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Gendered division of housework and childcare and women's intention to have a second child in Spain

Cristina Suero[1,2*]

*Correspondence:
cristina.suero@cchs.csic.es;
cristina.suero@alumnos.uc3m.es

[1] Institute of Economics, Geography and Demography, Spanish National Research Council (CSIC), Madrid, Spain
[2] Department of Social Sciences, Universidad Carlos III de Madrid, Madrid, Spain

Abstract

The Gender Revolution Theory forecasts a rise in fertility as gender equality increases and permeates the private sphere. However, empirical evidence across different societies has not always been conclusive, which suggests further research on the relationship between gender equality and fertility is needed. This research aims to assess the impact of the distribution of housework and childcare within the couple on one-child mothers' fertility intentions in Spain. The educational expansion in recent decades has facilitated women's mass entry into the workforce in this country. Nevertheless, the distribution of unpaid labour remains quite gendered and public support for families is scarce, making family/work balance challenging, especially for women. Using data from the 2018 Spanish Fertility Survey, the results suggest that when the distribution of housework is highly unbalanced between mothers and fathers, women are less likely to intend to have a second child. In contrast, unequal childcare workload does not substantially impact their intention to have a second child. Furthermore, whereas women's satisfaction with the distribution of housework and childcare does not seem to moderate the effect of distribution, their education level slightly does. University-educated women are more likely to revise their fertility intentions downwards when the distribution is highly unequal.

Keywords: Fertility intentions, Second births, Gendered division of labour, Housework, Childcare, Spain

Introduction

Over the last decade, the relationship between gender equality and fertility has been largely explained by the Gender Revolution Theory (Goldscheider et al., 2015). This theory predicts an increase in fertility when gender equality permeates the private sphere and men take a more active role in housework and childcare responsibilities (Hochschild & Machung, 1989; McDonald, 2000, 2013). The Gender Revolution Theory relied on the experience of the Nordic countries to illustrate the positive association between gender equality within the family sphere and fertility (Duvander et al., 2019). These countries recorded the highest levels of women's participation in the labour force for decades, characterised by a more equal sharing of household responsibilities than other countries,

and policies that promoted active fatherhood (Andersson et al., 2009; Duvander et al., 2019; Esping-Andersen, 2009). Moreover, they did not experience the very low fertility rates prevailing in other European countries (Anderson & Kohler, 2015). Nevertheless, around 2010, fertility levels in the Nordic countries began to decline without undergoing a parallel reduction in gender equality (Hellstrand et al., 2020, 2021; Jalovaara et al., 2019). This shift in trends poses a challenge to gender theories of family change and calls for further research on the relationship between gender equality and fertility (Hellstrand et al., 2021), particularly in other countries that are at different stages of the Gender Revolution.

The Spanish context is of particular interest in assessing this relationship. It is a lowest-low fertility context (Kohler et al., 2002) situated in an intermediate stage of the Gender Revolution: recent decades have seen the proportion of women with tertiary education increase considerably (Ortiz & Rodriguez-Menés, 2016), with an ensuing mass entry into the labour force (Guinea-Martin et al., 2018). However, the distribution of unpaid labour within couples continues to rest largely on the shoulders of women (Abril et al., 2015; Moreno-Colom, 2017).

Previous quantitative research conducted in the 2000s on gender equality and fertility in Spain found that the division of childcare between women and men had no effect on fertility (Brodmann et al., 2007; Cooke, 2009), but Spanish society has undergone profound transformations since then, including rapid changes in family dynamics (Borràs et al., 2021; Bueno, 2020; Domínguez-Folgueras & Castro-Martín, 2013; García-Román, 2021). However, despite the relevance of the Spanish case, there have been no quantitative data in the last two decades to appropriately assess the relationship between gender equality within the family and fertility. Using data from the 2018 Spanish Fertility Survey (SFS), this study aims to fill this gap in the literature by focusing on the relationship between the distribution of housework and childcare within couples and one-child mothers' fertility intentions. The analysis also explores the interaction between the allocation of household chores (objective component) and the satisfaction with that distribution (subjective component), as well as the moderating role of women's educational level.

Theoretical framework and hypotheses

Theoretical approaches to the link between the gendered distribution of unpaid labour and fertility

In most high-income societies, gender equality in the public sphere has notably increased. Recent decades have seen the proportion of women with tertiary education grow substantially, surpassing men's educational attainment. Consequently, the proportion of hypogamous couples is also increasing (Esteve et al., 2016b; Klesment & van Bavel, 2017; van Bavel et al., 2018). As the proportion of women participating in the labour force has also markedly increased, dual-earner couples have become the most common form of family (García Román, 2013).

Traditional approaches, such as the New Home Economics (NHE), have argued that fertility is relatively high when there is a division of paid and unpaid work between men and women. When women enter the workforce, fertility falls due to the difficulties of balancing household and paid work, and the opportunity costs that childbearing places

on them (Becker, 1993). The Second Demographic Transition (SDT) theory (Lesthaeghe, 1995) also anticipates a negative relationship between gender equality and fertility. According to the SDT, a long-lasting shift in family values has taken place in Europe since the late 1960s, resulting in the weakening of the family as an institution (Sobotka, 2008; Van de Kaa, 2002). One of the consequences of this is a decline in fertility (Lesthaeghe, 2010).

In contrast, the Gender Revolution Theory (GRT) (Goldscheider et al., 2015) and the Multiple Equilibrium Framework (MEF) (Esping-Andersen & Billari, 2015) forecast a reversal of fertility trends as gender equality progresses. The GRT argues that fertility initially declines in the first part of the Gender Revolution as gender equality increases in society. Women attain higher levels of education, enter the workforce, and begin to face the double burden of domestic and paid work responsibilities (Hochschild & Machung, 1989). However, in the second part of the Gender Revolution, fertility is expected to rise again as gender equality increases in the family sphere and men shoulder a greater share of domestic responsibilities, relieving women of this the double burden (Goldscheider et al., 2015).

The MEF also argues that fertility is likely to increase as gender attitudes and the division of labour become more egalitarian. According to this framework, fertility declines in the transitional stage going from a family equilibrium characterised by gender specialisation to a new equilibrium where both men and women share responsibilities inside and outside the home (Esping-Andersen & Billari, 2015).

All the approaches mentioned above are consistent with the initial stage of the Gender Revolution: fertility declines as women enter the public spheres of education and employment. They disagree, however, on what comes next: a fertility reversal, a stabilisation at very low level or a further decline (Lesthaeghe, 2020). Given that no society has achieved a very high level of gender equality in the domestic sphere so far, the ultimate implications of the changing roles of women and men for fertility are still uncertain (Lappegård, 2020).

Additional factors, therefore, need to be determined in the study of the fertility decision-making process, aside from gender (in)equality. Firstly, male fertility intentions should be taken into consideration (Testa & Bolano, 2021). The couple usually make a joint decision to have a child (Hollerbach, 1980). Although there may be disagreements (Duvander et al., 2020), men's and women's intentions influence each other (Thomson, 1997). If men take on more household responsibilities, they may also endure the 'double shift' and reduce their fertility intentions (Okun & Raz-Yurovich, 2019), influencing women's intentions. Secondly, distinct socioeconomic groups react differently to the institutional context and may obtain unique benefits from social policies. Low- and high-educated individuals may face different barriers when forming a family (van Bavel, 2012). Therefore, these differences need to be considered to understand fertility patterns and trends (Lappegård, 2020). Lastly, the intersection of the context and the micro–macro level are important here (Lappegård & Kornstad, 2019). The level of gender equality within a society may affect the relationship between gender equality and fertility in the private sphere and vice versa. In this respect, public policies and social norms play an essential role as instruments that may influence family dynamics and gender-role transitions (Oláh et al., 2021).

Research on gender equality and fertility at the micro-level

A growing number of studies have assessed whether couples in fairer arrangements where men are more involved in family responsibilities have different fertility preferences and behaviours than less egalitarian couples. Empirical results have not been entirely conclusive and vary to a large extent according to the context.

In the Nordic countries, most studies have shown a positive relationship between gender-egalitarian behaviours within the family and fertility. In Norway, a longitudinal study found that an unbalanced distribution of housework between men and women (either when men or women do more) was associated with a lower probability of having a(nother) child. For the transitions to the first and second child, that probability declined when men did a higher share of housework than their partners. In contrast, for the transition to the third child, couples where women took on a greater burden of care had a lower likelihood of enlarging their families. Moreover, among couples with one child, women satisfied with the division of childcare were more prone to have a second child (Dommermuth et al., 2017). Positive effects of fathers' involvement in childcare on fertility were also found in Sweden (Duvander et al., 2010; Oláh, 2003). In Finland, men's participation in housework did not seem to increase the likelihood of a couple having a second child, whereas involvement in childcare did (Miettinen et al., 2015).

Studies focused on Southern Europe, conversely, have shown mixed results. A comparison between Italy and Spain found that, while the degree of fathers' involvement in childcare had no effect on the probability of having a second child in Spain, in Italy there was an inverted U-shaped relationship among dual-earner couples (Cooke, 2009). Comparing Denmark and Spain, Brodmann et al. (2007) found that fathers' involvement in childcare had no effect on the likelihood of having a second child in Spain. In Italy, an analysis of second and third birth transitions showed that the contribution of fathers in childcare increased the probability of a second birth, but their participation in housework did not (Mencarini & Tanturri, 2004). When analysing women's fertility intentions to have a second child and the realisation of those intentions in Italy, Rinesi and colleagues showed that there was no positive effect of fathers' involvement in housework (Rinesi et al., 2011). For the same context, Fiori (2011) indicated a weak positive impact of paternal involvement in childcare and housework on women's intention to have a second child. The effect of men's participation in household responsibilities may also depend on women's employment status. A previous study found that it increased the intention to have a second child only among working mothers (Pinnelli & Fiori, 2008).

In other countries in Europe, the results have also been inconsistent. In Germany, a U-shaped relationship was identified between fathers' involvement in childcare and the transition to a second child. In contrast, no effect was observed regarding male participation in housework (Cooke, 2004). A recent study in this country showed a positive association between women's satisfaction with the division of housework and the probability of having first and second births (Köppen & Trappe, 2019). In the United Kingdom, an inverted U-shaped relationship was observed between the share of housework among one-child mothers and the transition to the second child (Schober, 2013).

Looking outside of Europe, a U-shaped relationship was found in the United States, as the most traditional and egalitarian couples were the most likely to have a second

child (Torr & Short, 2004). Similar results were reported for Australia, considering the actual sharing of housework and satisfaction with the division of unpaid labour (Luppi, 2016).

The Spanish case

The Spanish context represents an insightful case study to examine fertility trends in general, and the relationship between gender equality and fertility in particular. Spanish fertility has been at very low levels for a long time (Billari & Kohler, 2004; Castro-Martín & Martín-García, 2013; Kohler et al., 2002), with total fertility rates below 1.4 children per woman for the last three decades, driven mainly by relatively high rates of childlessness and a low rate of parity progression to two children (Esteve et al., 2016a). Cohort fertility rates have also been below 1.4 for all cohorts born after 1965 (Esteve et al., 2021). Moreover, the age at first motherhood is one of the highest in the world after Italy. In 2018, the average age at first birth among women was 31, while the average age in the European Union (EU-28) was 29.2 (Eurostat, 2018).[1] Unfavourable economic and labour conditions including high unemployment rates, precarious employment, difficulties in balancing work and family and inadequate access to affordable housing have influenced Spanish fertility decisions for decades (Adsera, 2011; Bernardi & Requena y Díez de Revenga, 2003; Castro-Martín & Martín-García, 2016).

Spain is a familistic country where childcare support from the State is limited (Esping-Andersen, 2009). The public expenditure on family benefits is among the lowest of the OECD countries: 1.3% of the GDP, while the average of the OECD is 2.3% (OECD, 2017). The role of grandparents as informal caregivers has therefore become essential (Rutigliano & Lozano, 2022). Pre-school enrolment rates in 2018 were 12% among children younger than 1 year old, 40% among 1-year-olds and 60% among 2-year-olds (OECD Publishing, 2020). However, public pre-school provision for children under the age of 3 does not meet the demand. Despite these adverse childrearing conditions, fertility ideals have not decreased overall; they have remained around two children per woman, leading to a wide gap between desired and actual fertility (Castro-Martín & Martín-García, 2013).

Women's education levels in Spain have increased considerably in recent decades (Ortiz & Rodríguez-Menés, 2016). The percentage of individuals with tertiary education in 2018 was 50.1% among women and 38.4% among men (Eurostat, 2018). In parallel, gender-egalitarian values have become widespread (Arpino et al., 2015; Knight & Brinton, 2017). According to the European Values Study (2017), 58% of the European population aged between 18 and 45 disagree or strongly disagree with the statement 'family life suffers when a woman has a full-time job'. In Spain, this figure increases to 74.2%.

Despite this apparently egalitarian context for women, there is an unequal division of labour among Spanish couples (Abril et al., 2015; Borràs et al., 2021; Botía-Morillas, 2019), particularly after the birth of the first child (Seiz et al., 2019). According to the European Quality of Life survey, 2017, women spend around 38 h caring for their children per week, while men only spend 23 (Eurofund, 2017). Not surprisingly, women

[1] Data from 2018 were selected to overlap with the year of the Spanish Fertility Survey.

work part-time far more often than men. According to data from the Spanish Labour Force Survey, 2018, around 24% of working women were in part-time employment, compared to 7% of men (INE, 2018).

Hypotheses

Fertility intentions 'involve a specific decision to pursue an actionable goal, with an associated commitment and, commonly, a plan for implementing the decision' (Miller, 2011, p. 78). Since the decision to have a child depends largely on individuals' previous experiences (Presser, 2001), one-child mothers' parenting experience is likely to influence their desire to increase their families. If women experience a 'double shift' (Hochschild & Machung, 1989) and do not receive the appropriate support from their partners (Cheng & Hsu, 2020), they may feel that an additional child would increase their burden and, thus, prefer not to expand their families. Therefore, Hypothesis 1 is as follows:

H1. Women in couples with an unequal distribution of unpaid labour have a lower probability of intending to have a second child.

It is necessary to distinguish between the distribution of housework and the distribution of childcare (Coltrane, 2000). With the arrival of a new child, the amount of housework and childcare tasks increases considerably. Although the latter increases more, childcare is often considered more pleasant and rewarding. In contrast, housework is regarded as dull and tedious (Sullivan, 2013). Thus, Hypothesis 2 is as follows:

H2. The distribution of housework has a more decisive effect on a mother's probability of intending to have a second child than the distribution of childcare.

Neyer and colleagues also reported differences in fertility intentions depending on whether the analysis focuses on equality (the actual division of chores) or equity (the personal perception of that division) (Neyer et al., 2013). Given that the subjective perception of fairness shapes satisfaction with the division of domestic labour (Fraser, 1994; Neyer et al., 2013), and previous studies have found that the level of satisfaction with the workload distribution moderates the relationship between the gender distribution of unpaid labour and fertility (Riederer et al., 2019), Hypothesis 3 is as follows:

H3. Women's satisfaction with the distribution of unpaid labour moderates the effect of the actual workload distribution on fertility intentions.

Lastly, previous research has shown how having a child has different implications for women with low and high levels of education (Evertsson, 2016; Jalovaara et al., 2019). Since highly educated women tend to choose gender-egalitarian partners (Van Bavel, 2012), have higher bargaining power (Brodmann et al., 2007), and may face different constraints in balancing work and family life (Jalovaara et al., 2019), it seems reasonable to consider how the relationship between gender equality and fertility varies at different educational attainment levels (Lappegård, 2020). Therefore, Hypothesis 4 is as follows:

H4. A woman's education level moderates the effect of the distribution of unpaid labour on fertility intentions.

Data and analytical strategy

Data

This study uses data from the 2018 Spanish Fertility Survey (SFS), a cross-sectional survey conducted by the Spanish Statistical Office using a representative sample of 14,556 women and 1619 men aged 18 to 55. It contains information on the respondents' fertility intentions and the gendered distribution of household responsibilities, among other relevant characteristics.[2] The analytical sample is confined to women aged 18 to 44 with one biological or adopted child, who lived with their male partners and were neither pregnant nor sterilised. In order to assess the effect of the distribution of childcare, the sample is restricted to mothers of children up to 13 years old, and excludes some cases because of missing information, giving an analytical sample of 1164 women.

The dependent variable is women's intention to have a second child within the following 3 years, a more accurate measure than long-term intentions (Schoen et al., 1999; Testa & Basten, 2014). As shown in Table 1 in the Appendix, 44.8% of one-child mothers in the sample intend to have a second child in the following 3 years. The main explanatory variables to be evaluated are the distribution of housework and the distribution of childcare within the couple, measured as follows.

The distribution of housework data is collected from a question that asks women to estimate the approximate percentage of housework that they, their partners, and other persons usually do. The share of housework done by the couple is re-scaled to exclude the housework performed by other persons:

$$\text{Percentage of housework} = \frac{P_{\text{w}}}{P_{\text{w}} + P_{\text{M}}} \times 100,$$

where P_{W} represents the percentage of housework performed by the woman, and P_{M} the percentage of housework done by the man. I identified four categories, which record the percentage of housework done by the women out of the total housework performed by couples, namely: 0–40%, 41–60%, 61–80%, and more than 80%.

The distribution of childcare data is obtained from a question including a battery of ten childcare activities, where women indicated who mainly performs each of them.[3] The proportion of activities done by the woman out of the total number of activities performed by the couple is calculated:

$$\text{Percentage of childcare} = \frac{A_{\text{w}} + A_{\text{c}} \times 0.5}{A_{\text{w}} + A_{\text{c}} + A_{\text{M}}} \times 100,$$

where A_{W} refers to the activities done by the woman, A_{c} to the activities done by the couple (shared), and A_{M} to the activities done by the man. This variable is later transformed into the same four categories as the distribution of housework.

[2] More details about the survey can be found online at https://www.ine.es.

[3] The response options are: respondent, partner, respondent and partner equally, grandparents, a different person from the household, a different person not from the household, and children do it themselves.

Women were also asked about their satisfaction with the distribution of housework and childcare on a scale from 0 to 10. Given the skewed distribution of their responses (mean satisfaction with childcare = 8.04; mean satisfaction with housework = 7.25), women's satisfaction is classified into two categories: 9–10 (highly satisfied) and 0–8 (less satisfied). Their education level is recorded using a binary indicator which identifies the women who have completed university education.

Finally, several variables that have been shown to influence fertility intentions are included in the analysis as controls. Firstly, the models control for the proportion of housework and childcare performed by other individuals, as the ability to rely on external help may help women's life–work balance and affect their fertility intentions (Baizán, 2009; Rutigliano, 2020). Moreover, the child's age is relevant, as it affects both the type of childcare activities the couple must address and their fertility intentions (Berrington, 2004; Quesnel-Vallée & Morgan, 2003).[4] An additional variable indicates whether the partner had other children from previous relationships.[5]

Secondly, following previous research, a block of variables is included that controls for those characteristics which may influence fertility intentions and the distribution of household responsibilities: women's age (Sobotka & Beaujouan, 2018); the migrant background of either partner (Brini et al., 2022; Kraus & Castro-Martín, 2018); women's educational attainment (McDonald, 2006), and whether their partner has a higher, similar, or lower educational level (Brodmann et al., 2007).[6]

Thirdly, since job conditions play a considerable role in fertility decisions and the distribution of chores (Bueno & Brinton, 2019; Busetta et al., 2019), the models control for women's attachment to the labour force (full-time, part-time, unemployed and inactive) and men's labour force status (self-employed, employed, unemployed/inactive).

Finally, all models include overall satisfaction with the relationship to account for the possibility that their dissatisfaction with the distribution of unpaid work might reflect more profound relationship issues (Berninger et al., 2011). Descriptive information about all these variables can be found in Table 1 in the Appendix.[7]

Analytical strategy

Logistic regression models are used to analyse the relationship between the gender distribution of housework and childcare and women's intention to have a second child in the following 3 years. Each distribution is assessed separately in order to avoid possible interferences between them. The first step involves carrying out a regression analysis where fertility intentions (Y) is predicted by the distribution of unpaid labour (D) and a vector of controls (Z) (Model 1). Then, the interaction between the distribution of household responsibilities and the satisfaction with that distribution (S) is added to assess whether satisfaction moderates the effect of the distribution (Model 2). Finally,

[4] The youngest child's age was used because, although the sample was confined to one-child mothers, in some cases (6.7%), a step-child also lived in the household.

[5] Living in the same household or not.

[6] The two partners were considered to have the similar educational level when they had both completed non-compulsory studies, compulsory studies, post-secondary non-tertiary education and university education.

[7] The descriptive information used weights provided by the Spanish Statistical Office (INE) to account for the sampling design.

the interaction of the distribution of chores with women's educational level (E) (Model 3) is evaluated:

$$M1 : \text{logit}(Y_i) = \alpha + \beta D_i + \phi \boldsymbol{Z_i} + \varepsilon_i,$$

$$M2 : \text{logit}(Y_i) = \alpha + \beta D_i + \gamma S_i + \varphi D_i \times S_i + \phi \boldsymbol{Z_i} + \varepsilon_i,$$

$$M3 : \text{logit}(Y_i) = \alpha + \beta D_i + \varphi D_i \times E_i + \phi \boldsymbol{Z_i} + \varepsilon_i.$$

For clarity, the main results are shown graphically as predicted probabilities, although complete models can be found in Appendix B (Tables 2, 3, 4, 5, 6). To analyse the interactions, I assess whether the Average Partial Effect (APE) of the distribution of chores varies over the categories of the two moderating variables (Mize, 2019). A second difference test is carried out to test the statistical significance of that difference (Long & Freese, 2014).

Results

Women's fertility intentions by distribution of housework and childcare: a bivariate analysis

Figure 1 describes one-child mothers' share of housework and childcare and their satisfaction with that distribution.[8] As previous literature has documented (Abril et al., 2015; Borràs et al., 2021; Botía-Morillas, 2019), Spanish women perform the greatest share of chores in Europe. Over two-thirds of women declare that they do more than 60% of housework or childcare tasks. Only about 2% of one-child mothers report that

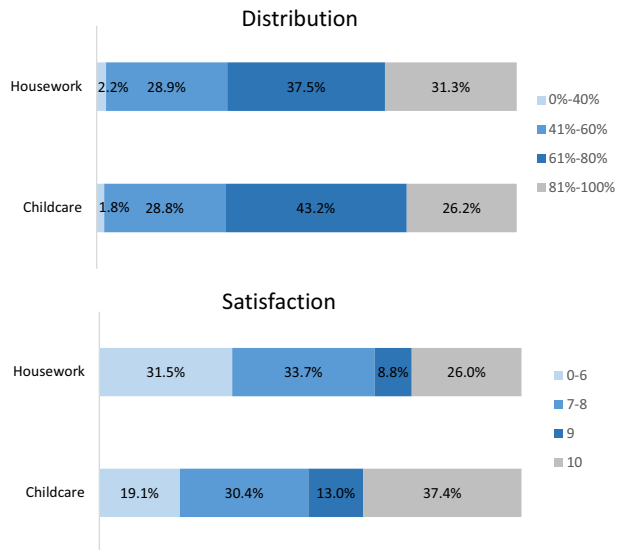

Fig. 1 Percentage of housework and childcare duties performed by women and reported satisfaction levels. Percentages are weighted

[8] The descriptive statistics of the rest of the variables can be found in Table 1 of the Appendix.

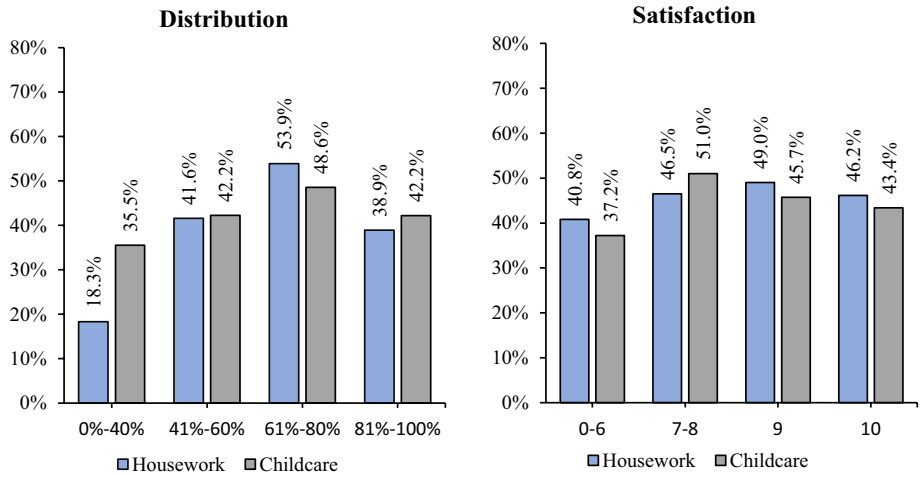

Fig. 2 Percentage of women intending to have another child, by housework and childcare distribution and satisfaction. Percentages are weighted

their partners do more than 60% of housework or childcare, and around 30% state that they have a balanced distribution (as they perform between 41 and 60% of the total workload).

Regarding satisfaction with the allocation of household responsibilities, women are more satisfied with the distribution of childcare than of housework tasks. However, they stated that they were quite satisfied with both distributions. On a scale from 0 to 10, only 32% and 19% of women reported a satisfaction level below 7 with the allocation of housework and childcare duties, respectively. In this regard, it is important to note that more women receive childcare support than housework support from their partners and from other relatives.

Figure 2 depicts the percentage of women who intend to have a second child, by share in the couple's division of housework and childcare. Fertility intentions peaked among women performing between 61 and 80% of chores: 53.9% intend to have a second child doing that amount of housework, and 48.6% intend to have a second child performing that amount of childcare. In comparison, women in very unfavourable distributions (where they are responsible for more than 80% of chores) have lower fertility intentions. Additionally, only 18% of women in favourable distributions of housework (0–40%) intend to have a second child, and just 36% of women in favourable distributions of childcare (0–40%) plan to increase their family size. Therefore, a slight inverted U-shaped relationship is observed between fertility intentions and women's share of both housework and childcare.

The effect of the distribution of housework and childcare on fertility intentions: a multivariate analysis

Figure 3 shows the findings from the multivariate analyses. The results barely change after including the controls. The probability of intending to have a second child

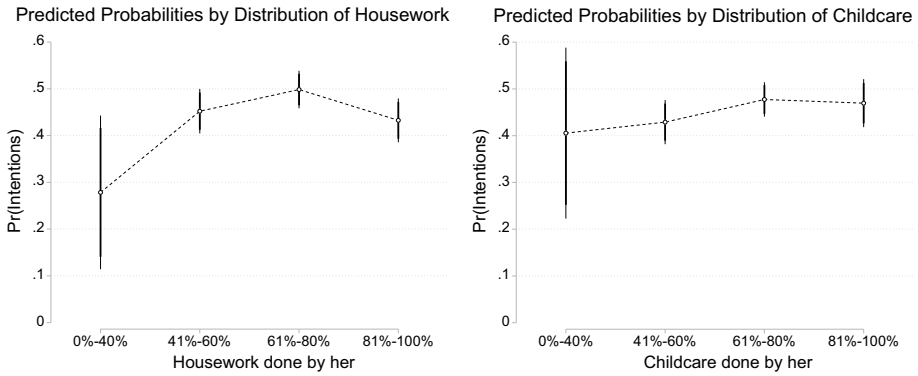

Fig. 3 Predicted probabilities of one-child mothers' fertility intentions by housework and childcare distribution. Error bars at 90% (thin) and 95% (thick). Models control for housework/childcare duties done by other individuals, woman's age, child's age, migrant background, women's attachment to the labour force, men's labour force status, differences in partners' educational attainment, partner's children and women's partnership satisfaction

peaks when women do between 61 and 80% of the housework (predicted probability = 0.498). Among women with a heavy load (81–100%), that probability decreases by 6.6 percentage points (p-value = 0.039), a statistically significant negative effect. This finding is in line with previous research conducted in Italy and the Netherlands (Mills et al., 2008).

Women with egalitarian distributions of housework (41–60%) are also less likely to intend to have a second child than women who perform 61–80% of the total housework, although in this case, the differences are not statistically significant (APE = − 0.046; p-value = 0.145). However, women with favourable distributions of housework (0–40%) had the lowest probability of intending to have a second child (predicted probability = 0.278). This result is intriguing, although it has already been observed in other contexts (Dommermuth et al., 2017). The additional analysis included in Appendix C shows the specific characteristics of this particular group of women. Apart from being a small group (2.2% of the sample), it encompasses a larger proportion of women that work full-time (79% versus 52%) and a larger proportion of women whose partners work part-time (21 versus 6%) or are unemployed or inactive (23% versus 8%) than the rest of the sample. Although all models control for both variables, the descriptive statistics show that this group of women is somewhat different from the rest, so that the possibility of other unobserved factors affecting this group of women cannot be excluded.

In turn, the distribution of childcare does not seem to significantly influence fertility intentions. The estimated probability of intending to have a second child remains around 45%, irrespectively of the share of childcare done by women. This finding endorses previously observed differences between the effect of the distribution of housework and childcare (Sullivan, 2021). It is also consistent with previous studies

that have documented the fact that the distribution of childcare in Spain does not affect fertility intentions (Brodmann et al., 2007; Cooke, 2009).

These results only partly confirm Hypothesis 1. The results corroborate that when the distribution of housework is highly unbalanced, women's fertility intentions are lower. However, the relationship between women's share of housework and fertility intentions is not linear, as anticipated, but resembles an inverted-U pattern. Women who do much more or much less work than their partners have lower fertility intentions. There are no significant differences between women who perform 61–80% of the housework, and those in couples with egalitarian distributions. It is not the distribution of all household responsibilities that affects the respondents' fertility intentions, but the distribution of housework. This result is in line with Hypothesis 2, which posited that the distribution of housework is more important than the distribution of childcare for one-child mothers' fertility intentions.

The effect of the variables included in the models as controls is as expected. University-educated women and women who receive childcare support from other individuals (not their partners), are more likely to intend to have a second child. Conversely, there is a negative relationship between a woman's age and her fertility intentions and between the first child's age and fertility intentions. When women are in a hypogamous partnership in education terms, the probability of intending to have a second child is also lower; so it is when their partner has children from other relationships or when women are unsatisfied with their relationship. The rest of the variables do not substantially impact women's fertility intentions.

The moderation effect of women's satisfaction with the distribution of unpaid labour

In order to assess whether women's satisfaction with the distribution moderates the effect of the distribution of unpaid labour an interaction effect between both variables was included. The estimated probabilities of intending a second child are depicted graphically in Fig. 4. Light lines represent high satisfaction levels (9–10), and dark curves represent lower satisfaction (0–8).

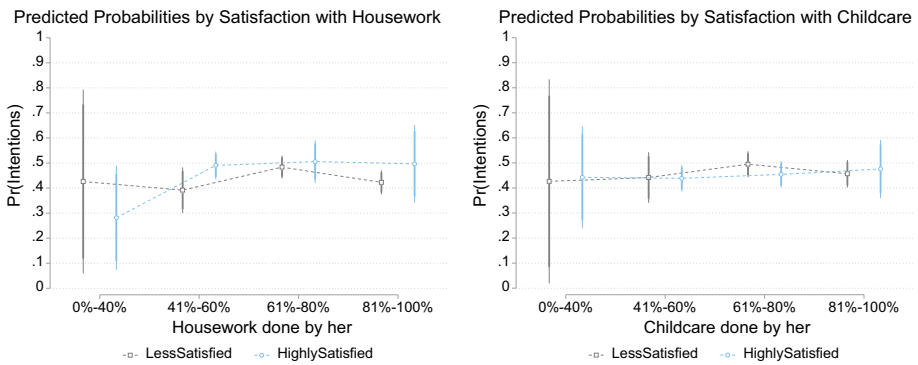

Fig. 4 Predicted probabilities of one-child mothers' fertility intentions. Interaction between housework/childcare distribution and mothers' satisfaction. Error bars at 90% (thin) and 95% (thick). Models control for housework/childcare duties done by other individuals, woman's age, child's age, migrant background, women's attachment to the labour force, men's labour force status, differences in partners' educational attainment, partner's children and women's partnership satisfaction

Contrary to the expectations posited in Hypothesis 3, satisfaction with the distribution of unpaid labour does not seem to play an important moderating role. There is no significant effect of the gendered distribution of housework among women with high levels of satisfaction, except when they have a favourable distribution (0–40%), in which case they have the lowest fertility intentions (Predicted probability = 0.282). Women with lower levels of satisfaction reduce their intentions when they have a very unfavourable division of labour (> 80%) compared to those with unfavourable distributions (61–80%). In that case, the probability of intending to have a second child declines from 0.484 to 0.423 (AME = − 0.061; p-value = 0.081). In turn, the satisfaction with the distribution of childcare does not influence women's fertility intentions, regardless of whether they are highly satisfied or less satisfied with the distribution of labour.

Heterogeneity in the effect of the distribution of chores by women's educational attainment

Finally, an analysis was made of whether the effect of the distribution of housework and childcare varies across women's educational attainment. Figure 5 distinguishes between the fertility intentions of university-educated women (light line) and less-educated women (dark line) according to their share of housework and childcare. Interestingly, the effect of the distribution of housework only influences the fertility intentions of university-educated women. Again, an inverted-U pattern is observed for this group. Fertility intentions peak when highly educated women do 61–80% of the housework (58.6% intend to have a second child) and decline when they do most of the housework. The probability of highly educated women in favourable distributions (0–40 having a second child is much lower (17.8%). In contrast, around 43% of less-educated women intend to have a second child regardless of the distribution of housework. As for childcare, there are no significant differences between women with high and low education attainment.

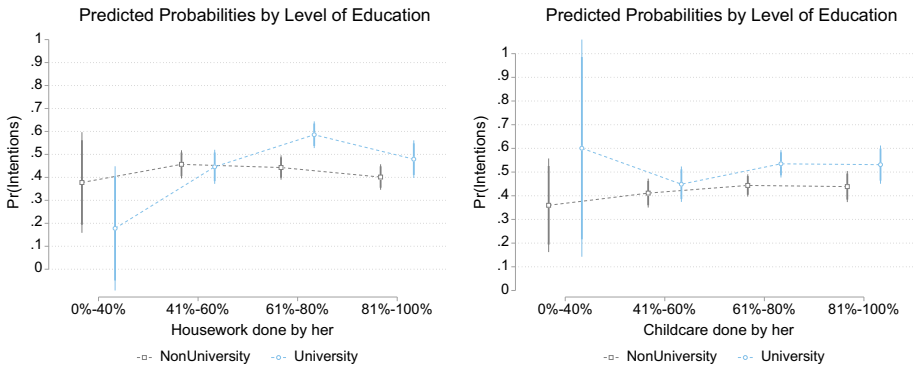

Fig. 5 Predicted probabilities of one-child mothers' fertility intentions. Interaction between housework/childcare distribution and mothers' educational attainment. Error bars at 90% (thin) and 95% (thick). Models control for housework/childcare duties done by other individuals, woman's age, child's age, migrant background, women's attachment to the labour force, men's labour force status, differences in partners' educational attainment, partner's children and women's partnership satisfaction

The educational attainment of women moderates the effect of the distribution of chores on the intention to have a second child (Hypothesis 4), but only for housework. Highly educated women reduce their intentions compared to their less-educated counterparts when the distribution of labour is highly unequal, regardless of whether it is the woman or the man who performs the largest part of housework. The bargaining power of highly educated women with their partners (Zhou & Kan, 2019) may be behind this result, as they may have considered the degree of involvement of their partners in household responsibilities (among other factors) when making reproductive decisions.

Additional analyses and robustness checks

In order to ensure the robustness and consistency of the results, several robustness checks are conducted. The results are shown in Appendix C. The first type of analysis assesses the internal validity of the main explanatory variables: the distribution of housework and childcare. The analyses are rerun using a different indicator: the proportion of housework and childcare women performs over the total workload (including what other individuals do), instead of the proportion the woman performs out of the total workload. Figure 6 in the Appendix shows that the results do not change substantively under the two alternative definitions of the distribution of housework and childcare.

The second type of analysis focussed on a selected subgroup of the analytical sample to further examine the results. Firstly, women in partnerships where both partners work full-time are examined, since these women may bear the 'double shift' more directly and reflect more clearly the transitional stage of the Gender Revolution. Figure 7 shows the results of this analysis. The outcomes are similar to the findings obtained among the whole sample. Nevertheless, among this group of women, those with a highly unequal distribution of childcare (81–100%) have a lower probability of intending to have a second child, and the difference is statistically significant (p-value: 0.08).

Secondly, only mothers with children under 6 years old were considered. Women with a strong desire for two children may have already moved to the second by the time of the interview and may not be included in the analytical sample. To avoid this possible bias, and assuming that women with a solid intention to have a second child will have it shortly after the first, the analyses are rerun among mothers of younger children. Figure 8 in Appendix 3 reports the results of the analysis. The findings do not differ broadly from the initial analyses. Although the effects are smaller and not statistically significant, there is still a decline in fertility intentions among women doing more than 80% of housework and among women in favourable distributions (0–40%).

Thirdly, the socio-demographic profile of women whose share of housework is 0–40% is examined. This is an atypical group where men perform significantly more housework

than women. In order to draw a profile showing their particular characteristics, Table 7 in Appendix C shows the descriptive statistics of this group of women. This group contains a larger proportion of women working full-time and with partners working part-time or are unemployed or inactive.

Conclusions

Although the Gender Revolution Theory has prevailed in recent years underscoring the importance of gender equality in understanding contemporary fertility patterns and trends, mixed empirical evidence across different societal contexts has highlighted the need to continue evaluating empirical evidence for the Gender Revolution arguments and predictions. This research aimed to provide further evidence on the relationship between gender equality and fertility in a lowest-low fertility society (Billari & Kohler, 2004) where the expansion of women's levels of education (Ortiz & Rodríguez-Menés, 2016) was the driver for a rapid spread of egalitarian attitudes among society (Arpino et al., 2015). However, the division of unpaid labour has not adapted to the new circumstances and family-friendly policies remain scarce (Castro-Martín & Martín-García, 2016; Esping-Andersen, 2009).

Inspired by the GRT (Goldscheider et al., 2015), it was expected that a gendered allocation of housework and childcare within the couple would reduce one-child mothers' fertility intentions. Although the overall results partially confirmed this expectation, the conclusions are more nuanced. First, although the distribution of housework between partners impacts women's fertility intentions, the distribution of childcare does not. One may speculate that, in the Spanish context, given the late age at first birth and the large gap between desired and actual fertility (Castro-Martín & Martín-García, 2013), devoting time to childcare could be perceived as a rewarding activity (Sullivan, 2021), and may not negatively influence second-child intentions.

Second, the results suggest an inverted-U pattern relationship between women's share of housework and fertility intentions rather than a linear relationship. On the one hand, women who perform more than 80% of the housework load reduce their fertility intentions compared to women in fairer distributions. This result aligns with the postulates of the GRT. When women carry the bulk of housework and cannot rely on their partners' participation, they may prefer not to enlarge their families (Goldscheider et al., 2015; McDonald, 2000). Nevertheless, women in unfavourable distributions (60–80%) have the highest probability of intending to have a second child. This finding suggests that, despite their generally egalitarian gender attitudes, Spanish women still tolerate a certain level of inequality in the distribution of chores (Abril et al., 2015). The shift from an inegalitarian to a more egalitarian society may have taken place so fast in Spain that it has not yet permeated the population's everyday life. Therefore, some women may feel comfortable with an unequal distribution of household responsibilities when it is not

heavily unbalanced. In fact, that is in line with women's declared satisfaction with the allocation of housework and childcare: in spite of unequal distributions, women report a high level of satisfaction, revealing that the perception of fairness in the division of unpaid work does not necessarily align with the (in)equality of that division (Gonzalez et al., 2018; Koster et al., 2022).

On the other hand, women whose partners perform a higher percentage of housework than them have a lower probability of intending to have a second child. Although this result may seem counter-intuitive, in a context where balancing work and family is challenging, men involved in housework may also face this 'double shift', which may reduce their fertility intentions, and ultimately downgrade their partners' fertility intentions (Okun & Raz-Yurovich, 2019). Moreover, some other factors affecting this uncommon distribution of housework may also impact women's low fertility intentions, such as material reasons, which are among the main causes of the low fertility in the country (Adsera, 2011; Castro-Martín & Martín-García, 2016). Similar results were found in a very different context, in Norway, where the probability of having a second child was lower when men took a leading role in housework (Dommermuth et al., 2017). Even so, one should be cautious with this result due to the small sample size (2%) and the possible selectivity of this group of women. For instance, the 2018 SFS does not provide information on health issues or other circumstances that may explain this atypical allocation of chores.

Regarding the moderating effect of satisfaction with the distribution, only a weak effect is found. Women who perform more than 80% of housework reduce their fertility intentions compared to women who do a lower amount of housework only when they are less satisfied, but not when they are highly satisfied with their share. In turn, the decline in fertility intentions among highly satisfied women is only observed when their partners perform more housework than them. One may speculate that this group of women may be afraid that a new child would alter the state of things and would therefore be less willing to increase their family size. However, as already noted, the limited size of this group of women in the sample does not permit firm conclusions to be drawn.

As for the moderating role of women's educational attainment, the slight inverted U-shaped relationship between housework and fertility intentions only holds true for highly educated women. They may have higher bargaining power in their partnerships (Kühhirt, 2012) and, therefore, make fertility decisions more directly based on their partners' support. Surprisingly, among their less educated counterparts, who presumably face more barriers to work–family reconciliation, their partners' share of housework does not seem to influence their fertility intentions. This shows how different socioeconomic groups have different needs and behave differently in the process of family formation (van Bavel, 2012), as well as highlighting the importance of considering the level of education to understand fertility trends (Lappegård, 2020).

Finally, it is important to acknowledge some limitations in this research. Firstly, the analysis only includes women. The results would be more insightful if both women's and men's intentions were included (Trimarchi & Van Bavel, 2017). However, the SFS did not collect partners' fertility intentions, and the sample of one-child fathers is too small to conduct a parallel analysis ($n = 414$). Secondly, the distribution of household workload was self-reported by women, who may overstate their contribution and downplay their partners' share. Nevertheless, previous studies using the Time Use Survey have shown a very similar pattern of domestic work distribution in Spain (Borràs et al., 2021; González & Jurado-Guerrero, 2009). Thirdly, the questions in the SFS for the distribution of housework and childcare were not in a similar format, but were re-coded in a similar fashion to facilitate comparison.

Notwithstanding its shortcomings, this piece of research adds new empirical evidence to the study of the relationship between gender equality and fertility by using recent data to examine a lowest-low fertility country in an intermediate stage of the Gender Revolution. If the perception of a 'double shift' by women—when they do more than their partners at home—or by men—when they do more than women—is one of the reasons of lowest-low fertility levels in Spain, the availability of public policies that contribute to alleviating this double shift will be of particular importance. This research suggests that these public policies should be designed to lessen the burden of both women and men, something particularly important in Spain, where public support for families is scarce (Esping-Andersen, 2009). The results show that women who receive childcare support from other individuals (not their partners) are more likely to intend to have a second child, which seems to point to a need for care alternatives that relieve the burden. Some new public policies aimed at promoting men's participation in childcare have been recently implemented in Spain. The equalisation of paternal and maternity leave (16 weeks) in 2021 might foster fathers' involvement in family responsibilities and fertility intentions in the future (Meil et al., 2021). More policies in this direction are needed in order to promote a new gender equilibrium (Esping-Andersen & Billari, 2015), release the excessive burden on women, facilitate the balance between work and family life, and contribute to closing the gap between desired and actual fertility in Spain (Castro-Martín & Martín-García, 2013).

To conclude, this research largely supports the relevance of the Gender Revolution Theory in understanding fertility patterns in a country situated in an intermediate stage of the Revolution—relatively high gender equality in the public sphere but still low in the private sphere. Although there is no linear relationship between gender equality within the family and fertility intentions currently in Spain, a highly unequal distribution of housework reduces women's likelihood to intend to have a second child.

Appendix A. Descriptive information

See Table 1.

Table 1 Descriptive statistics of the variables included in the models

Variable	%	Variable	%
Intention to have a second child in the following 3 years		*Mothers' characteristics*	
Yes	44.8%	Type of job	
No	55.2%	Full-time	52.2
Housework distribution and satisfaction		Part-time	20.9
Proportion of housework performed by the mother		Unemployed	12.1
0–40%	2.2%	Inactive	14.8
41–60%	28.9%	University education	
61–80%	37.5%	Yes	37.3
81–100%	31.3%	No	62.7
Mother's satisfaction with housework distribution		Age	
0–6	31.5%	< 35 years	34.6
7–8	33.7%	35–39 years	35.3
9	8.8%	> 39 years	30.1
10	26.0%	*Partner's characteristics*	
Childcare distribution and satisfaction		Type of job	
Proportion of childcare performed by the mother		Employed	76.5
0–40%	1.8%	Self-employed	15.4
41–60%	28.8%	Unemployed / inactive	8.1
61–80%	43.2%	*Couple's characteristics*	
81–100%	26.2%	Combination of educational attainment	
Mother's satisfaction with childcare distribution		Man has higher educational attainment	15.5
0–6	19.1%	Similar educational attainment	49.4
7–8	30.4%	Woman has higher educational attainment	35.1
9	13.0%	Mothers' satisfaction with the relationship	
10	37.4%	0–6	6.1
Proportion of workload done by other individuals		7–8	22.0
Childcare		9	19.7
0%	66.3%	10	52.2
1–30%	19.4%	Migrant (either partner)	
31–100%	14.4%	Yes	24.1
Housework		No	75.9
0%	82.3%	*N*	1164
1–30%	10.6%		
31–100%	7.1%		
Child characteristics			
Youngest child's age			
< 3 years	37.8%		
3–5 years	24.4%		
6–13 years	37.8%		
Presence of partner's children			
Yes	6.7%		
No	93.3%		
N	1164		

Results are weighted

Appendix B. Full results from the multivariate analysis

See Tables 2, 3, 4, 5, and 6.

Table 2 Logit models: housework

	Model 1		Model 2		Model 3	
	Coef. (std. error)	***P>z***	**Coef. (std. error)**	***P>z***	**Coef. (std. error)**	***P>z***
Proportion of housework done by women						
0–40%	− 1.255 (0.539)	0.02	− 0.416 (1.060)	0.695	− 0.337 (0.653)	0.606
41–60%	− 0.254 (0.174)	0.145	− 0.545 (0.292)	0.062	0.040 (0.224)	0.858
61–80% (Ref.)						
81–100%	− 0.362 (0.175)	0.039	− 0.376 (0.191)	0.049	− 0.232 (0.215)	0.282
Mothers' satisfaction with housework distribution						
0–8 (Ref.)						
9–10			− 0.021 (0.273)	0.939		
Distribution of housework## Satisfaction						
0–40% Highly satisfied			− 1.079 (1.250)	0.388		
41–60% Highly satisfied			0.409 (0.403)	0.309		
61–80% Highly satisfied (Ref.)						
81–100% Highly satisfied			0.112 (0.495)	0.822		
University education						
Yes	0.403 (0.169)	0.017	0.403 (0.169)	0.017	0.744 (0.247)	0.003
No (Ref.)						
Distribution of housework##University						
0–40% University					− 2.596 (1.304)	0.047
41–60% University					− 0.725 (0.350)	0.039
61–80% University (Ref.)						
81–100% University					− 0.310 (0.360)	0.388
Proportion of housework done by other individuals						
0% (Ref.)						
1–30%	0.013 (0.254)	0.96	0.026 (0.255)	0.918	0.020 (0.255)	0.939
31–100%	0.034 (0.285)	0.906	0.062 (0.290)	0.832	0.015 (0.286)	0.958
Age						
< 35 years	0.770 (0.171)	0.000	0.761 (0.171)	0.000	0.765 (0.172)	0.000
35–39 years (Ref.)						
> 39 years	− 1.152 (0.180)	0.000	− 1.151 (0.181)	0.000	− 1.145 (0.181)	0.000
Child's age						
< 3 years	0.626 (0.176)	0.000	0.633 (0.177)	0.000	0.625 (0.177)	0.000
3–6 years (Ref.)						
6–13 years	− 0.674 (0.188)	0.000	− 0.670 (0.189)	0.000	− 0.713 (0.190)	0.000
Migrant background (either partner)						
Yes	0.096 (0.193)	0.62	0.092 (0.195)	0.636	0.131 (0.195)	0.501
No (Ref.)						
Women's attachment to the labour force						
Full-time	− 0.221 (0.218)	0.31	− 0.212 (0.221)	0.338	− 0.228 (0.218)	0.296
Part-time	− 0.162 (0.241)	0.501	− 0.145 (0.244)	0.553	− 0.172 (0.242)	0.477
Unemployed	− 0.165 (0.268)	0.537	− 0.157 (0.270)	0.562	− 0.173 (0.268)	0.519
Inactive (Ref.)						
Men's labour force status						
Self-employed (Ref.)						

Table 2 (continued)

	Model 1		Model 2		Model 3	
	Coef. (std. error)	***P>z***	**Coef. (std. error)**	***P>z***	**Coef. (std. error)**	***P>z***
Employed	− 0.191 (0.195)	0.326	− 0.185 (0.195)	0.343	− 0.187 (0.196)	0.339
Unemployed / inactive	0.263 (0.305)	0.388	0.277 (0.306)	0.364	0.231 (0.305)	0.449
Differences in partners' educational attainment						
Man has higher educational attainment	− 0.062 (0.215)	0.774	− 0.062 (0.215)	0.775	− 0.055 (0.215)	0.798
Similar educational attainment (Ref.)						
Woman has higher educational attainment	− 0.309 (0.159)	0.052	− 0.304 (0.159)	0.056	− 0.301 (0.160)	0.06
Presence of partner's children						
Yes	− 1.146 (0.360)	0.001	− 1.179 (0.362)	0.001	− 1.194 (0.363)	0.001
No (Ref.)						
Mother's satisfaction with the relationship						
0–6	− 0.888 (0.323)	0.006	− 0.869 (0.326)	0.008	− 0.875 (0.323)	0.007
7–8	− 0.288 (0.178)	0.106	− 0.255 (0.184)	0.166	− 0.299 (0.179)	0.096
9	− 0.233 (0.188)	0.215	− 0.217 (0.191)	0.255	− 0.244 (0.189)	0.197
10 (Ref.)						
Const.	0.582 (0.326)	0.074	0.554 (0.341)	0.104	0.457 (0.334)	0.171

Table 3 Logit models: childcare

	Model 1		Model 2		Model 3	
	Coef. (std. error)	***P>z***	**Coef. (std. error)**	***P>z***	**Coef. (std. error)**	***P>z***
Proportion of childcare done by women						
0–40%	− 0.400 (0.535)	0.455	− 0.215 (1.083)	0.843	− 0.525 (0.586)	0.37
41–60%	− 0.268 (0.171)	0.117	− 0.218 (0.325)	0.502	− 0.156 (0.216)	0.471
61–80% (Ref.)						
81–100%	− 0.044 (0.178)	0.806	− 0.208 (0.217)	0.336	− 0.069 (0.224)	0.758
Mothers' satisfaction with childcare distribution						
0–8 (Ref.)						
9–10			− 0.285 (0.213)	0.181		
Distribution of childcare## Satisfaction						
0–40% Highly satisfied			− 0.148 (1.240)	0.905		
41–60% Highly satisfied			0.032 (0.385)	0.934		
61–80% Highly satisfied (Ref.)						
81–100% Highly satisfied			0.450 (0.420)	0.284		
University education						
Yes	0.433 (0.166)	0.009	0.442 (0.167)	0.008	0.491 (0.230)	0.033
No (Ref.)						
Distribution of childcare##University						

Table 3 (continued)

	Model 1		Model 2		Model 3	
	Coef. (std. error)	***P>z***	**Coef. (std. error)**	***P>z***	**Coef. (std. error)**	***P>z***
0–40% University					0.907 (1.440)	0.529
41–60% University					− 0.292 (0.344)	0.396
61–80% University (Ref.)						
81–100% University					0.063 (0.362)	0.863
Proportion of childcare done by other individuals						
0% (Ref.)						
1–30%	0.331 (0.184)	0.073	0.326 (0.185)	0.078	0.326 (0.185)	0.078
31–100%	0.117 (0.237)	0.62	0.105 (0.237)	0.659	0.113 (0.236)	0.632
Age						
< 35 years	0.738 (0.170)	0.000	0.749 (0.171)	0.000	0.727 (0.170)	0.000
35–39 years (Ref.)						
> 39 years	− 1.189 (0.181)	0.000	− 1.193 (0.181)	0.000	− 1.202 (0.182)	0.000
Youngest child's age						
< 3 years	0.683 (0.178)	0.000	0.671 (0.178)	0.000	0.690 (0.178)	0.000
3–6 years (Ref.)						
6–13 years	− 0.692 (0.196)	0.000	− 0.691 (0.197)	0.000	− 0.693 (0.197)	0.000
Migrant (either partner)						
Yes	0.081 (0.191)	0.672	0.082 (0.192)	0.669	0.085 (0.191)	0.656
No (Ref.)						
Women's attachment to the labour force						
Full-time	− 0.162 (0.213)	0.447	− 0.146 (0.213)	0.493	− 0.173 (0.213)	0.418
Part-time	− 0.135 (0.239)	0.571	− 0.121 (0.239)	0.612	− 0.149 (0.240)	0.535
Unemployed	− 0.140 (0.266)	0.6	− 0.124 (0.267)	0.642	− 0.146 (0.267)	0.583
Inactive (Ref.)						
Men's labour force status						
Self-employed (Ref.)						
Employed	− 0.151 (0.194)	0.435	− 0.140 (0.194)	0.471	− 0.152 (0.194)	0.433
Unemployed/inactive	0.302 (0.303)	0.319	0.331 (0.305)	0.278	0.297 (0.304)	0.327
Combination of educational attainment						
Man has higher educational attainment	− 0.009 (0.214)	0.968	− 0.016 (0.215)	0.942	− 0.026 (0.215)	0.904
Similar educational attainment (Ref.)						
Woman has higher educational attainment	− 0.329 (0.158)	0.037	− 0.347 (0.159)	0.029	− 0.336 (0.158)	0.034
Presence of partner's children						
Yes	− 1.156 (0.362)	0.001	− 1.178 (0.363)	0.001	− 1.166 (0.363)	0.001
No (Ref.)						
Mother's satisfaction with the relationship						
0–6	− 0.932 (0.325)	0.004	− 0.961 (0.329)	0.004	− 0.933 (0.325)	0.004
7–8	− 0.366 (0.178)	0.04	− 0.424 (0.184)	0.021	− 0.373 (0.179)	0.038
9	− 0.238 (0.186)	0.203	− 0.275 (0.190)	0.147	− 0.254 (0.187)	0.175
10 (Ref.)						
Const.	0.335 (0.313)	0.284	0.483 (0.335)	0.149	0.339 (0.317)	0.284

Table 4 Predicted probabilities and average partial effects of the distribution of housework and childcare

	Housework			Childcare		
	Estimate	**SE**	***p*-value**	**Estimate**	**SE**	***p*-value**
P(Intention)						
0–40% (1)	0.278	0.084	0.001	0.406	0.093	0.000
41–60% (2)	0.452	0.024	0.000	0.429	0.024	0.000
61–80% (3)	0.498	0.020	0.000	0.477	0.019	0.000
81–100% (4)	0.433	0.024	0.000	0.470	0.026	0.000
Average partial effects						
(2)-(1)	0.174	0.087	0.046	0.024	0.096	0.806
(3)-(2)	0.046	0.032	0.145	0.048	0.031	0.116
(3)-(1)	0.22	0.086	0.011	0.072	0.095	0.451
(4)-(3)	− 0.066	0.032	0.039	-0.08	0.032	0.806
(4)-(2)	− 0.02	0.035	0.578	0.041	0.037	0.267
(4)-(1)	0.154	0.088	0.078	0.064	0.097	0.51

Table 5 Predicted probabilities and average partial effects of the interaction in Model 2

	Housework			Childcare		
	Estimate	**SE**	***p*-value**	**Estimate**	**SE**	***p*-value**
P(Intention): Satisfaction ## Distribution						
Less satisfied, 0–40% (1)	0.426	0.187	0.023	0.427	0.208	0.040
Less satisfied, 41–60% (2)	0.392	0.046	0.000	0.442	0.051	0.000
Less satisfied, 61–80% (3)	0.484	0.023	0.000	0.495	0.027	0.000
Less satisfied, 81–100% (4)	0.423	0.025	0.000	0.457	0.028	0.000
Highly satisfied, 0–40% (1)	0.282	0.106	0.008	0.443	0.104	0.000
Highly satisfied, 41–60% (2)	0.491	0.028	0.000	0.439	0.026	0.000
Highly satisfied, 61–80% (3)	0.506	0.043	0.000	0.454	0.027	0.000
Highly satisfied, 81–100% (4)	0.497	0.079	0.000	0.476	0.059	0.000
Average partial effects: distribution						
Less satisfied, (2)-(1)	− 0.034	0.192	0.858	0.015	0.213	0.943
Less satisfied, (3)-(2)	0.092	0.052	0.076	0.053	0.059	0.365
Less satisfied, (3)-(1)	0.057	0.189	0.761	0.068	0.21	0.745
Less satisfied, (4)-(3)	− 0.061	0.035	0.081	− 0.038	0.039	0.333
Less satisfied, (4)-(2)	− 0.003	0.189	0.986	0.03	0.21	0.885
Less satisfied, (4)-(1)	0.031	0.053	0.559	0.015	0.059	0.798
Highly satisfied, (2)-(1)	0.209	0.109	0.056	− 0.004	0.107	0.971
Highly satisfied, (3)-(2)	0.015	0.053	0.771	0.016	0.038	0.681
Highly satisfied, (3)-(1)	0.224	0.115	0.052	0.012	0.108	0.913
Highly satisfied, (4)-(3)	− 0.009	0.09	0.916	0.022	0.065	0.736
Highly satisfied, (4)-(2)	0.006	0.086	0.945	0.037	0.066	0.567
Highly satisfied, (4)-(1)	0.215	0.135	0.112	0.034	0.12	0.78

Table 6 Predicted probabilities and average partial effects of the interaction in Model 3

	Housework			Childcare		
	Estimate	**SE**	***p*-value**	**Estimate**	**SE**	***p*-value**
P(Intention): Education ## distribution						
Non-University, 0–40% (1)	0.378	0.112	0.001	0.360	0.101	0.000
Non-University, 41–60% (2)	0.457	0.031	0.000	0.411	0.031	0.000
Non-University, 61–80% (3)	0.443	0.027	0.000	0.444	0.024	0.000
Non-University, 81–100% (4)	0.402	0.028	0.000	0.439	0.033	0.000
University, 0–40% (1)	0.178	0.138	0.197	0.601	0.234	0.010
University, 41–60% (2)	0.446	0.038	0.000	0.449	0.038	0.000
University, 61–80% (3)	0.586	0.030	0.000	0.535	0.030	0.000
University, 81–100% (4)	0.479	0.042	0.000	0.531	0.041	0.000
Average partial effects: distribution						
Non-university, (2)-(1)	0.079	0.115	0.494	0.051	0.105	0.623
Non-university, (3)-(2)	− 0.014	0.042	0.741	0.032	0.04	0.417
Non-university, (3)-(1)	0.065	0.115	0.57	0.084	0.104	0.421
Non-university, (4)-(3)	− 0.041	0.04	0.297	− 0.005	0.041	0.907
Non-university, (4)-(2)	0.024	0.116	0.838	0.079	0.107	0.459
Non-university, (4)-(1)	− 0.055	0.044	0.205	0.028	0.047	0.556
University, (2)-(1)	0.268	0.143	0.062	− 0.152	0.236	0.519
University, (3)-(2)	0.14	0.048	0.004	0.086	0.049	0.077
University, (3)-(1)	0.408	0.141	0.004	− 0.066	0.236	0.779
University, (4)-(3)	− 0.106	0.052	0.04	− 0.003	0.051	0.946
University, (4)-(2)	0.033	0.059	0.568	0.083	0.058	0.156
University, (4)-(1)	0.301	0.145	0.037	− 0.07	0.239	0.771

Appendix C. Additional analyses and sensitivity analyses

See Table 7 and Figs. 6, 7, 8.

Table 7 Descriptive statistics of women experiencing favourable distributions of housework and the rest

	0–40%	**41–100%**		**0–40%**	**41–100%**
Intention to have a second child within the following 3 years			Couple's educational level		
Yes	18.3%	45.5%	He has higher educational level	23.2%	15.3%
No	81.7%	54.6%	Equal educational level	36.3%	49.7%
Proportion of housework duties done by other persons			She has higher educational level	40.5%	35.0%
0%	85.9%	82.3%	Women's attatchment to the labour force		
1–30%	13.3%	10.5%	Full time	79.4%	51.6%
31–100%	7.8%	7.3%	Part time	14.9%	21.1%
Proportion of childcare duties done by other persons			Unemployed	0.0%	12.4%
0%	62.39%	66.37%	Inactive	5.7%	15.0%
1–30%	21.5%	19.3%	Men's attatchment to the labour force		
31–100%	16.1%	14.3%	Full time	47.2%	71.2%

Table 7 (continued)

	0–40%	41–100%		0–40%	41–100%
Proportion of childcare performed by women			Part-time	20.8%	5.5%
0–40%	9.41%	1.63%	Unemployed	9.4%	5.1%
41–60%	39.93%	28.58%	Inactive	13.8%	2.7%
61–80%	37.43%	43.34%	Work sector		
81–100%	13.23%	26.45%	Private	90.8%	60.4%
Satisfaction with the sharing (Housework)			Public	3.4%	12.3%
0–6	0.78%	32.19%	Not working	5.7%	27.3%
7–8	28.63%	33.81%	Civil status		
9	21.80%	8.53%	Married	98.6%	71.1%
10	48.80%	25.47%	Non-married	1.4%	28.9%
Satisfaction with the sharing (Childcare)			Degree of urbanisation		
0–6	0.0%	19.5%	Urban	32.9%	50.8%
7–8	18.7%	30.7%	Intermediate	51.5%	35.9%
9	6.9%	13.2%	Rural	15.6%	13.4%
10	74.5%	36.6%	Household income		
Satisfaction with the couple			< 500	0.0%	4.3%
0–6	0.0%	6.2%	500–999	19.3%	6.9%
7–8	40.6%	21.6%	1000–1499	19.6%	19.8%
9	16.8%	19.8%	1500–1999	23.8%	17.3%
10	42.6%	52.4%	2000–2499	16.2%	19.1%
Age (mean)	38.6	36.2	2500–2999	15.7%	11.8%
Age first child (mean)	6.95	4.64	3000–4999	5.5%	14.5%
Migrant background (any of the partners)			5000 and more	0.0%	6.3%
Yes	47.8%	23.6%	Family attitudes		
No	52.2%	76.4%	Traditional atittudes	66.9%	42.8%
Educational level			Intermediaten attitudes	17.6%	32.8%
Non-mandatory	11.5%	7.6%	Modern attitudes	15.5%	24.0%
Mandatory	14.5%	11.0%	Disabilities		
Post-mandatory	30.8%	45.0%	Yes	2.3%	2.1%
University	43.2%	37.2%	No	97.7%	97.9%
N	26	1138	*N*	26	1138

Results are weighted

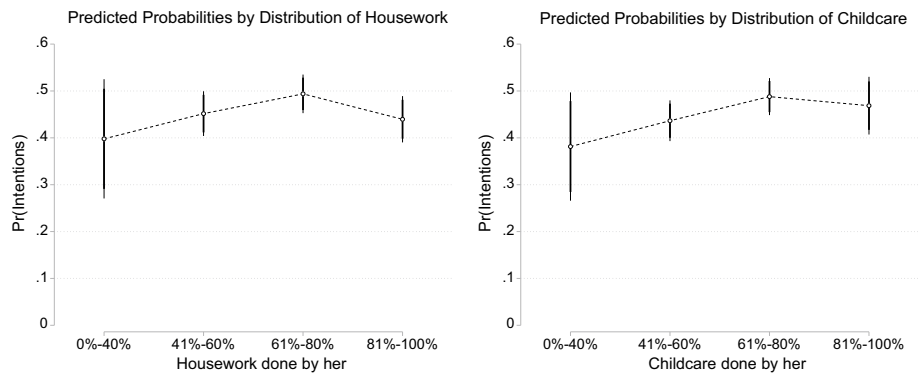

Fig. 6 Predicted probabilities of one-child mothers' fertility intentions by woman's proportion of total burden. Error bars at 90% (thin) and 95% (thick). Models control for housework/childcare duties done by other individuals, woman's age, child's age, migrant background, women's attachment to the labour force, men's labour force status, partners' educational attainment, differences in educational attainment, partner's children and partnership satisfaction

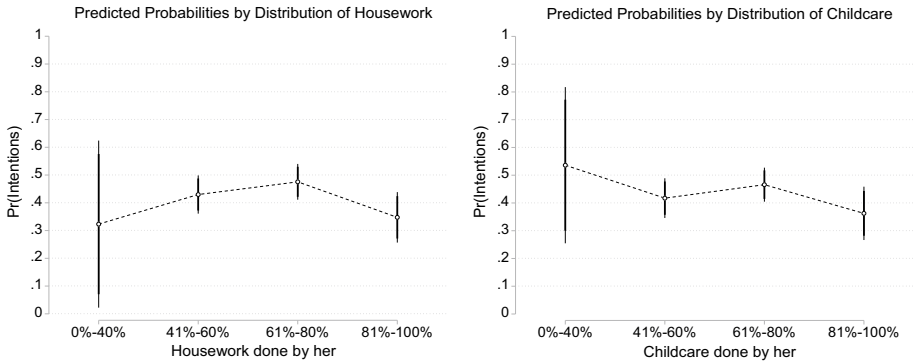

Fig. 7 Predicted probabilities of one-child mothers' fertility intentions by housework/ childcare distribution where both partners work full-time. Error bars at 90% (thin) and 95% (thick). Models control for housework/ childcare duties done by other individuals, woman's age, child's age, migrant background, women's attachment to the labour force, men's labour force status, partners' educational attainment, differences in educational attainment, partner's children and partnership satisfaction

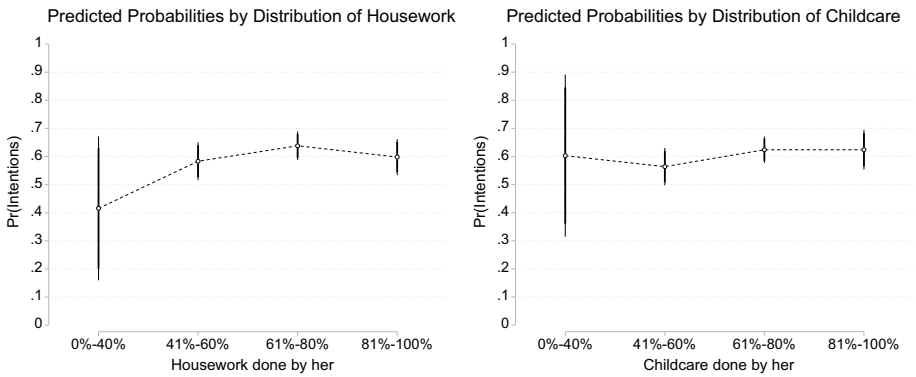

Fig. 8 Predicted probabilities of one-child mothers' fertility intentions by housework/childcare distribution among mothers of children under 6. Error bars at 90% (thin) and 95% (thick). Models control for housework/ childcare duties done by other individuals, woman's age, child's age, migrant background, women's attachment to the labour force, men's labour force status, partners' educational attainment, differences in educational attainment, partner's children and partnership satisfaction

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Availability of data and materials
The data used in the current study are publicly available from the Spanish Statistical Office (INE) webpage in https://www.ine.es. The degree of accuracy or reliability of the information derived from the authors' own calculations is the sole responsibility of the authors themselves.

Declarations

Competing interests
The authors declare that they have no competing interests.

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References

Abril, P., Amigot, P., Botía-Morillas, C., Domínguez-Folgueras, M., González, M. J., Jurado-Guerrero, T., Lapuerta, I., Martín-García, T., Monferrer, J., & Seiz, M. (2015). Egalitarian ideals and traditional plans: Analysis of first-time parents in Spain. *Revista Española De Investigaciones Sociológicas, 150*, 3–22. https://doi.org/10.5477/cis/reis.150.3

Adsera, A. (2011). Where are the babies? Labor market conditions and fertility in Europe. *European Journal of Population, 27*(1), 1–32. https://doi.org/10.1007/s10680-010-9222-x

Anderson, T., & Kohler, H. P. (2015). Low fertility, socioeconomic development, and gender equity. *Population and Development Review, 41*(3), 381–407. https://doi.org/10.1111/j.1728-4457.2015.00065.x

Andersson, G., Rønsen, M., Knudsen, L. B., Lappegård, T., Neyer, G., Skrede, K., Teschner, K., & Vikat, A. (2009). Cohort fertility patterns in the Nordic countries. *Demographic Research, 20*, 313–352. https://doi.org/10.4054/demres.2009.20.14

Arpino, B., Esping-Andersen, G., & Pessin, L. (2015). How do changes in gender role attitudes towards female employment influence fertility? A macro-level analysis. *European Sociological Review, 31*(3), 370–382. https://doi.org/10.1093/esr/jcv002

Baizán, P. (2009). Regional child care availability and fertility decisions in Spain. *Demographic Research, 21*, 803–842. https://doi.org/10.4054/DemRes.2009.21.27

Becker, G. S. (1993). *A treatrise on the family* (Enlarged). Harvard University Press.

Bernardi, F., & Requena y Díez de Revenga, M. (2003). La caída de la fecundidad y el déficit de natalidad en España. *Revista Española De Sociología, 3*, 29–49.

Berninger, I., Weiß, B., & Wagner, M. (2011). On the links between employment, partnership quality, and the intention to have a first child: The case of west Germany. *Demographic Research, 24*, 579–610. https://doi.org/10.4054/DemRes.2011.24.24

Berrington, A. (2004). Perpetual postponers? Women's, men's and couple's fertility intentions and subsequent fertility behaviour. *Population Trends, 117*, 9–19.

Billari, F. C., & Kohler, H. P. (2004). Patterns of low and lowest-low fertility in Europe. *Population Studies, 58*(2), 161–176. https://doi.org/10.1080/0032472042000213695

Borràs, V., Ajenjo, M., & Moreno-Colom, S. (2021). More time parenting in Spain: A possible change towards gender equality? *Journal of Family Studies, 27*(1), 1–16. https://doi.org/10.1080/13229400.2018.144061

Botía-Morillas, C. (2019). Undoing or redoing gender practices? Ambivalences among first-time professional mothers in Spain. *Revista Española De Investigaciones Sociológicas, 166*, 25–44. https://doi.org/10.5477/cis/reis.166.25

Brini, E., Zamberlan, A., & Barbieri, P. (2022). Culture portability from origin to destination country: The gender division of domestic work among migrants in Italy. *Demographic Research, 47*, 577–614. https://doi.org/10.4054/DemRes.2022.47.20

Brodmann, S., Esping-Andersen, G., & Güell, M. (2007). When fertility is bargained: Second births in Denmark and Spain. *European Sociological Review, 23*(5), 599–613. https://doi.org/10.1093/esr/jcm025

Bueno, X. (2020). Fertility decisions in transition: Young adults' perceptions on fertility three decades apart in Spain. *The History of the Family, 25*(3), 386–405. https://doi.org/10.1080/1081602X.2019.1686049

Bueno, X., & Brinton, M. C. (2019). Gender egalitarianism, perceived economic insecurity, and fertility intentions in Spain: A qualitative analysis. *Population Studies, 73*(2), 247–260. https://doi.org/10.1080/00324728.2019.1604979

Busetta, A., Mendola, D., & Vignoli, D. (2019). Persistent joblessness and fertility intentions. *Demographic Research, 40*(8), 185–218. https://doi.org/10.4054/DemRes.2019.40.8

Castro-Martín, T., & Martín-García, T. (2013). The fertility gap in Spain: Late parenthood, few children and unfulfilled reproductive desires. In G. Esping-Andersen (ed.), *The fertility gap in Europe: Singularities of the Spanish case* (Vol. 36, Issue 36, pp. 45–81). Barcelona: 'la Caixa' Welfare Projects.

Castro-Martín, T., & Martín-García, T. (2016). La fecundidad en España: Entre las más bajas del mundo y sin muchas perspectivas de recuperación. *Panorama Social*, 23, 11–25. http://www.funcas.es/Publicaciones/Sumario.aspx?IdRef=4-15023

Cheng, Y.-H., & Hsu, C.-H. (2020). No more babies without help for whom? Education, division of labor, and fertility intentions. *Journal of Marriage and Family, 82*(4), 1270–1285. https://doi.org/10.1111/jomf.12672

Coltrane, S. (2000). Research on household labor: Modeling and measuring the social embeddedness of routine family. *Journal of Marriage and Famliy, 62*(4), 1208–1233. https://doi.org/10.1016/j.tvjl.2013.06.029

Cooke, L. P. (2004). The gendered division of labor and family outcomes in Germany. *Journal of Marriage and Family, 66*(5), 1246–1259. https://doi.org/10.1111/j.0022-2445.2004.00090.x

Cooke, L. P. (2009). Gender equity and fertility in Italy and Spain. *Journal of Social Policy, 38*(1), 123–140. https://doi.org/10.1017/S0047279408002584

Dominguez-Folgueras, M., & Castro-Martin, T. (2013). Cohabitation in Spain: No longer a marginal path to family formation. *Journal of Marriage and Family, 75*(2), 422–437. https://doi.org/10.1111/jomf.12013

Dommermuth, L., Hohmann-Marriott, B., & Lappegård, T. (2017). Gender equality in the family and childbearing. *Journal of Family Issues, 38*(13), 1803–1824. https://doi.org/10.1177/0192513X15590686

Duvander, A. Z., Lappegård, T., & Andersson, G. (2010). Family policy and fertility: Fathers' and mothers' use of parental leave and continued childbearing in Norway and Sweden. *Journal of European Social Policy, 20*(1), 45–57. https://doi.org/10.1177/0958928709352541
Duvander, A. Z., Lappegård, T., Andersen, S. N., Garoarsdóttir, Ó., Neyer, G., & Viklund, I. (2019). Parental leave policies and continued childbearing in Iceland, Norway, and Sweden. *Demographic Research, 40*(51), 1501–1528. https://doi.org/10.4054/DEMRES.2019.40.51
Duvander, A.-Z., Fahlén, S., Brandén, M., & Ohlsson-Wijk, S. (2020). Who makes the decision to have children? Couples' childbearing intentions and actual childbearing. *Advances in Life Course Research*. https://doi.org/10.1016/j.alcr.2019.04.016
Esping-Andersen, G. (2009). *The incomplete revolution: Adapting to women's new roles*. Polity.
Esping-Andersen, G., & Billari, F. C. (2015). Re-theorizing family demographics. *Population and Development Review, 41*(1), 1–31. https://doi.org/10.1111/j.1728-4457.2015.00024.x
Esteve, A., Devolder, D., & Domingo, A. (2016a). Childlessness in Spain: Tick tock, tick tock, tick tock! *Perspectives Demografiques, 1*(001), 1–4.
Esteve, A., Lozano, M., Boertien, D., Mogi, R., & Cui, Q. (2021). Three decades of lowest-low fertility in Spain, 1991–2018. SocArXiv, 2021. https://doi.org/10.31235/osf.io/45j23
Esteve, A., Schwarz, N., van Bavel, J., Permanyer, I., Klesment, M., & García-Román, J. (2016b). The end of hypergamy: Global trends and implications. *Population and Development Review, 42*(4), 615–625. https://doi.org/10.1111/padr.12012
Evertsson, M. (2016). Parental leave and careers: Women's and men's wages after parental leave in Sweden. *Advances in Life Course Research, 29*, 26–40. https://doi.org/10.1016/j.alcr.2016.02.002
Fiori, F. (2011). Do childcare arrangements make the difference? A multilevel approach to the intention of having a second child in Italy. *Population, Space and Place, 17*(5), 579–596. https://doi.org/10.1002/psp.567
Fraser, N. (1994). After the family wage: Gender equity and the welfare state. *Political Theory, 22*(4), 591–618.
García Román, J. (2013). Family time in dual-earner couples. An analysis from the Spanish Time Use Survey. *Estadística Española, 55*(182), 259–282.
García-Román, J. (2021). Does women's educational advantage mean a more egalitarian distribution of gender roles? Evidence from dual-earner couples in Spain. *Journal of Family Studies*. https://doi.org/10.1080/13229400.2021.1915852
Goldscheider, F., Bernhardt, E., & Lappegård, T. (2015). The gender revolution: A framework for understanding changing family and demographic behavior. *Population and Development Review, 41*(2), 207–239. https://doi.org/10.1111/j.1728-4457.2015.00045.x
González, M. J., & Jurado-Guerrero, T. (2009). ¿Cuándo se implican los hombres en las tareas domésticas? Un análisis de la Encuesta de Empleo del Tiempo. *Panorama Social*, second semester, 65–81.
Gonzalez, M. J., Lapuerta, I., Martin-Garcia, T., & Seiz, M. (2018). Satisfaction with work-life balance: Couples with egalitarian practices in their transition to first-time parenthood in Spain. *Annee Sociologique, 68*(2), 341–366. https://doi.org/10.3917/anso.182.0341
Guinea-Martin, D., Mora, R., & Ruiz-Castillo, J. (2018). The evolution of gender segregation over the life course. *American Sociological Review, 83*(5), 983–1019. https://doi.org/10.2307/48588679
Hellstrand, J., Nisén, J., Miranda, V., Fallesen, P., Dommermuth, L., & Myrskylä, M. (2021). Not just later, but fewer: Novel trends in cohort fertility in the Nordic countries. *Demography, 58*(4), 2020–3007. https://doi.org/10.4054/MPIDR-WP-2020-007
Hellstrand, J., Nisén, J., & Myrskylä, M. (2020). All-time low period fertility in Finland: Demographic drivers, tempo effects, and cohort implications. *Population Studies, 74*(3), 315–329. https://doi.org/10.1080/00324728.2020.1750677
Hochschild, A. R., & Machung, A. (1989). *The second shift: Working parents and the revolution at home*. Penguin Books.
Hollerbach, P. E. (1980). Power in families, communication, and fertility decision-making. *Population and Environment*, 3(2), 146–173. https://www.jstor.org/stable/27502903
Jalovaara, M., Neyer, G., Andersson, G., Dahlberg, J., Dommermuth, L., Fallesen, P., & Lappegård, T. (2019). Education, gender, and cohort fertility in the Nordic countries. *European Journal of Population, 35*, 563–586. https://doi.org/10.1007/s10680-018-9492-2
Klesment, M., & van Bavel, J. (2017). The reversal of the gender gap in education, motherhood and women as main earners in Europe. *European Sociological Review, 33*(3), 465–481. https://doi.org/10.1093/esr/jcw063
Knight, C. R., & Brinton, M. C. (2017). One egalitarianism or several? Two decades of gender-role attitude change in Europe. *American Journal of Sociology, 122*(5), 1485–1532. https://doi.org/10.1086/689814
Kohler, H.-P., Billari, F. C., & Ortega, J. A. (2002). The emergence of lowest-low fertility in Europe during the 1990s. *Population and Development Review, 28*(4), 641–680.
Köppen, K., & Trappe, H. (2019). The gendered division of labor and its perceived fairness: Implications for childbearing in Germany. *Demographic Research, 40*(48), 1413–1440. https://doi.org/10.4054/DemRes.2019.40.48
Koster, T., Poortman, A. R., van der Lippe, T., & Kleingeld, P. (2022). Fairness perceptions of the division of household labor: Housework and childcare. *Journal of Family Issues, 43*(3), 679–702. https://doi.org/10.1177/0192513X21993899
Kraus, E. K., & Castro-Martín, T. (2018). Does migrant background matter for adolescents' fertility preferences? The Latin American 1.5 generation in Spain. *European Journal of Population, 34*(3), 277–312. https://doi.org/10.1007/s10680-017-9427-3
Kühhirt, M. (2012). Childbirth and the long-term division of labour within couples: How do substitution, bargaining power, and norms affect parents' time allocation in West Germany? *European Sociological Review, 28*(5), 565–582. https://doi.org/10.1093/esr/jcr026
Lappegård, T. (2020). Future fertility trends are shaped at the intersection of gender and social stratification. *Vienna Yearbook of Population Research, 18*(2020), 1–6. https://doi.org/10.1553/populationyearbook2020.deb04
Lappegård, T., & Kornstad, T. (2019). Social norms about father involvement and women's fertility. *Social Forces*. https://doi.org/10.1093/sf/soz124

Lesthaeghe, R. (1995). The second demographic transition in Western countries: An interpretation. In K. O. Mason & A. M. Jensen (Eds.), *Gender and family change in industrialized countries* (pp. 17–62). Oxford: Clarendon Press. https://doi.org/10.2307/1534906
Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review, 36*(2), 211–251. https://doi.org/10.1111/j.1728-4457.2010.00328.x
Lesthaeghe, R. (2020). The second demographic transition, 1986–2020: sub-replacement fertility and rising cohabitation—a global update. *Genus*. https://doi.org/10.1186/s41118-020-00077-4
Long, J. S., & Freese, J. (2014). *Regression models for categorical dependent variables using Stata* (3rd ed.). Stata Press.
Luppi, F. (2016). When is the second one coming? The effect of couple's subjective well-being following the onset of parenthood. *European Journal of Population, 32*(3), 421–444. https://doi.org/10.1007/s10680-016-9388-y
McDonald, P. (2000). Gender equity in theories of fertility transition. *Population and Development Review, 26*(3), 427–439.
Mcdonald, P. (2006). Low fertility and the state: The efficacy of policy. *Population and Development Review, 32*(3), 485–510. https://doi.org/10.1111/j.1728-4457.2006.00134.x
McDonald, P. (2013). Societal foundations for explaining low fertility: Gender equity. *Demographic Research, 28*(May), 981–994. https://doi.org/10.4054/DemRes.2013.28.34
Meil, G., Rogero-García, J., Romero-Balsas, P., & Díaz-Gandasegui, V. (2021). The impact of paternity leave compared to unemployment on child care and housework distribution in Spain. *Journal of Family Issues*. https://doi.org/10.1177/0192513X211054469
Mencarini, L., & Tanturri, M. L. (2004). Time use, family role-set and childbearing among Italian working women. *Genus, 60*(1), 111–137.
Miettinen, A., Lainiala, L., & Rotkirch, A. (2015). Women's housework decreases fertility: Evidence from a longitudinal study among Finnish couples. *Acta Sociologica (united Kingdom), 58*(2), 139–154. https://doi.org/10.1177/0001699315572028
Miller, W. B. (2011). Differences between fertility desires and intentions: Implications for theory, research and policy. *Vienna Yearbook of Population Research, 9*(1), 75–98. https://doi.org/10.1553/populationyearbook2011s75
Mills, M., Mencarini, L., Tanturri, M. L., & Begall, K. (2008). Gender equity and fertility intentions in Italy and the Netherlands. *Demographic Research, 18*(1), 1–26. https://doi.org/10.4054/demres.2008.18.1
Mize, T. D. (2019). Best practices for estimating, interpreting, and presenting nonlinear interaction effects. *Sociological Science, 6*, 81–117. https://doi.org/10.15195/V6.A4
Moreno-Colom, S. (2017). The gendered division of housework time: Analysis of time use by type and daily frequency of household tasks. *Time and Society, 26*(1), 3–27. https://doi.org/10.1177/0961463X15577269
Neyer, G., Lappegård, T., & Vignoli, D. (2013). Gender equality and fertility: Which equality matters? *European Journal of Population, 29*(3), 245–272. https://doi.org/10.1007/s10680-013-9292-7
OECD. (2020). *Education at a Glance 2020: OECD indicators (OECD Publishing)*. OECD Publishing. https://doi.org/10.1787/69096873-en
Okun, B. S., & Raz-Yurovich, L. (2019). Housework, gender role attitudes, and couples' fertility intentions: Reconsidering men's roles in gender theories of family change. *Population and Development Review, 45*(1), 169–196. https://doi.org/10.1111/padr.12207
Oláh, L. S. (2003). Gendering fertility: Second births in Sweden and Hungary. *Population Research and Policy Review, 22*(2), 171–200. https://doi.org/10.1023/A:1025089031871
Oláh, L., Vignoli, D., & Kotowska, I. E. (2021). Gender roles and families. *Handbook of Labor, Human Resources and Population Economics*. https://doi.org/10.1007/978-3-319-57365-6_23-1
Ortiz, L., & Rodriguez-Menés, J. (2016). The positional value of education and its effect on general and technical fields of education: Educational expansion and occupational returns to education in Spain. *European Sociological Review, 32*(2), 216–237. https://doi.org/10.1093/esr/jcv085
Pinnelli, A., & Fiori, F. (2008). The influence of partner involvement in fatherhood and domestic tasks on mothers' fertility expectations in Italy. *Fathering, 6*(2), 169–191. https://doi.org/10.3149/fth.0602.169
Presser, H. B. (2001). A gender perspective for understanding low fertility in post-transitional societies. *Population and Development Review*, 27(Supplement: Global Fertility Transition), 177–183.
Quesnel-Vallée, A., & Morgan, S. P. (2003). Missing the target? Correspondence of fertility intentions and behavior in the US. *Population Research and Policy Review, 22*(5–6), 497–525.
Riederer, B., Buber-Ennser, I., & Brzozowska, Z. (2019). Fertility intentions and their realization in couples: How the division of household chores matters. *Journal of Family Issues, 40*(13), 1860–1882. https://doi.org/10.1177/0192513x19848794
Rinesi, F., Pinnelli, A., Prati, S., Castagnaro, C., & Iaccarino, C. (2011). Avoir un deuxième enfant en Italie: De l'intention à la réalisation. *Population, 66*(2), 434–450. https://doi.org/10.3917/popu.1102.0434
Rutigliano, R. (2020). Counting on potential grandparents? Adult children's entry into parenthood across European countries. *Demography, 57*, 1393–1414. https://doi.org/10.1007/s13524-020-00890-8
Rutigliano, R., & Lozano, M. (2022). Do I want more if you help me? The impact of grandparental involvement on men's and women's fertility intentions. *Genus*. https://doi.org/10.1186/s41118-022-00161-x
Schober, P. S. (2013). Gender equality and outsourcing of domestic work, childbearing, and relationship stability among British couples. *Journal of Family Issues, 34*(1), 25–52. https://doi.org/10.1177/0192513X11433691
Schoen, R., Astone, N. M., Kim, Y. J., Nathanson, C. A., & Fields, J. M. (1999). Do fertility intentions affect fertility behavior? *Journal of Marriage and Family, 61*(3), 790–799.
Seiz, M., González, M. J., Jurado-Guerrero, T., Lapuerta, I., & Martín-García, T. (2019). Non-normative couples in Spain: mothers career commitment, fathers work arrangements, and egalitarian ideologies. In D. Grunow & M. Evertsson (Eds.), new parents in Europe. Work-care practices, norms and family policies (Elgar Online, pp. 169–186). Edward Elgar Publishing. https://doi.org/10.4337/9781788972970.00019
Sobotka, T. (2008). Overview chapter 6: The diverse faces of the second demographic transition in Europe. *Demographic Research, 19*(8), 171–224. https://doi.org/10.4054/DemRes.2008.19.8

Sobotka, T., & Beaujouan, É. (2018). Late motherhood in low-fertility countries: Reproductive intentions, trends and consequences. In D. Stoop (Ed.), *Preventing age related fertility loss* (pp. 11–29). Springer Cham. https://doi.org/10.1007/978-3-319-14857-1_2
Sullivan, O. (2013). What do we learn about gender by analyzing housework separately from child care? Some considerations from time-use evidence. *Journal of Family Theory & Review, 5*(2), 72–84. https://doi.org/10.1111/jftr.12007
Sullivan, O. (2021). The gender division of housework and child care. In N. F. Schneider & M. Kreyenfeld (Eds.), *Research handbook on the sociology of the family* (pp. 342–354). Edwar Elgar Publishing Limited.
Testa, M. R., & Basten, S. (2014). Certainty of meeting fertility intentions declines in Europe during the 'Great Recession.' *Demographic Research, 31*(1), 687–734. https://doi.org/10.4054/DemRes.2014.31.23
Testa, M. R., & Bolano, D. (2021). When partners' disagreement prevents childbearing: A couple-level analysis in Australia. *Demographic Research, 44*(33), 811–838. https://doi.org/10.4054/demres.2021.44.33
Thomson, E. (1997). Couple childbearing desires, intentions, and births. *Demography, 34*(3), 343–354.
Torr, B. M., & Short, S. E. (2004). Second births and the second shift: A research note on gender equity and fertility. *Population and Development Review, 30*(1), 109–130. https://doi.org/10.1111/j.1728-4457.2004.00005.x
Trimarchi, A., & Van Bavel, J. (2017). Education and the transition to fatherhood: The role of selection into union. *Demography, 54*(1), 119–144. https://doi.org/10.1007/s13524-016-0533-3
van Bavel, J. (2012). The reversal of gender inequality in education, union formation and fertility in Europe. *Vienna Yearbook of Population Research, 10*(1), 127–154. https://doi.org/10.1553/populationyearbook2012s127
van Bavel, J., Schwartz, C. R., & Esteve, A. (2018). The reversal of the gender gap in education and its consequences for family life. *Annual Review of Sociology, 44*(1), 341–360. https://doi.org/10.1146/annurev-soc-073117-041215
Van de Kaa, D. (2002). The idea of a second demographic transition in industrialized countries. Paper Presented at the Sixth Welfare Policy Seminar of the National Institute of Population and Social Security, January, 34.
Zhou, M., & Kan, M.-Y. (2019). A new family equilibrium? Changing dynamics between the gender division of labor and fertility in Great Britain, 1991–2017. *Demographic Research, 40*(50), 1455–1500. https://doi.org/10.4054/demres.2019.40.50

Online databases

European Quality of Life Survey. (2017). Eurofund. https://www.eurofound.europa.eu. Accessed 20 Nov 2022.
Eurostat Data Browser. (2018). Eurostat. https://ec.europa.eu/eurostat/data/database Accessed 1 Nov 2022.
OECD Family Database. (2017). OECD. https://www.oecd.org/els/family/database.htm. Accessed 14 Nov 2022.
Spanish Fertility Survey. (2018). Instituto Nacional de Estadística. https://www.ine.es. Accessed 22 June 2022.
Spanish Labour Force Survey. (2018). Instituto Nacional de Estadística. https://www.ine.es. Accessed 8 Nov 2022.

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