

# **Rethinking Couples' Fertility in Spain: Education, Employment and Occupational Homogamy**

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Fertility decisions among Spanish couples in the last few decades have been strongly driven by economic uncertainty and labor market conditions in a context in which dual-earner couples have become the norm and in which the gender gap in education has reversed. However, the partners' respective jobs do not have the same weight in such decisions. This paper analyzes fertility from a gender perspective. We explore how the relative education, employment and occupational characteristics of both partners in terms of homogamy can provide insights into couples' fertility decisions. We use data from the Spanish Labor Force Survey collected between 2002 and 2018. The results suggest a reverse in the negative education-fertility gradient among Spanish couples and show that dual-earner highly educated couples and hypogamous couples have a higher likelihood of having a child, especially when both partners, particularly the female, have job stability. We conclude that the role played by females' employment in fertility trumps the role played by gender essentialism highlighting the non-exclusive importance of gender egalitarianism, females' employment and economic uncertainty for fertility.

Keywords: gender, fertility, economic uncertainty, labor market, relative resources

## **Introduction**

In the last century, we have witnessed an unprecedented worldwide expansion of higher education (Schofer & Meyer 2005), which compared with access in prior centuries has been especially relevant for women. This was a decisive structural change that flipped the relationship

between education and gender, and today, a reversal of the gender gap in education is apparent in many countries (Van Bavel et al. 2018, Esteve et al. 2012, Klesment and Van Bavel 2017). As a consequence, there has been a *domino effect* on other domains within the family dimension (Van Bavel et al. 2018) that is evident in new patterns of assortative mating, lower union formation and higher union dissolution, or new arrangements of partners' participation in the labor market. However, one of the changes that has perhaps occupied the most space on demographers' research agendas has been the postponement of fertility, which results in low fertility levels. All of these changes combined are expected to produce an increasing number of more egalitarian couples and a small but increasing number of hypogamous couples (i.e. couples in which the female partner has a higher status than the male partner). However, a paradox arises in the persistence of gender inequality. On the one hand, females' educational advantage is not always directly related to an employment and occupational advantage (Van Bavel, 2012). On the other hand, male and female partners' respective jobs do not have the same weight in fertility decisions (England, 1984). In this work, we explore how partners' relative characteristics in education and the labor market can shed light on how couples make fertility decisions in the Spanish context. Specifically, we examine patterns of fertility and homogamy according to couples' human capital (education), labor force participation (employment status), and relative position on the scale of occupational prestige (occupation). This approach is innovative because fertility has traditionally been examined from a female perspective, less often including a male perspective, and rarely from a couple-level perspective. We emphasize the importance of considering fertility decisions as couple-level decisions. In applying this approach, we build on Neyer et.al. 2013 that claim for the necessity of more specific measures of studying the link between gender equality and fertility.

Spain is a highly suitable case for analyzing such patterns. Since the 1980s, Spain has been one of the ‘lowest-low’ fertility regions in the world (Billari and Kohler 2004; Kohler et al. 2002). The country’s economic uncertainty in combination with the progression of more gender-egalitarian norms contributed to making dual-earner couples the most common family economic arrangement in Spain by the beginning of the 21st century, to the detriment of the male breadwinner model (Dema 2006, García-Román 2013). Fertility intentions (and decisions) among Spanish couples are often conditioned upon the couple’s economic arrangements and financial stability (Bueno and Brinton, 2019). It has been shown that settings with high and prolonged levels of unemployment and precarious work are highly associated with the delay of the transition to parenthood (Miret and Vidal-Coso, 2017) and second births (Adserà 2011). Job insecurity as a result of fluctuations in the economic cycle, together with an institutional context that does not facilitate the reconciliation of family and work life (Castro-Martín et al. 2018), has placed young couples in Spain at a crossroads between the desire to have children and the real possibility of making effective fertility decisions (Brinton et al., 2018).

### **The Relative Resources Perspective**

Becker’s (1960) new economics of the household approach argues that women’s advantage in education and in the labor market implies a higher opportunity cost of having children and has been one of the main factors contributing to fertility decline in postindustrial societies (Mills et al. 2011). However, women have not entered the labor market on equal footing with men. The existing sex segregation and gender wage gap in the labor market limit women’s career paths (England, 1984; Padavic and Reskin, 2002), and the mismatch between changing gender roles in the public and private spheres has placed a greater burden of paid and unpaid work on women, a

trend popularized by Hochschild (1989) as the ‘second shift’. One of the theories used in previous literature to explain gender inequality in the distribution of productive and reproductive work is the theory of relative resources or exchange models between partners (Blood and Wolfe 1960; Lundberg and Pollak 1996). Relative resources theory is mainly linked to the position of partners in the labor market and identifies trade-offs between partners based on their financial contribution to the household. Thus, the partner with less ‘bargaining power’ – lower income – theoretically performs a greater share of the reproductive tasks. In this paper, we borrow the relative resources perspectives from the literature on the division of housework to argue that the relative position of parents in the labor market might provide insights into fertility decisions.

One of the main criticisms of the relative resources approach is that it does not take into account factors related to the culture and attitudes of individuals and societies, in particular, gender-role attitudes. Lundberg and Pollack (1996) incorporate a gender-roles dimension in their proposed separate spheres model that acknowledges that certain tasks such as housework and childcare might be seen as female responsibilities and, consequently, are not considered in the bargaining process. In such cases, regardless of women’s gains in bargaining power, they will not see reductions in their role as caregivers (Sevilla-Sanz et al. 2010). Although this proposal is well founded, it is plausible that the validity of the relative resources perspective will increase over time as young adults in dual-earner couples become more egalitarian in their gender-role attitudes. However, contrasting with this idea, research on ‘undoing gender’ states that bargaining models do not explain the behavior of fathers who are highly involved regardless of both parents’ job situation (Fernández-Lozano, 2019).

Recent research on low fertility conducted within the gender equity and family change framework theorizes that as men become more involved in the reproductive sphere, fertility will

recover (Esping-Andersen and Billari, 2015; Goldscheider et al., 2015; McDonald, 2000a, 2000b). However, although greater egalitarianism has been related to the increased involvement of men in unpaid work, it is not clear that it also implies higher fertility (Okun & Raz-Yurovich, 2019). Some authors have pointed to the ‘flip side’ of the gender equity theory, arguing that as men become more involved at home, they will also experience greater work-life conflict, resulting in reduced fertility intentions and actual fertility (Miettinen et al., 2011; Okun & Raz-Yurovich, 2019; Presser, 2001). For example, Farrè and González (2019) found that fathers who took two-week paternity leave in Spain were less likely to have another child in the next six years than fathers who did not. Contrarily, Brodmann et al. (2007) found a positive relation between partners bargaining and fertility in Denmark among career-oriented women and more involved men.

In an attempt to bridge these two theoretical strands – relative resources theory and gender equity theory – we use a gender lens to look at partners’ relative resources in relation to fertility. Although the data used in this study do not permit the direct measurement of the interaction that gender-role attitudes might have with the relative resources perspective, we use the female partner’s job position relative to the male partner’s as a proxy of gender dynamics. Thus, we assume that full-time dual-earner and female-breadwinner couples and couples in which the female partner or both partners have high education levels and high positions on the occupational scale are more egalitarian than couples in which the female partner holds a secondary role in the labor market. We acknowledge that such an association might not necessarily be consistent, and it remains a limitation of this study.

Thus, we seek new insights by hypothesizing on three main characteristics: education, employment and occupation.

## ***Education***

In recent times, an increasing number of studies are contributing to the debate on whether or not a reverse in the traditional negative relationship between females' education and fertility is happening in Western countries (Adserà 2017, Andersson et al. 2009; Kravdal and Rindfuss 2008). However, previous literature has found mixed results in different country settings.

Our first general hypothesis is based on the long-held assumption that couples in which both partners have high education levels (labeled here as 'homogamy high couples') and couples in which the female partner has more education than the male partner ('hypogamous couples') will postpone parenthood and consequently have lower fertility than less educated couples ('homogamy low couples') and couples in which the female partner has less education than the male partner ('hypergamous couples'), who will have more children and have them earlier. For the first two cases, it is presumed that women experience a higher opportunity cost of having children. This assumption is based on the idea that couples in which the female partner has better career prospects will postpone parenthood until they are securely established in the labor market.

H1: Women's higher education will result in later and lower fertility. Women's lower education will result in earlier and higher fertility.

## ***Employment***

In this work, the relative resources approach should also be understood within the frame of parents' economic stability. Fertility decisions in postindustrial societies are closely linked to economic conditions. Kravdal (2002) highlights that regardless of the individual job circumstances of the partners, the macroeconomic context influences perceived economic

insecurity in relation to a couple's decision to have a child. However, previous research has shown that men's employment stability and women's employment stability do not play equal roles in fertility decisions. By measuring a couple's economic uncertainty through unemployment, studies across different country contexts have shown that men's unemployment typically has a greater negative effect on fertility than women's unemployment (Kravdal, 2002; Cazzola et al. 2016; Vignoli et al. 2012; Vidal-Coso and Miret, 2017).

The onset of the Great Recession in 2008 created new opportunities for research on economic uncertainty and fertility, especially in countries that, like Spain, were significantly affected and have a weak welfare state for supporting families (Matysiak et al., 2018). In a recent paper, Comolli (2017) shows that the role of women's unemployment in explaining fertility increased in Europe and the U.S. during the recession years. In the Spanish case, women out of the labor market and women with stable employment had higher fertility levels (Vidal-Coso and Miret, 2017), thus reinforcing the stronger determining role of female employment status in fertility. Adserà (2011) reports the negative effect of women's job instability –unemployment and temporary contracts – on fertility behavior.

Hence, within a context of economic uncertainty (and presumably greater gender egalitarianism), we expect that the relative resources approach to understanding fertility patterns will be strengthened given how difficult it is for families to live on only one salary. Considering the crucial role of the economic context in reproductive behavior, the analysis controls for the main periods of the recent economic cycle – expansion, recession, and recovery. Given the central role of economics in fertility decisions, our second hypothesis predicts that

H2: Partners' relative employment arrangements will have a stronger explanatory value for fertility than education level.

In line with previous literature, we expect in particular that men's unemployment (hypogamous couples) will depress fertility, since the economic responsibility would fall entirely on the female partner. Fertility will also be depressed for couples in which neither partner is employed (neither work), given the high economic uncertainty experienced by these couples. For 'traditional' couples in which only the male partner works (hypergamous couples), we expect higher fertility, though this may be counteracted by the fact that in a context of greater egalitarianism, unemployed women may lower their childbearing intentions until they have achieved job stability. Similarly, we expect higher fertility for couples in which both partners are employed (dual-earner couples), as they are assumed to experience greater economic stability. However, the constraints from the lack of support for work-life balance may counteract this effect.

### ***Occupation***

To obtain a more fine-grained analysis, it is necessary to focus specifically on dual-earner couples and to determine how both partners' job characteristics affect fertility decisions. We know from previous studies in the Nordic countries that women's advantage in the labor market, while delaying fertility decisions, might eventually provide enough financial stability to facilitate a faster transition to a second child than is seen among less stable couples. Highly educated women who have a second child do so within a shorter time period than women with less education (Andersson et al. 2009; Kravdal and Rindfuss 2008). Conversely, women (and couples) lower on the occupational scale face greater financial and job instability, which makes it harder to make fertility decisions. Consequently, less advantaged couples in the labor market are



expected to also delay childbearing and to ultimately have lower fertility levels than more advantaged couples.

In addition, scholars have thoroughly discussed the interaction between education and fertility. In this paper, we explore the correspondence among fertility, education, and career prospects (measured as occupational prestige). Although highly educated women were the forerunners of fertility postponement, women with lower educational attainment followed them (De la Rica and Iza, 2005). This evidence suggests that the effect of education on fertility is weaker than the effect of economic uncertainty and job precariousness for both educated and non-educated individuals. We follow this thread in elaborating our third hypothesis.

H3: When introducing partners' job characteristics – working hours and employment stability – women's educational advantage relative to men's will be obscured by the pervasive precariousness of the Spanish labor market. The better relative labor market position and occupational characteristics of the female partner than the male partner are better predictors of fertility than education.

In particular, we expect that couples in which the female partner has a more prestigious job than the male partner (hypogamous couples) will have lower fertility, even though the male partner will presumably be less career oriented and therefore devote more time to reproductive work. Conversely, when it is the female partner who has a secondary role in the labor market, measured as a less prestigious occupation (hypergamous couples), fertility will be comparatively higher. For couples in which both partners have low-skilled jobs (homogamy low couples), the derived economic insecurity of their employment situation coupled with work-life balance difficulties will lead to lower fertility. However, as a counteracting factor, these couples' lower opportunity

cost of having children in terms of career development may promote their fertility. Finally, for couples in which both partners are securely established high on the occupational scale (homogamy high couples), we expect that the higher opportunity cost of having a child, together with the lack of work-life balance, will depress their fertility, though their presumed financial stability will favor fertility transitions.

## **Data and Methodology**

We use data from the Spanish Labor Force Survey (SLFS) collected between 2002 and 2018. The design of the survey implies that a sixth of the sample is renewed every six trimesters. This means that each respondent participates in the survey during 6 consecutive waves. We first combine all the observations for each respondent (98,864 cases) and determine whether any births occurred within waves 4 to 6 (4,988 births occurred). As employment characteristics might have changed at the time of the birth, we determine both partners' characteristics three waves before the wave in which the birth occurred, approximately at the time of conception. To identify gender patterns, we select heterosexual couples, both married and cohabiting, in which the female partner is between 20 and 44 years of age (see Table 1 in the appendix for a description of the sample). Given the late transition to adulthood in Spain, union formation and fertility are minimal before age 20.

Fertility is calculated based on the presence in the household of children under one year old from any place in the birth order<sup>1</sup>. We identify that the respondent had a child when the number of children age 0 in the household is greater than in the previous wave. When this is the

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<sup>1</sup> As a robustness check, we calculated separate models by birth order (first or subsequent birth), and no significant differences were observed. Results are available from the authors upon request.

case, we assign to the couple their characteristics from three waves before. For example, if the couple has a child between waves three and four, we assign the characteristics observed in the first wave. Thus, we consider only births occurring in wave 4 or later. If the couple did not have a child during the period of observation, we assign the characteristics observed in the third wave. We calculate age fertility patterns and fertility intensity by employment status, educational homogamy, and occupational homogamy (for dual-earner couples only). The formula we use is similar to that for age-specific fertility rates. For each type of couple, we divide the number of births observed between waves 4 and 6 by the total number of women in each age group and each couple category.

The two dimensions analyzed in terms of homogamy – education and occupation – each have four categories: homogamy of low status (both low), hypergamy (he more than she), hypogamy (she more than he), and homogamy of high status (both high). To build these variables, partners' level of education and occupation were grouped into four categories as follows.

- Education: 1) Less than a secondary education; 2) Basic secondary education; 3) Basic or superior vocational graduates and upper secondary education; and 4) Ph.D., postgraduate or masters level, and university graduates (3 to 5 years). The category 'homogamy low' includes the two lowest categories of education (1 and 2).

- Occupation<sup>2</sup>: 1) Elementary occupations, non-skilled employees, 2) Clerks, skilled employees, 3) Technicians and associated professionals, employees, 4) Managers and professionals .

Couples' employment status is measured in terms of the partners' labor force participation, accounting for employed, unemployed and inactive partners. We differentiate five categories: 1) neither work, 2) only he works and she is inactive, 3) only he works and she is unemployed, 4) only she works (unemployed male, or, less often, inactive), and 5) both partners work .

We calculate logistic regression models to explore the effect of couples' education, employment and occupation characteristics on the likelihood of having a child. As control variables for all models, we introduce the following:

- *economic cycle*, in three periods – expansion (2002-2007), the Great Recession (2008-2013), and the recovery period (2014-2018);
- *female's age*; and
- the presence of *previous children* in the household

In addition, models considering occupational homogamy, which are run only for dual-earner couples, also control for the following:

- partners' *working hours* – full time (30+ hours/week) and part time (less than 30 hours/week) and
- partners' *employment stability* – stable and unstable. The 'stable' category comprises

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<sup>2</sup> The classification of occupational prestige follows the ESSnet classification for the harmonisation and implementation of a European socioeconomic classification: European socioeconomic groups (ESeG) (ESSnet, 2014).

employees in the public sector (both civil servants and temporary contractors) and employees in the private sector with permanent contracts. The ‘unstable’ category comprises self-employed individuals and employees in the private sector with temporary contracts.

We next present the descriptive results to contextualize the characteristics of couples’ relative resources and fertility in Spain. We then present the multivariable results.

### **The Spanish Context: Couples’ Relative Characteristics Over Time**

Before presenting the results, we offer an overview of the structural changes in couples’ relative educational and labor market characteristics in Spain. The combination of the expansion of education for women and changes in the economic cycle has created a relatively new landscape. The general access to higher education – for women in particular – has flipped the picture of how young couples are distributed with respect to their educational homogamy.

Figure 1a shows the decline over time of the proportion of couples in which both partners have a low education level, from 25% of couples in the period of economic expansion to 16% in the most recent period. Likewise, hypergamous couples, in which he is more educated than she is, are also decreasing. In turn, the percentage of couples in which the female partner is more educated than the male partner (hypogamous couples) has progressively increased from 29% to 34%. Even more prominent is the increase in the percentage of couples in which both members have a high education level, from 26% to 35% during the observed period. In sum, in 7 out of 10 couples, women have either the same or a higher level than their partners.

--Figure 1 about here --

The structural change in education can also be observed in how the distribution of partners' employment status has evolved with the changing economic cycle (Figure 1b). The 'traditional model' in which only he works represented 37% of couples at the beginning of the period. This percentage experienced a significant decline over time, and the evolution was especially striking for those couples in which the female was inactive or unemployed. In the first case, the percentage diminished from 29% to half this, 14%, confirming the steep decline of the 'true' male breadwinning model. In the second case, the proportion of couples in which he works and she is unemployed increased from 8% to 13%, pointing to the increasing relevance of females' employment, especially during the economic recession, as the theory of the added worker effect predicts (Mattingly and Smith, 2010). Some of the previously inactive women are part now of dual-earner or couples in which only she works. The percentage of dual-earner couples slightly increased from 56% to 58%. However, more interesting is that couples in which only the female partner is employed doubled between the expansion and the recession from 4% to 8%, and this share was maintained during the recovery period due to major job elimination for men during the crisis. For the same reason, couples in which neither of the partners is employed have followed the same trend.

Finally, the distribution of dual-earner couples according to partners' occupational prestige also reflects the structural changes in education. Figure 1c shows a small reduction, from 8% to 5%, in the percentage of couples in which both partners have unskilled occupations. Hypergamous couples have followed a similar trend, dropping from 29% to 22%. In turn, hypogamous couples and those in which both partners are employed on the high end of the occupational scale have represented 7 out of 10 young couples in Spain since 2013, with both types having increased their share over time.

After comparing couples' relative educational, employment and occupational characteristics, we can see how the significant structural changes observed in the educational profile in favor of women shape new trends in the distribution of couples according to their relative occupational characteristics. How is this structure related to fertility?

### **Couples' Relative Characteristics and Fertility.**

In this section, we descriptively explore how partners' relative characteristics are linked to the timing and intensity of fertility behavior. Figure 2a represents the fertility patterns of partnered females between 20 and 44 years of age by educational homogamy. It is well known that higher education, especially for women, causes fertility postponement in many contexts. In line with our first hypothesis, Figure 2a shows that the latest fertility timing occurs in couples in which both parents have a high education level, followed closely by hypogamous couples. Couples in which the female partner has less education than the male have their children earlier than the previous groups, as do couples with low education levels, who begin bearing children the earliest.

However, education is not always reflected in labor market participation, especially in a context, like the Spanish one, with convulsive economic changes that have led to high unemployment and profound economic uncertainty. If we attend to parents' employment status (Figure 2b), important differences arise. The vast majority of children born to young mothers in their twenties are born to couples in which the male is employed and the female is inactive. This observation supports that relative resources play a role in fertility decisions in terms of time availability. In contrast, women's participation in the labor market as the sole economic providers of their households significantly reduces and postpones their fertility, and differences by age in this group are less intense. Conversely, the fertility levels of dual-earner couples are

consistently higher at all ages after 25 than among couples affected by unemployment, indicating the importance of economic stability.

Employment status offers an introduction to how gender differences in labor force participation affect fertility behavior. However, to fully understand the trade-off between partners' labor characteristics under the relative resources perspective, it is necessary to focus on and decompose dual-earner couples. Figure 2c presents data for only those couples in which both partners are employed. The fertility curves for occupational prestige are proximate to those for education. In both cases, the trend of early fertility is pronounced for the more disadvantaged couples, and the trend of fertility postponement is pronounced for hypogamous couples and those in which both partners hold high-status occupations.

--Figure 2 about here --

There are evident differences in the timing of fertility by partners' characteristics. Do these characteristics also have an effect on the intensity of fertility? Figure 3 shows the fertility levels for each category calculated as the sum of the age-specific fertility rates of all couples<sup>3</sup>. It is important to remember that these figures are not comparable to *traditional* total fertility rates because they are calculated only for partnered individuals. The panel on education shows that less educated couples have the lowest fertility (1.6 children per couple) and that highly educated couples have the highest fertility (2.2 children per couple), but there is little difference between hypergamous and hypogamous categories (approximately two children per couple). The employment panel shows that, for couples in which both partners work and especially for the

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<sup>3</sup> The fertility of the 15-19 age group is not considered in the calculations. The proportion of births occurring among 15-19-year-olds in the low-education group is 6.9%, while for the other educational groups, it is less than 1%.



‘male breadwinner model’ in which only the male partner works and she is inactive, the two-child norm seems to be achieved. Couples in which only she works show the lowest level of fertility (1.4 children per couple) due to the high opportunity cost of having children for such pairs; this cost similarly affects couples in which neither partner works. These groups, however, represent only 7% and 6% of the sample, respectively. The two-child norm largely holds when we measure dual-earner couples’ occupational prestige, except for couples with occupations of low prestige, who account for only 6% of the sample.

--Figure 3 about here --

The descriptive results suggest two main ideas. First, women’s advantage in education and the labor market in relation to their male partners is, as expected, associated with fertility postponement but not necessarily with fewer children than other couples. Second, low education levels and job precariousness in dual-earner couples seem to lower fertility in groups presupposed to have higher fertility levels. Although occupational prestige does not necessarily translate into job stability or income stability, a high correlation between them is expected, giving economic and job uncertainty a key role in fertility decisions. The descriptive results also suggest that partners’ relative resources interfere strongly with the timing of fertility, but the effect on the intensity of fertility is less clear. We next use logistic regression models to shed light on the validity of these observations.

## **How Do Relative Resources Explain Couples’ Probability of Having a Child?**

### ***The Roles of Education and Employment***

Following the insights obtained from the descriptive results, we further develop this work by

running multivariate regression models that allow us to control for couple and labor market characteristics. Figure 4a<sup>4</sup> shows the predicted probabilities of having a child computed from the regression models according to the relative educational levels of the partners. The model controls for female partner's age, economic period, and the presence of previous children in the household. We observe a positive relationship between education level, especially women's education level, and fertility. The probability of having a child is significantly higher for couples in which both partners have a high educational level and lower for couples with a low education level. This first observation contradicts the first hypothesis that couples in which the female pursues higher education have lower fertility because childbearing has a higher opportunity cost for them. The results also show statistically significant differences between hypergamous and hypogamous couples, with the latter being more likely to have a child, which suggests the importance of the female partner's characteristics in fertility decisions.

--Figure 4 about here --

We further explore these differences by including in the model the couples' employment arrangement (Figure 4b). First, we observe that dual-earner couples are those with the highest probability of having a child, and this is statistically significant for all education level combinations. This finding confirms the key role that the financial factor plays in Spanish households. Second, regarding single-earner couples, few gender differences arise. Among couples with a low education level, having a child is only slightly more likely when the female is inactive than when one of the partners is unemployed, although these results are not statistically

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<sup>4</sup> See Table 2 and Table 3 in the Appendix for details on the full models. The models consider hypergamy as the reference category because couples in which the male has more education than the female represent, traditionally, the most common combination.

significant. Third, we observe that the positive gradient for educational categories remains when we control for employment. The predicted probabilities in Figure 4b confirm that highly educated couples are more likely to have a child than couples with a low education level and that couples are also more likely to have a child when she has more education than him than when he has more education than her.

### ***Relative Resources and Fertility among Dual-Earner Couples: the Role of Occupation***

The results for couples' employment arrangement (Figure 4b) confirm the important role of both partners' employment in fertility decisions. We consider that the most significant trade-offs in relation to parenthood are experienced by couples in which both partners are employed, as both partners' job characteristics factor into the decision making. For this reason, in Figures 4c and 4d, we restrict the analysis to dual-earner couples and explore the effects of partners' education level and occupational prestige on the likelihood of having a child. In the first step (Figure 4c), a basic model controlling for the previous set of control variables, namely, female partner's age, economic period, and the presence of previous children in the household, shows a significantly higher probability of having a child for couples in which the female partner has—alone or together with the male partner—a high occupational status than for hypergamous and homogamy low couples. This result contradicts the hypothesis that there is a higher opportunity cost of childbearing for career-oriented women. Conversely, in line with the results from previous models, when both partners have low-skilled occupations, their likelihood of having a child is significantly lower. This finding is important because it contradicts for the Spanish context the long-held belief that those with low socioeconomic status have higher fertility. With respect to previous models, the effect of the educational gradient remains when we consider only dual-

earner couples.

To measure economic uncertainty, in a second step (Figure 4d), we include two labor-market-related variables that are expected to have important explanatory value: partners' relative *working hours* and partners' relative *employment stability*. Controlling for these two job characteristics confirms the robustness of the results based on the educational gradient and females partners' advantage in education (hypogamous couples). Conversely, couples in which both partners have low education levels experience the greatest constraints on having children. This is consistent with the predicted probabilities obtained for partners' job stability (Figure 4d). To further understand this 'relative game' between partners' job characteristics, it is important to attend to the two occupational control variables. For working hours, we consistently find a higher probability of having a child among full-time dual-earner couples because they have, presumably, fewer economic constraints on childbearing than couples in which one of the partners (or both) works part-time (see Table 2 in the Appendix).

The predicted probabilities observed for partners' employment stability (Figure 4d) confirm the key role of the female partner's job. It is remarkable that, compared to couples in which only the male partner has a stable job (in the public sector or with a permanent contract in the private sector) or neither partner has a stable job, couples in which the female has job stability (either alone or together with her partner) have the highest probability of becoming parents, especially when both partners have job stability. These results reinforce the increasing importance of females' employment in explaining fertility decisions among dual-earner couples.

## **Conclusions**

In this work, we have explored couples' fertility in Spain through a gender lens by examining partners' relative education levels, employment arrangements, and occupational prestige. Using

the panel data of the Spanish Labor Force Survey collected between 2002 and 2018, we first explored structural changes over time in couples' composition, and we calculated the timing and intensity of couples' fertility according to their characteristics in terms of homogamy. In a second stage of the analysis, we ran multivariate regression models to examine the factors determining the likelihood of having a child.

The descriptive results initially revealed that partners' relative characteristics interfere more with the timing of fertility than with the intensity, confirming that the postponement of fertility concentrates on dual-earner couples with higher education and occupational prospects. However, results also suggest that postponement is not synonymous of lower fertility. Low fertility levels of approximately 1.5 children per couple occur primarily in couples with low education levels and those with low-skilled jobs, while other dual-earner couples show levels of approximately 1.9-2.2 children per couple. In light of these results, the analysis of couples' employment arrangements indicates the importance of economic uncertainty, as dual-earner couples have higher levels of fertility than those in which one or both partners are unemployed. One exception is observed. Hypergamous couples that could be identified as 'male breadwinner couples' because they are composed of an employed male and an inactive female also show fertility levels of two children per woman, even higher than those observed for dual-earner couples.

However, the results of the multivariate analysis offer more detailed insights in this regard. Having controlled for female partner's age, period of observation, and the presence of previous children in the household, we first confirmed a positive relationship between education and fertility which contradicts our first hypothesis that presumed the opposite outcome. Thus, highly educated partners have the greatest likelihood of having a child, and this likelihood is also significantly higher for hypogamous couples than for hypergamous couples. Second, notably, the higher levels

of fertility among inactive women (similar to those of dual-earner couples) observed at the descriptive stage failed to appear in the multivariate results. This is an important finding that confirms that the role played by females' employment in fertility trumps the role played by gender essentialism, thus confirming the importance of employment stated in the second hypothesis. Third, having observed the importance of employment in fertility, we further examined dual-earner couples to find differences related to partners' relative occupational prestige. The results in this regard confirm that dual-earner couples in which both partners have jobs at the high end of the occupational scale and hypogamous couples have a greater likelihood of having a child. After controlling for labor market characteristics, the findings reflect the significant importance of females' job stability in the probability of having a child among dual-earner couples. It is also important to emphasize that hypogamous couples in terms of occupational prestige have a higher likelihood of having a child than hypergamous couples. In addition, low education levels and job precariousness in dual-earner couples seem to result in lower fertility among those groups, which traditionally are expected to have higher fertility levels. We do not completely reject, neither accept, our third hypothesis expecting that job characteristics were better predictors than education for fertility. We do confirm that the reverse in the relationship between the educational gradient and fertility occurs at least for partnered individuals.

Overall, our findings imply that partners', especially women's, financial stability represents a stronger limiting factor than labor force participation itself and the gender roles in the family. By adopting the relative resources perspective in this study, we can affirm that the relative characteristics of partners in terms of education and the labor market offer important insights into fertility decisions both at the individual and institutional levels and have imperative implications

for the development of employment and family policies. These results also signal a step forward in the transition to a more gender egalitarian regime in Spain.

There are some limitations of the analysis that need to be mentioned. First, it can be assumed that the older the partners are at the time that the relationship starts, the weaker the relative resources argument will be, given the pressure of the biological clock. However, we do not know the age at union of the partners. Second, the analytical design chosen implies left-censored data, leaving the 15-19 age group out of the analysis. This methodological decision means that a number of births, mainly from couples with low education levels, remained unobserved. Nevertheless, low-educated are today an underrepresented group (Jalovaara et al. 2019).

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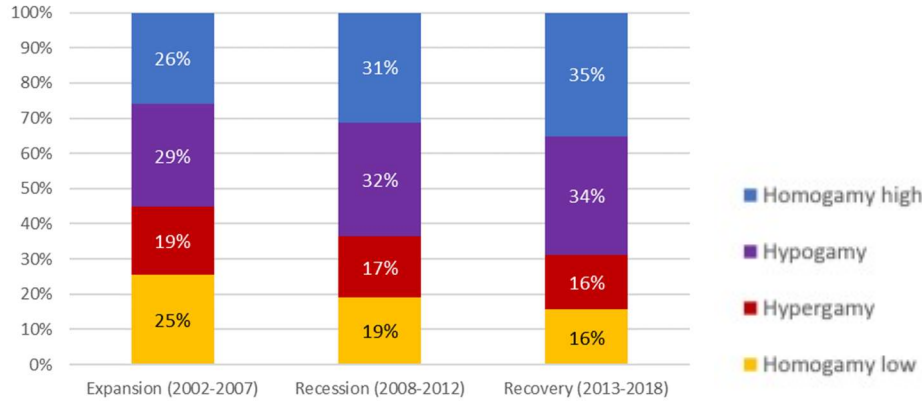


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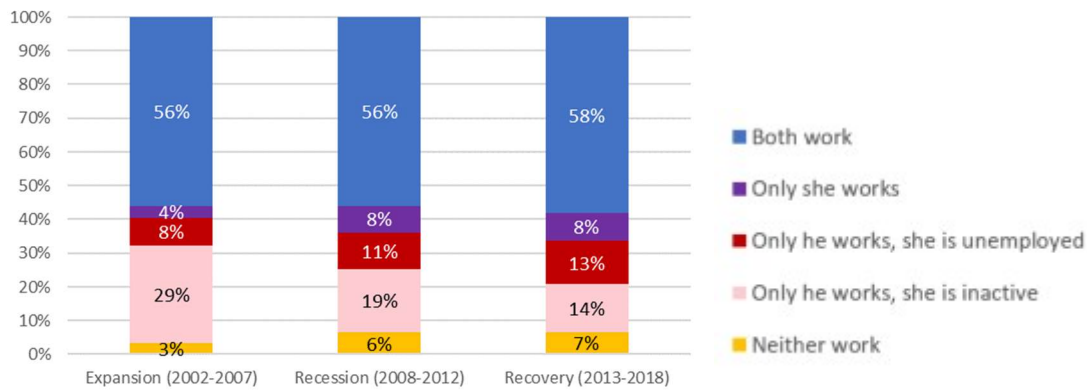
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Figure 1: Distribution of couples by the educational attainment, employment status, and occupational prestige of both partners. Couples in which females are between 25 and 44 years old. Spain, 2002-2018.

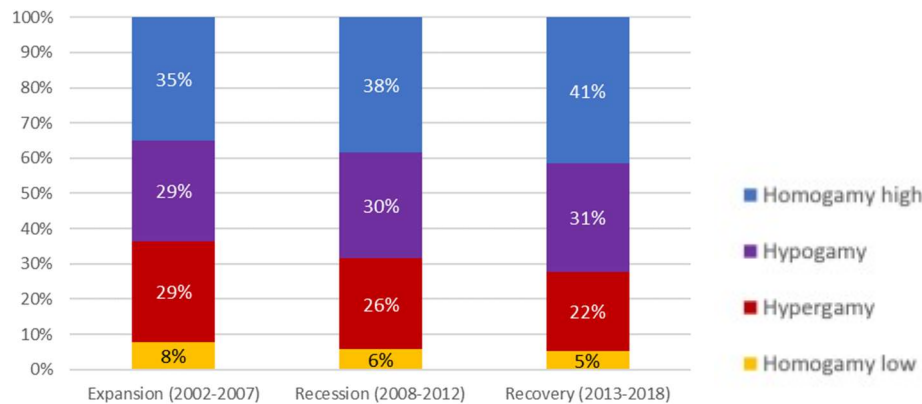
a) Educational homogamy\*



b) Employment status \*



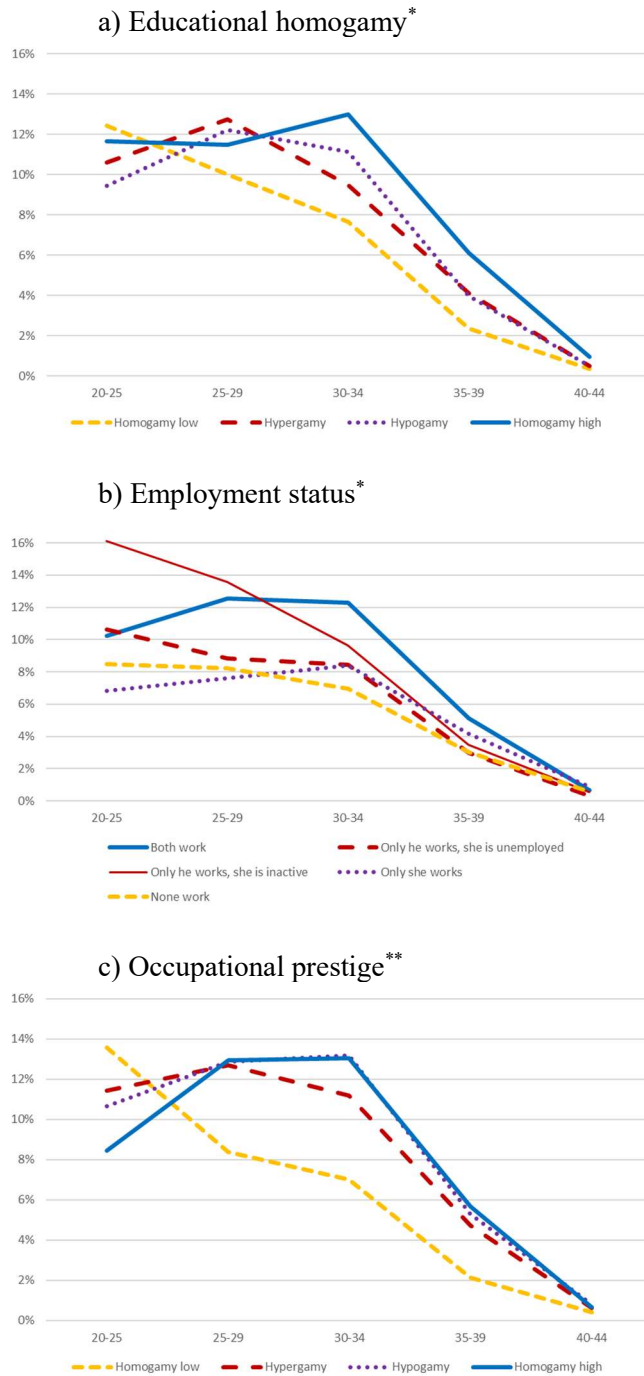
c) Occupational prestige\*\*



Note: \* all couples; \*\* dual-earner couples

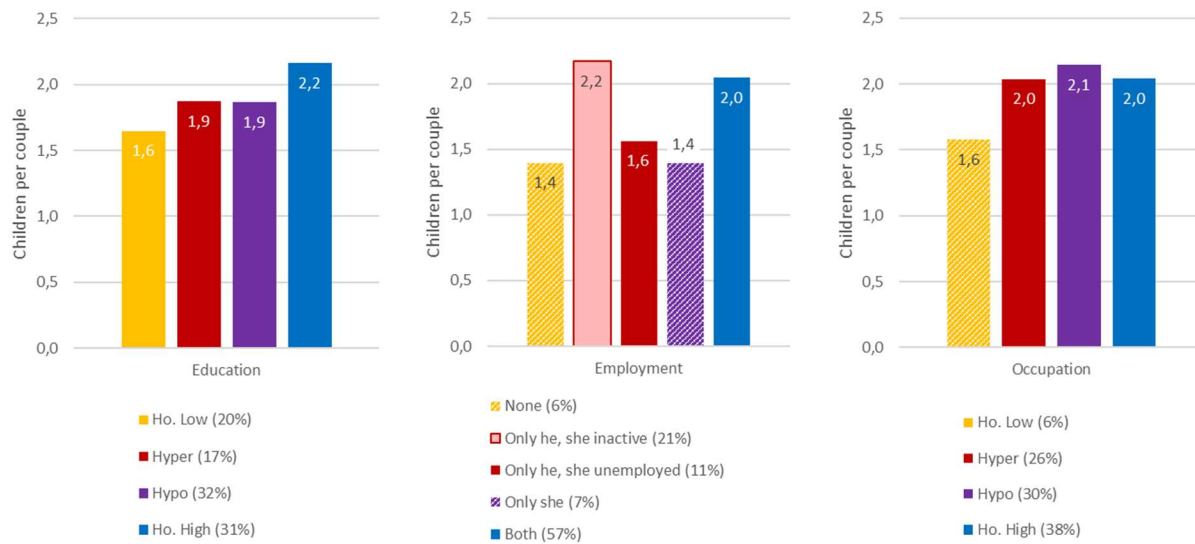
Source: SLFS, 2002-2018.

Figure 2: Age fertility patterns of partnered females between 20 and 44 years old by educational homogamy, employment status, and occupational prestige. Spain, 2002-2018.



Note: \* all couples; \*\* dual-earner couples  
 Source: SLFS, 2002-2018.

Figure 3: Fertility intensity of partnered females between 20 and 44 years old by educational homogamy, employment status, and occupational prestige. Spain, 2002-2018.



Notes:

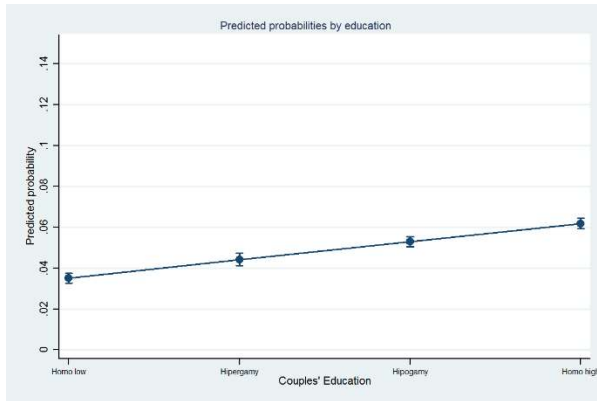
1 Patterns indicate low representation of the group.

2 Percentages within the legend indicate the structure of the sample.

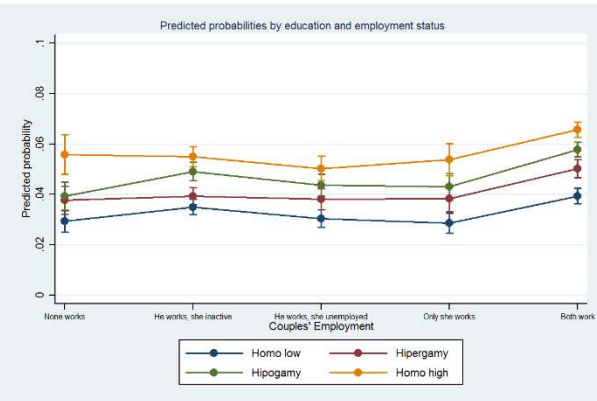
Source: SLFS, 2002-2018.

Figure 4: Predicted probabilities of the likelihood of having a child. Spain, 2002-2018.

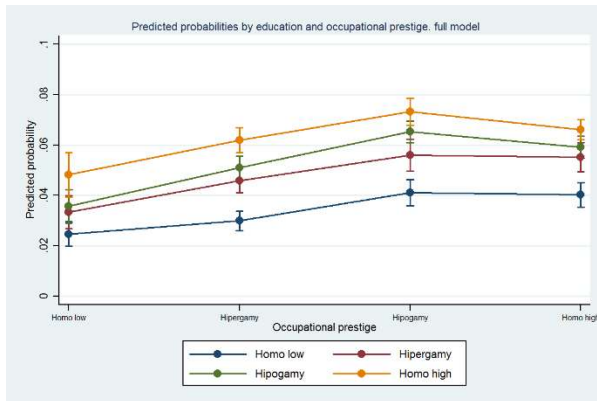
4a) Education



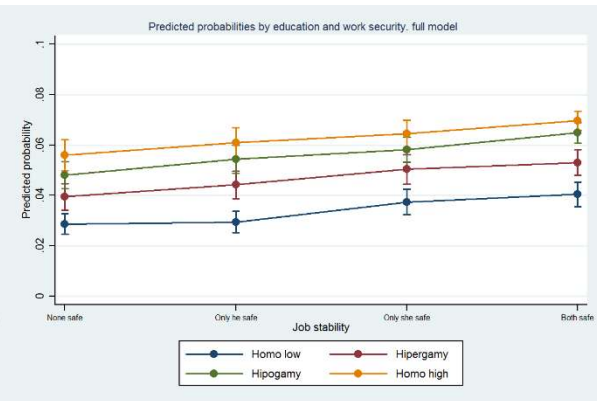
4b) Education + Employment



4c) Education + Occupation



4b) Education + Job Stability



Source: SLFS, 2002-2018.

## Appendix

Table 1: Sample description

N		Do not have a child		Have a child		All women	
		93,876		4,988		98,864	
Period	Expansion	34,109	36.3%	1,979	39.7%	36,088	36.5%
	Recession	31,162	33.2%	1,683	33.7%	32,845	33.2%
	Recovery	28,605	30.5%	1,326	26.6%	29,931	30.3%
Age	20-24	1,516	1.6%	187	3.7%	1,703	1.7%
	25-29	7,512	8.0%	988	19.8%	8,500	8.6%
	30-34	18,162	19.3%	2,203	44.2%	20,365	20.6%
	35-39	30,221	32.2%	1,385	27.8%	31,606	32.0%
	40-44	36,465	38.8%	225	4.5%	36,690	37.1%
Other children in the household	No	15,821	16.9%	4,448	89.2%	20,269	20.5%
	Yes	78,055	83.1%	2,986	59.9%	81,041	82.0%
Couples education	Homogamy low	19,406	20.7%	705	14.1%	20111	20.3%
	Homogamy high	28,279	30.1%	1864	37.4%	30143	30.5%
	Hypergamy	16,576	17.7%	767	15.4%	17343	17.5%
	Hypogamy	29,615	31.5%	1652	33.1%	31267	31.6%
Couples employment	Both work	52782	56.2%	3186	63.9%	55968	56.6%
	Only he works, she is unemployed	9935	10.6%	426	8.5%	10361	10.5%
	Only he works, she is inactive	19890	21.2%	913	18.3%	20803	21.0%
	Only she works	6112	6.5%	266	5.3%	6378	6.5%
	Neither work	5157	5.5%	197	3.9%	5354	5.4%
Couples occupation	Homogamy low	3,429	6.5%	116	3.6%	3,545	6.3%
	Homogamy high	20,104	38.1%	1,281	40.2%	21,385	38.2%
	Hypergamy	13,697	26.0%	718	22.5%	14,415	25.8%
	Hypogamy	15,552	29.5%	1,071	33.6%	16,623	29.7%
Working hours	Both full time	38,077	72.1%	2,463	77.3%	40,540	72.4%
	He has part time	1,031	2.0%	58	1.8%	1,089	1.9%
	She has part time	13,165	24.9%	645	20.2%	13,810	24.7%
	Both part time	509	1.0%	20	0.6%	529	0.9%
Job security	Both safe	27,131	51.4%	1,820	57.1%	28,951	51.7%
	Only she safe	10,078	19.1%	601	18.9%	10,679	19.1%
	Only safe	7,949	15.1%	418	13.1%	8,367	14.9%
	None safe	7,590	14.4%	344	10.8%	7,934	14.2%

Source: SLFS, 2002-2018.

Table 2: Odds ratio of the likelihood of having a child for partnered women between 20 and 49 years old. All couples.

		All couples 20-44	
VARIABLES	VARIABLES	Model I Education	Model II Education+Employment
Couples education (Ref: Hypergamy)	Homogamy low	0.799*** (0.044)	0.815*** (0.045)
	Hypogamy	1.029 (0.047)	1.021 (0.047)
	Homogamy high	1.279*** (0.058)	1.249*** (0.057)
Couples employment (Ref: Only he works, she is inactive)	Neither work		0.751*** (0.062)
	He works, she unemployed		0.727*** (0.045)
	Only she works		0.751*** (0.056)
	Both work		1.012 (0.042)
Period (Ref: 2002-07)	Recession (2008-12)	0.931* (0.033)	0.962 (0.034)
	Recovery (2013-18)	0.874*** (0.033)	0.912* (0.035)
Female partners' age (ref: 20-24)	25-29	1.046 (0.089)	1.019 (0.087)
	30-34	1.108 (0.091)	1.069 (0.088)
	35-39	0.469*** (0.040)	0.449*** (0.038)
	40-44	0.066*** (0.007)	0.063*** (0.007)
Previous children (Ref: No)	Yes	0.547*** (0.018)	0.552*** (0.019)
Constant	Constant	0.163*** (0.014)	0.175*** (0.016)
Observations	Observations	98,864	98,864

se in parentheses

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.1

Source: SLFS, 2002-2018.



Table 3: Odds ratio of the likelihood of having a child for partnered women between 20 and 49 years old. Dual-earner couples.

		Dual-earner 20-44	
VARIABLES	VARIABLES	Model III	Model IV
Couples education (Ref: Hypergamy)	Homogamy low	0.744*** (0.061)	0.768** (0.063)
	Hypogamy	1.029 (0.065)	1.022 (0.065)
	Homogamy high	1.232*** (0.075)	1.200** (0.073)
Couples Occupation (Ref: Hypergamy)	Homogamy low	0.706*** (0.074)	0.723** (0.076)
	Hypogamy	1.122* (0.060)	1.094+ (0.059)
	Homogamy high	1.102+ (0.055)	1.083 (0.055)
Period (Ref: 2002-07)	Recession (2008-12)	1.007 (0.045)	0.998 (0.044)
	Recovery (2013-18)	0.914+ (0.043)	0.924+ (0.044)
Female partners' age (ref: 20-24)	25-29	1.247+ (0.163)	1.187 (0.155)
	30-34	1.420** (0.181)	1.306* (0.167)
	35-39	0.625*** (0.081)	0.569*** (0.075)
	40-44	0.082*** (0.013)	0.074*** (0.011)
Previous children (Ref: No)	Yes	0.569*** (0.024)	0.584*** (0.025)
Working hours (Ref: she has part time)	Both part time		0.667+ (0.157)
	He has part time		0.919 (0.133)
	Both full time		1.088+ (0.052)
Employment stability (Ref: only he safe)	Neither safe		0.999 (0.076)
	Only she safe		1.190** (0.080)
	Both safe		1.380*** (0.080)
Constant	Constant	0.124*** (0.017)	0.104*** (0.015)
Observations	Observations	55,968	55,931

se in parentheses; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.1  
Source: SLFS, 2002-2018.