older women in the United States: Trends and profiles. *Journal of Marriage and Family* 68(4): 1045–1056. doi:10.1111/j.1741-3737.2006.00312.x.
- Adsera, A. (2005). Vanishing children: From high unemployment to low fertility in developed countries. *American Economic Review* 95(2): 189–193. doi:10.1257/0 00282805774669763.
- Alderotti, G., Vignoli, D., Baccini, M., and Matysiak, A. (2021). Employment instability and fertility in Europe: A meta-analysis. *Demography* 58(3): 871–900. doi:10.1215/00703370-9164737.
- Alon, T., Doepke, M., Olmstead-Rumsey, J., and Tertilt, M. (2020a). This time it's different: The role of women's employment in a pandemic recession. (Working Paper 27660). Cambridge, MA: National Bureau of Economic Research. doi:10.3386/w27660.
- Alon, T., Doepke, M., Olmstead-Rumsey, J., and Tertilt, M. (2020b). The impact of COVID-19 on gender equality. (Working Paper 26947). Cambridge, MA: National Bureau of Economic Research. doi:10.3386/w26947.
- Amialchuk, A. (2013). The effect of husband's job displacement on the timing and spacing of births in the United States. *Contemporary Economic Policy* 31(1): 73–93. doi:10.1111/j.1465-7287.2011.00284.x.
- Andersen, S.H. and Özcan, B. (2021). The effects of unemployment on fertility. *Advances in Life Course Research* 49: 100401. doi:10.1016/j.alcr.20 20.100401.
- Becker, G. (1981). A treatise on the family. Cambridge, MA: Harvard University Press.
- Begall, K. (2013). How do educational and occupational resources relate to the timing of family formation? A couple analysis of the Netherlands. *Demographic Research* 29(34): 907–936. doi:10.4054/DemRes.2013.29.34.
- Begall, K. and Mills, M. (2011). The impact of subjective work control, job strain and work–family conflict on fertility intentions: A European comparison. *European Journal of Population/Revue européenne de Démographie* 27(4): 433. doi:10.1007/s10680-011-9244-z.
- Billari, F. and Kohler, H.-P. (2004). Patterns of low and lowest-low fertility in Europe. *Population Studies* 58(2): 161–176. doi:10.1080/0032472042000213695.

- Blossfeld, H.-P. and Buchholz, S. (2009). Increasing resource inequality among families in modern societies: The mechanisms of growing educational homogamy, changes in the division of work in the family and the decline of the male breadwinner model. *Journal of Comparative Family Studies* 40(4) 603–615. doi:10.3138/jcfs.40.4.603.
- Blossfeld, H.-P. and Drobnic, S. (eds.) (2001). Careers of couples in contemporary society: From male breadwinner to dual-earner families: From male breadwinner to dual-earner families. Oxford: Oxford University Press.
- Castles, F.G. (2003). The world turned upside down: below replacement fertility, changing preferences and family-friendly public policy in 21 OECD countries. *Journal of European Social Policy* 13(3): 209–227. doi:10.1177/095 89287030133001.
- Cherlin, A., Cumberworth, E., Morgan, S.P., and Wimer, C. (2013). The effects of the Great Recession on family structure and fertility. *The Annals of the American Academy of Political and Social Science* 650(1): 214–231. doi:10.1177/0002 716213500643.
- Ciganda, D. (2015). Unstable work histories and fertility in France: An adaptation of sequence complexity measures to employment trajectories. *Demographic Research* 32(28): 843–876. doi:10.4054/DemRes.2015.32.28.
- Clark, A.E. (2003). Unemployment as a social norm: Psychological evidence from panel data. *Journal of Labor Economics* 21(2): 323–351. doi:10.1086/345560.
- Clark, A.E., Knabe, A., and Rätzel, S. (2010). Boon or bane? Others' unemployment, well-being and job insecurity. *Labour Economics* 17(1): 52–61. doi:10.1016/j.labeco.2009.05.007.
- Cohn, R.M. (1978). The effect of employment status change on self-attitudes. *Social Psychology* 41(2): 81–93. doi:10.2307/3033568.
- Comolli, C.L. (2017). The fertility response to the Great Recession in Europe and the United States: Structural economic conditions and perceived economic uncertainty. *Demographic Research* 36(51): 1549–1600. doi:10.4054/DemRes. 2017.36.51.
- Comolli, C.L. and Bernardi, F. (2015). The causal effect of the great recession on childlessness of white American women. *IZA Journal of Labor Economics* 4(1): 21. doi:10.1186/s40172-015-0037-1.

- Comolli, C.L. (2021). Resources, aspirations and first births during the Great Recession. *Advances in Life Course Research* 48: 100405. doi:10.1016/j.alcr.2021.100405.
- Coskun, S. and Dalgic, H. (2020). The emergence of procyclical fertility: The role of gender differences in employment risk. (Discussion Paper 142). Mannheim: Collaborative Research Center Transregio 224.
- Craig, L. and Mullan, K. (2010). Parenthood, gender and work-family time in the United States, Australia, Italy, France, and Denmark. *Journal of Marriage and Family* 72(5): 1344–1361. doi:10.1111/j.1741-3737.2010.00769.x.
- Del Bono, E., Weber, A., and Winter-Ebmer, R. (2012). Clash of career and family: Fertility decisions after job displacement. *Journal of the European Economic Association* 10(4): 659–683. doi:10.1111/j.1542-4774.2012.01074.x.
- Desilver, D. (2014). Rising cost of childcare may help explain recent increase in stay-at-home moms. Pew Research Center. Retrievable at http://pewrsr.ch/1kGP436.
- DeWitte, H.D. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology* 8(2): 155–177. doi:10.1080/135943299398302.
- Dooley, E., Rook, K., and Cataluno, R. (1987). Job and non-job stressors and their moderators. *Journal of Occupational Psychology* 60(2): 115–132. doi:10.1111/j.2044-8325.1987.tb00245.x.
- Durkheim, E. (1960). The division of labor in society. Glencoe: The Free Press.
- Ellieroth, K. (2019). Spousal insurance, precautionary labor supply, and the Business Cycle-A quantitative analysis. *Society for Economic Dynamics 2019 Meeting Papers* 1134.
- Engelhardt, H. and Prskawetz, A. (2004). On the changing correlation between fertility and female employment over space and time. *European Journal of Population/Revue européenne de Démographie* 20(1): 35–62. doi:10.1023/B:EU JP.0000014543.95571.3b.
- Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Princeton: Princeton University Press. doi:10.1177/095892879100100108.
- Esping-Andersen, G. (2009). *Incomplete revolution: Adapting welfare states to women's new roles*. Cambridge: Polity.

- Esping-Andersen, G. and Billari, F.C. (2015). Re-theorizing family demographics. *Population and Development Review* 41(1): 1–31. doi:10.1111/j.1728-4457.2015.00024.x.
- Farber, H.S. (2011). Job loss in the Great Recession: Historical perspective from the Displaced Workers Survey, 1984–2010. (Working Paper 17040). Cambridge, MA: National Bureau of Economic Research, doi:10.3386/w17040.
- FED St. Louis (2013). data retrieved at http://geofred.stlouisfed.org.
- Gemmill, A. and Hartnett, C.S. (2020). Demographic drivers of the post-recessionary fertility decline and the future of U.S. fertility. *SocArXiv Papers*. doi:10.31235/osf.io/2u78x.
- Goldscheider, F., Bernhardt, E., and Lappegård, T. (2015). The gender revolution: A framework for understanding changing family and demographic behavior. *Population and Development Review* 41(2): 207–239. doi:10.1111/j. 1728-4457.2015.00045.x.
- Goldstein, J.R., Kreyenfeld, M., Jasilioniene, A., and Orsal, D.K. (2013). Fertility reactions to the 'Great Recession' in Europe: Recent evidence from order-specific data. *Demographic Research* 29(4): 85–104. doi:10.4054/DemRes.2013.29.4.
- González, M.J. and Jurado-Guerrero, T. (2006). Remaining childless in affluent economies: a comparison of France, West Germany, Italy and Spain, 1994–2001 Rester sans enfant dans des sociétés d'abondances: Une comparaison de la France, l'Allemagne de l'Ouest et l'Espagne, 19994–2001. European Journal of Population/Revue europeenne de demographie 22(4): 317–352. doi:10.1007/s 10680-006-9000-y.
- Gornick, J.C. and Meyers, M.K. (2003). Families that work: Policies for reconciling parenthood and employment. New York: Russell Sage Foundation.
- Gutiérrez-Domènech, M. (2008). The impact of the labour market on the timing of marriage and births in Spain. *Journal of Population Economics* 21(1): 83–110. doi:10.1007/s00148-005-0041-z.
- Härkönen, J. (2011). Children and dual worklessness in Europe: A comparison of nine countries. *European Journal of Population* 27(2): 217–241. doi:10.1007/s10680-011-9232-3.
- Herbst, C.M. (2018). The rising cost of child care in the United States: A reassessment of the evidence. *Economics of Education Review* 64: 13–30. doi:10.1016/j.econ edurev.2018.03.005.

- Inanc, H. (2015). Unemployment and the timing of parenthood: Implications of partnership status and partner's employment. *Demographic Research* 32(7): 219–250. doi:10.4054/DemRes.2015.32.7.
- Jalovaara, M. and Fasang, A.E. (2017). From never partnered to serial cohabitors: Union trajectories to childlessness. *Demographic Research* 36(55): 1703–1720. doi:10.4054/DemRes.2017.36.55.
- Jalovaara, M. and Miettinen, A. (2013). Does his paycheck also matter? The socioeconomic resources of co-residential partners and entry into parenthood in Finland. *Demographic Research* 28(31): 881–916. doi:10.4054/DemRes.2013. 28.31.
- Kamerman, S.B. and Waldfogel, J. (2014). United States country note. In: Moss, P. (ed.). *International review of leave policies and research 2014*. London: International Network on Leave Policies and Research.
- Kaufman, G. and Bernhardt, E. (2012). His and her job: What matters most for fertility plans and actual childbearing? *Family Relations* 61(4): 686–697. doi:10.1111/j.1741-3729.2012.00720.x.
- Kearney, M.S. and Monday, P.L. (2020). *Half a million fewer children? The coming COVID baby bust.* Washington, DC: Brookings Institute. https://www.brookings.edu/research/half-a-million-fewer-children-the-coming-covid-baby-bust/.
- Killewald, A. and García-Manglano, J. (2016). Tethered lives: A couple-based perspective on the consequences of parenthood for time use, occupation, and wages. *Social Science Research* 60: 266–282. doi:10.1016/j.ssresearch.2016. 03.007.
- Kravdal, Ø. (2002). The impact of individual and aggregate unemployment on fertility in Norway. *Demographic Research* 6(10): 263–294. doi:10.4054/DemRes.2002. 6.10.
- Kreyenfeld, M. (2010). Uncertainties in female employment careers and the postponement of parenthood in Germany. *European Sociological Review* 26(3): 351–366. doi:10.1093/esr/jcp026.
- Kreyenfeld, M. and Andersson, G. (2014). Socioeconomic differences in the unemployment and fertility nexus: Evidence from Denmark and Germany. *Advances in Life Course Research* 21: 59–73. doi:10.1016/j.alcr.2014.01.007.

- Kreyenfeld, M., Andersson, G., and Pailhé, A. (2012). Economic uncertainty and family dynamics in Europe. *Demographic Research* 27(28): 835–852. doi:10.4054/Dem Res.2012.27.28.
- Lange, M., Wolbers, M.H.J., Gesthuizen, M., and Ultee, W.C. (2014). The impact of macro- and micro-economic uncertainty on family formation in the Netherlands. *European Journal of Population* 30(2): 161–185.
- Lesthaeghe, R. (2020). The second demographic transition, 1986–2020: Sub-replacement fertility and rising cohabitation a global update. *Genus* 76(1): 1–38. doi:10.1186/s41118-020-00077-4.
- Lesthaeghe, R. and Van de Kaa, D.J. (1986). Two demographic transitions. *Population: Growth and decline* 1: 9–24.
- Lindo, J. (2010). Are children really inferior goods? Evidence from displacement-driven income shocks. *Journal of Human Resource* 42(2): 301–327. doi:10.1353/jhr.2010.0012.
- Livingston, G. (2018). Stay-at-home moms and dads account for about one-in-five U.S. parents. Retrievable at https://www.pewresearch.org/fact-tank/2018/09/24/stay-at-home-moms-and-dads-account-for-about-one-in-five-u-s-parents/.
- Lundberg, S. (1985). The added worker effect. *Journal of Labor Economics* 3(1, Part 1), 11–37. doi:10.1086/298069.
- Luppi, F., Arpino, B., and Rosina, A. (2020). The impact of COVID-19 on fertility plans in Italy, Germany, France, Spain, and the United Kingdom. *Demographic Research* 43(47): 1399–1412. doi:10.4054/DemRes.2020.43.47.
- Macunovich, D.J. (1996). Relative income and the price of time: Exploring their effects on US fertility and female labor force participation. *Population and Development Review* 22(Supplement: Fertility in the United States: New Patterns, New Theories): 223–257. doi:10.2307/2808013.
- Marynissen, L., Neels, K., Wood, J., and Van de Velde, S. (2020). Ready for parenthood? Dual earners' relative labour market positions and entry into parenthood in Belgium. *Demographic Research* 42(33): 901–932. doi:10.4054/DemRes.2020. 42.33.
- Matysiak, A. (2009). Employment first, then childbearing: Women's strategy in post-socialist Poland. *Population Studies* 63(3): 253–276. doi:10.1080/00324720903 151100.

- Matysiak, A. and Vignoli, D. (2008). Fertility and women's employment: A metaanalysis. *European Journal of Population* 24(4): 363–384. doi:10.1007/s10680-007-9146-2.
- McGinnity, F. and McManus, P. (2007). Paying the price for reconciling work and family life: Comparing the wage penalty for women's part-time work in Britain, Germany and the United States. *Journal of Comparative Policy Analysis* 9(2): 115–134. doi:10.1080/13876980701311562.
- McGonagle, K.A., Schoeni, R.F., Sastry, N., and Freedman, V.A. (2012). The panel study of income dynamics: overview, recent innovations, and potential for life course research. *Longitudinal and Life Course Studies* 3(2). doi:10.14301/llcs.v3i2.188.
- Meron, M. and Widmer, I. (2002). Unemployment leads women to postpone the birth of their first child. *Population (English edition)* 57(2): 301–330. doi:10.3917/pope.202.0301.
- Miettinen, A. and Jalovaara, M. (2018). Unemployment delays parenthood but not for all. Life stage and educational differences in the effects of employment uncertainty on first births. *Advances in Life Course Research* 43: 100320. doi:10.1016/j.alcr.2019.100320.
- Misra, J., Budig, M.J., and Boeckmann, I. (2011). Cross-national patterns in individual and household employment and work hours by gender and parenthood. In: Brady, D. (ed.). *Comparing European workers: Volume 22 Part 1*. Bingley: Emerald Publishing Limited: 169–207. doi:10.1108/S0277-2833(2011)0000022009.
- Moen, P. and Sweet, S. (2004). From 'work-family' to 'flexible careers': A life course reframing. *Community Work and Family* 7(2): 209–226. doi:10.1080/1366880 042000245489.
- Morgan, S.P. (2003). Is low fertility a twenty-first-century demographic crisis? *Demography* 40(4): 589–603. doi:10.1353/dem.2003.0037.
- Mynarska, M., Matysiak, A., Rybińska, A., Tocchioni, V., and Vignoli, D. (2015). Diverse paths into childlessness over the life course. *Advances In Life Course Research* 25: 35–48. doi:10.1016/j.alcr.2015.05.003.
- Neels, K., Theunynck, Z., and Wood, J. (2013). Economic recession and first births in Europe: recession-induced postponement and recuperation of fertility in 14 European countries between 1970 and 2005. *International Journal of Public Health* 58(1): 43–55. doi:10.1007/s00038-012-0390-9.

- Oesch, D. and Lipps, O. (2012). Does unemployment hurt less if there is more of it around? A panel analysis of life satisfaction in Germany and Switzerland. *European Sociological Review* 29(5): 955–967. doi:10.1093/esr/jcs071.
- Oppenheimer, V.K. (1997). Women's employment and the gain to marriage: The specialization and trading model. *Annual Review of Sociology* 23(1): 431–453. doi:10.1146/annurey.soc.23.1.431.
- Ozcan, B., Mayer, K.U., and Luedicke, J. (2010). The impact of unemployment on the transition to parenthood. *Demographic Research* 23(29): 807–846. doi:10.4054/DemRes.2010.23.29.
- Pailhé, A. and Solaz, A. (2012). The influence of employment uncertainty on childbearing in France: a tempo or quantum effect? *Demographic Research* 26(1): 1–40. doi:10.4054/DemRes.2012.26.1.
- Pampel, F.C. 2001. The institutional context of population change: Patterns of fertility and mortality across high-income nations. Chicago: University of Chicago Press. doi:10.7208/chicago/9780226645278.001.0001.
- Parsons, T. (1949). The social structure of the family. In: Anshen, R. (ed.). *The family: Its function and destiny*. New York: Harper and Brothers: 173–201.
- Pollak, R.A. (1985). A transaction cost approach to families and households. *Journal of Economic Literature* 23(2): 581–608.
- Rindfuss, R.R., Morgan, S.P., and Swicegood, G. (1988). *First births in America*. Berkeley: University of California Press. doi:10.1525/9780520332508.
- Rubin, R. (2016). Despite potential health benefits of maternity leave, US lags behind other industrialized countries. *Jama* 315(7): 643–645. doi:10.1001/jama.2015. 18609.
- Samuelson, P.A. (1956). Social indifference curve. *Quarterly Journal of Economics* 70(1): 1–22. doi:10.2307/1884510.
- Schmitt, C. (2012). A cross-national perspective on unemployment and first births. *European Journal of Population/Revue européenne de Démographie* 28(3): 303–335. doi:10.1007/s10680-012-9262-5.
- Schmitt, C. (2021). The impact of economic uncertainty, precarious employment, and risk attitudes on the transition to parenthood. *Advances in Life Course Research* 47: 100402. doi:10.1016/j.alcr.2021.100402.

- Schneider, D. (2015). The great recession, fertility, and uncertainty: Evidence from the United States. *Journal of Marriage and Family* 77(5): 1144–1156. doi:10.1111/jomf.12212.
- Sinyavskaya, O. and Billingsley, S. (2015). The importance of job characteristics to women's fertility intentions and behavior in Russia. *Genus* 71(1): 23–59.
- Sobotka, T., Skirbekk, V., and Philipov, D. (2011). Economic recession and fertility in the developed world. *Population and Development Review* 37(2): 267–306. doi:10.1111/j.1728-4457.2011.00411.x.
- Testa, M.R., Cavalli, L., and Rosina, A. (2011). Couples' childbearing behaviour in Italy: Which of the partners is leading it? *Vienna Yearbook of Population Research* 2011: 157–178. doi:10.1553/populationyearbook2011s157.
- Trimarchi, A. and Van Bavel, J. (2018). Gender differences and similarities in the educational gradient in fertility: The role of earnings potential and gender composition in study disciplines. *Demographic Research* 39(13): 381–414. doi:10.4054/DemRes.2018.39.13.
- Turco, C. (2010). Cultural foundations of tokenism: Evidence from the Leveraged Buyout Industry. *American Sociological Review* 75(6): 894–913. doi:10.1177/0003122410388491.
- US Bureau of Labor Statstics (2020). Local area unemployment statistics, unemployment rates for states. https://www.bls.gov/web/laus/laumstrk.htm.
- Vignoli, D., Drefahl, S., and De Santis, G. (2012). Whose job instability affects the likelihood of becoming a parent in Italy? A tale of two partners. *Demographic Research* 12(2): 41–62. doi:10.4054/DemRes.2012.26.2.
- Yu, W. and Sun, S. (2018). Fertility responses to individual and contextual unemployment: Differences by socioeconomic background. *Demographic Research* 39(35): 927–962. doi:10.4054/DemRes.2018.39.35.

# **Appendix**

Table A-1: Couples' demographic composition

	N	%
Number of waves couples are observed		
1	996	49.5
2	479	23.8
3	252	12.5
4	124	6.2
5+	160	8.0
Migrated	194	9.6
Married	1,526	75.9
Couples' education		
Edu homogamy: High-school	449	22.3
Only woman at least some college	379	18.8
Only man at least some college	184	9.1
Edu homogamy: at least some college	1,074	53.4
Couples' ethnicity		
Race homogamy White	1,390	69.1
Race homogamy Black	385	19.1
Race homogamy Other	55	2.7
Interracial couple	200	9.9

Source: Elaboration by the author based on PSID data. Number of couples in each category at some point in time. 'high education is 'at least some college' and low education is completed high school or some non-academic training besides high school.

Table A-2: Childless couples' and parents' employment

		Childless couples	Parents	Total
Dual earners, both partners FT	N	1,439	761	2,200
	%	49.76	60.78	53.09
Dual earners, one partner works PT	N	526	239	765
	%	18.19	19.09	18.46
Male breadwinner	N	446	113	559
	%	15.42	9.03	13.49
Female breadwinner	N	104	47	151
	%	3.60	3.75	3.64
Man single-earner, woman unemployed	N	120	33	153
	%	4.15	2.64	3.69
Woman single-earner, man unemployed	N	126	42	168
	%	4.36	3.35	4.05
Dual Jobless	N	131	17	148
	%	4.53	1.36	3.57
Total	N	2,892	1,252	4,144
	%	100	100	100

Source: Elaboration by the author based on PSID data. Observation-years: childless couples include only those who remain childless for the entire observation period; parents include observations prior to parenthood.

Table A-3: Linear probability cross-sectional and fixed effects models of the probability of first birth. Robustness checks

Model   Mode			Cross-sectional	ectional			Fixed-	Fixed-effects	
rs FT (Ref)		Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
artners FT (Ref)  -0.027 -0.035 -0.020 -0.042 -0.0630.0042 -0.0630.00710.0890.0049 -0.0630.00890.0049 -0.0630.00870.0076 -0.034) -0.034) -0.034) -0.0350.0370.0076 -0.0370.0370.0078 -0.0400.0370.0079 -0.058) -0.058) -0.058) -0.059 -0.039 -0.049 -0.039 -0.049 -0.049 -0.049 -0.049 -0.039 -0.037 -0.039 -0.039	State unemployment rate		-0.003 (-0.011 -	-0.002 (-0.011 -	-0.002 (-0.010 -		0.002	0.000 (-0.015 -	-0.005 (-0.021 -
artner PT	Dual earners, both partners FT (Ref)	1		)	(2)			) ) ) )	) ) ) )
(-0.055 - (-0.053 - (-0.077 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.089 - (-0.09	Dual earners, one partner PT	-0.027		-0.035	-0.020	-0.042		-0.042	-0.045
		(-0.055 - 0.002)		(-0.063 - -0.006)	(-0.071 - 0.031)	(-0.089 - 0.004)		(-0.089 - 0.004)	(-0.091 - 0.002)
(-0.082 - (-0.087 - (-0.076 - (-0.132 - (-0.132 - (-0.033) - (-0.034) - (-0.037) - (-0.020) - (-0.032) - (-0.037) - (-0.020) - (-0.0	Male breadwinner	-0.063		-0.068	-0.019	-0.076		-0.076	-0.084
		(-0.092 -		(-0.097 -	(-0.076 -	(-0.132 -		(-0.132 -	(-0.141 -
(-0.049 –         (-0.057 –         (-0.065 –         (-0.111 –         (-0.111 –           0.058)         0.052)         0.137)         0.086)         0.086)           -0.059         -0.055         -0.103         -0.086         -0.086           -0.010         -0.026         -0.026         -0.036         -0.036           -0.009)         -0.024         -0.038         0.046)         0.046)           -0.025         -0.032         -0.032         0.049)         -0.017           -0.075 -         -0.082 -         -0.084 -         -0.017         -0.037           -0.070         -0.082 -         -0.083 -         0.049)         -0.049           -0.070         -0.082 -         -0.083 -         0.049)         -0.049           -0.071         -0.072 -         -0.082 -         -0.043         -0.043           -0.070         -0.071 -         -0.043         -0.043         -0.043           -0.015         -0.037 -         -0.034)         0.030)         0.030)	Female breadwinner	0.005		-0.003	0.036	-0.012		-0.012	0.009
0.058  0.052  0.137  0.086  0.087  0.087  0.087  0.083  0.049  0.083  0.049  0.049  0.049  0.087  0.088  0.049  0.049  0.049  0.041  0.086		(-0.049 -		(-0.057 -	(-0.065 -	(-0.111 -		(-0.111 -	(-0.109 -
(-0.110	Man single-earner Woman unemployed	0.058)		0.052)	0.137)	0.086)		0.086)	0.091)
-0.009)         -0.024)         -0.038)         0.046)         0.046)           1 -0.025         -0.032         -0.004         -0.017         -0.017           (-0.075 -         (-0.082 -         (-0.083 -         (-0.083 -         -0.081           0.024)         0.018)         0.093)         0.049)         0.049)           -0.070         -0.082         -0.048         -0.043         -0.043           -0.015         -0.037         -0.034         0.030         0.030		(-0.110 -		(-0.126 -	(-0.162 -	(-0.097 -		- 860.0-)	(-0.117 -
-0.025		-0.009)		-0.024)	-0.038)	0.046)		0.046)	0.047)
(-0.075 - (-0.082 - (-0.084 - (-0.083 - (-0.083 - (-0.083 - (-0.083 - (-0.083 - (-0.083 - (-0.083 - (-0.049) -0.049) -0.049) -0.049) -0.049 -0.043 -0.043 -0.043 -0.045 -0.025) -0.037 -0.034 -0.030 -0.030]	Woman single-earner, Man unemployed	-0.025		-0.032	0.004	-0.017		-0.017	90.00
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		(-0.075 -		(-0.082 -	(-0.084 -	(-0.083 -		(-0.083 -	-680.0-)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		0.024)		0.018)	0.093)	0.049)		0.049)	0.072)
- (-0.127 - (-0.143 - (-0.115 - (-0.115 - (-0.037) -0.034) 0.030) 0.030)	Dual jobless	-0.070		-0.082	-0.088	-0.043		-0.043	-0.027
-0.037) -0.034) 0.030) 0.030)		(-0.116 -		(-0.127 -	(-0.143 -	(-0.115 -		(-0.115 -	(-0.093 -
		-0.025)		-0.037)	-0.034)	0.030)		0:030)	0.039)

**Table A-3: (Continued)** 

		Cross-sectional	ectional			Fixed-6	Fixed-effects		-
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	
Education Edu homogamy: High-school (Ref)									
Only woman at least some college	-0.012 (-0.041 -	-0.005 (-0.034 -	0.000 (-0.028 -	0.004	-0.021 (-0.087 -	-0.017 (-0.082 -	-0.021 (-0.087 -	-0.021 (-0.086 -	(
Only man at least some college	0.017) -0.002 (-0.037 -	0.023) 0.006 (-0.028 -	0.028) 0.006 (-0.028 -	0.051) -0.033 (-0.083 -	0.046) -0.064 (-0.128 -	0.047) -0.063 (-0.124 -	0.046) -0.064 (-0.128 -	0.044) -0.065 (-0.125 -	
Edu homogamy: at least some college	0.032) 0.049 (0.022 –	0.039) 0.059 (0.033 –	0.039) 0.066 (0.040 –	0.017) 0.063 (0.023 –	0.000) -0.038 (-0.121 -	-0.002) -0.038 (-0.118 -	0.000) -0.038 (-0.121 -	-0.005) -0.042 (-0.122 -	11404
Interaction: Education x Couples paid work	0.075)	0.085)	0.092)	0.103)	0.045)	0.042)	0.045)	0.037)	.,
Only woman at least some college*Dual earners, one partner PT				-0.059 (-0.132 -					
Only woman at least some college*Male breadwinner				0.015)					
Only woman at least some college*Female breadwinner				-0.072 (-0.213 -					
Only woman at least some college*Man single-earner, Woman unemployed				0.069)					
Only woman at least some college*Woman single-earner, Man unemployed				0.213) -0.054 (-0.175 -					
Only woman at least some college*Dual jobless				0.068) 0.020 (-0.079 - 0.118)					

**Table A-3: (Continued)** 

		O.POSO-P	Cross-sectional			Fixed-effects	ffects	
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
Only man at least some college*Dual earners, one partner PT		ì		0.076 (-0.022 -				
Only man at least some college*Male breadwinner				0.066 (-0.048 -				
Only man at least some college*Female breadwinner				0.053				
Only man at least some college*Man single- earner, Woman unemployed				0.235) 0.189 (-0.038 -				
Only man at least some college*Woman single- earner, Man unemployed				0.417) 0.001 (-0.154 -				
Only man at least some college*Dual jobless				0.156) 0.044 (-0.088 -				
Edu homogamy: at least some college *Dual earners, one partner PT				0.176) -0.005 (-0.071 -				
Edu homogamy: at least some college *Male breadwinner				0.061) -0.100 (-0.171 -				
Edu homogamy: at least some college *Female breadwinner				-0.029) -0.047 (-0.177 -				
Edu homogamy: at least some college *Man single-earner, Woman unemployed				0.082) 0.030 (-0.074 -				
Edu homogamy; at least some college "Woman single-earner, Man unemployed				-0.036 -0.163 -				
Edu homogamy: at least some college *Dual jobless				0.091) 0.071 (-0.073 - 0.215)				

**Table A-3: (Continued)** 

		Cross-s	Cross-sectional			Fixed-effects	effects	
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
Dual earners, one partner PT*State unemployment rate								0.011
Male breadwinner*State unemployment rate								0.029) 0.018 0.001 –
Female breadwinner*State unemployment rate								0.035) 0.001 (-0.044 -
Man single-earner, Woman unemployed*State unemployment rate								0.012
Woman single-earner, Man unemployed*State unemployment rate								0.046)
Dual jobless*State unemployment rate								0.023) -0.002 -0.028 -
Migration	0.035	0.030	0.040	0.035	0.019	0.021	0.019	0.024) 0.017 (-0.060 -
Ethnicity Race homogamy White (Ref)	0.087)	0.083)	0.092)	0.087)	0.096)	0.098)	0.095)	0.094)
Race homogamy Black	-0.022 (-0.046 -	-0.026 (-0.049 -	-0.029 (-0.053 -	-0.025 (-0.049 -				
Race homogamy Other	0.002) 0.051 (-0.031 -	-0.002) 0.050 (-0.032 -	-0.005) 0.044 (-0.037 -	-0.001) 0.051 (-0.031 -				
Interracial couple	0.134) 0.005 (-0.035 -	0.133) 0.005 (-0.035 -	0.124) -0.002 (-0.041 -	0.133) 0.005 (-0.035 -				
	(25.5)	(5,5)	0.000)	(200				

**Table A-3: (Continued)** 

		Cross-sectional				Fixed-effects		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
Woman's age	-0.010 (-0.011 -	-0.009 (-0.011 -	-0.009 (-0.010 -	-0.009 (-0.011 -	0.002	0.002	0.002	0.001
Woman's age squared	- 0.000 - 0.000 - 0.000	- 0.000 - 0.000 - 0.000	- 0.000 - 0.000 - 0.000	(-0.000 (-0.000 (-0.000)	(-0.001) -0.001)	-0.001 -0.001 -0.001	(-0.001) -0.001)	(-0.001 -0.001 -0.001
Cohabiting (Ref) Married	0.101 (0.078 – 0.123)	0.106 (0.084 – 0.128)		0.101 (0.079 – 0.124)				
2003 (Ref) 2005	-0.023 (-0.067 -	-0.024 (-0.070 -	-0.029 (-0.074 -	-0.025 (-0.070 -	0.025	0.025	0.025	0.026
2007	0.022) -0.012 (-0.054 -	-0.013 (-0.056 -	-0.022 (-0.065 -	0.020) -0.015 (-0.058 -	0.087) 0.071 (-0.014 -	0.068) 0.072 (-0.014 -	0.087) 0.071 (-0.014 -	0.087) 0.074 (-0.010 -
2009	-0.031 -0.073 -	-0.020 -0.020 (-0.075 -	0.021) -0.030 (-0.085 -	0.028) -0.023 (-0.078 -	0.082 (-0.039 -	0.073 0.073 (-0.071 -	0.130) 0.080 (-0.062 -	0.133) 0.091 (-0.051 -
2011	-0.018 (-0.060 - 0.024)	-0.014 (-0.062 - 0.034)	-0.021 (-0.070 – 0.027)	-0.012 (-0.060 - 0.036)	0.144 (-0.011 - 0.299)	0.135 0.135 (-0.033 - 0.304)	0.143 (-0.023 - 0.309)	0.152 0.152 (-0.013 - 0.317)
2013	-0.051 (-0.092 - -0.010)	-0.050 (-0.092 - -0.007)	-0.059 (-0.101 - -0.016)	-0.048 (-0.090 - -0.006)	0.139 (-0.050 - 0.327)	0.135 (-0.060 - 0.330)	0.138 (-0.053 - 0.329)	0.149 (-0.042 - 0.339)
Constant	(-0.109 – -0.027) 0.110	(-0.113 - -0.030) 0.083	(-0.125 - -0.042) 0.194	(-0.110 - -0.028) 0.101	(-0.056 - 0.393) 0.166	0.100 (-0.063 - 0.396) 0.148	0.168 (-0.056 - 0.393) 0.167	(-0.044 - 0.402) 0.165
Observations R-squared Number of Ids	(0.066 – 0.154) 4,144 0.093	(0.041 – 0.124) 4,144 0.088	(0.153 – 0.235) 4,144 0.082	(0.051 – 0.151) 4,144 0.097	(0.038 – 0.295) 4,144 0.023	(0.018 – 0.277) 4,144 0.020	(0.038 – 0.296) 4,144 0.023	(0.038 – 0.292) 4,144 0.025

Source: Elaboration by the author based on PSID data. Note: Robust Confidence Intervals in parentheses (clustered for couples ID in cross-sectional models). Standard errors are corrected to account for the autocorrelation of the panel data structure. Woman's age and state unemployment rate mean-centered.