# DEMOGRAPHIC RESEARCH <br> A peer-reviewed, open-access journal of population sciences 

## DEMOGRAPHIC RESEARCH

VOLUME 50, ARTICLE 35, PAGES 1039-1070 PUBLISHED 15 MAY 2024<br>https://www.demographic-research.org/Volumes/Vol50/35/<br>DOI: 10.4054/DemRes.2024.50.35<br>Research Article

## Pathways and obstacles to parenthood among women in same-sex couples in Spain

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# Pathways and obstacles to parenthood among women in same-sex couples in Spain 

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#### Abstract

\section*{BACKGROUND}

Even though same-sex couples face clear obstacles to parenthood, little is known about the extent to which preferences and obstacles can explain the lower levels of parenthood among individuals in same-sex couples.

\section*{OBJECTIVE}

The objective is to document routes into parenthood and to quantify the gap between observed and desired number of children among women in different-sex and same-sex couples in Spain.

\section*{METHODS}

We use the representative 2018 Spanish fertility survey, which includes 14,556 women, of whom 139 are in a same-sex couple. We use coarsened exact matching techniques to match women across couple types who are identical on a set of observable characteristics.

\section*{RESULTS}

Less than half of women in a same-sex couple had children by the age of 40 , as compared to around $80 \%$ of women in a different-sex couple. We do not observe changes in rates of parenthood across cohorts of women in same-sex couples, but do observe changes in the pathways followed. Even though women in same-sex couples have lower levels of desired fertility, the gap between desired and realized fertility is larger for women in same-sex couples than for women in different-sex couples.


[^0]
## CONCLUSIONS

Overall, results show that obstacles to parenthood are prevalent among women in both different-sex and same-sex couples, but appear particularly high and persistent for the latter.

## CONTRIBUTION

We are the first to quantify differences in the extent to which parenthood desires are met between women in same-sex and different-sex couples in Spain, using representative data.

## 1. Introduction

The possibility of becoming a parent for individuals in same-sex couples has changed considerably over time in many countries across the globe. Among older cohorts, most same-sex-parent families were formed after childbearing within a previous different-sex relationship, but this route appears to have become less common (Andersson et al. 2006; Gates 2012). Alternative routes to parenthood have become more available, but the social, economic, and legal obstacles to following pathways such as adoption, assisted reproduction, and surrogacy can be high. Overall, this might imply that the share of samesex couples with children has declined over time (Gates 2015), despite new pathways becoming more available (Rozental and Malmquist 2015). Even though childbearing within same-sex marriages has increased considerably over time for Swedish women (Kolk and Andersson 2020), recent evidence from the United Kingdom indeed indicates that parenthood has declined across cohorts of LGB individuals (Ophir, Boertien, and Vidal 2023).

These results could indicate high levels of unmet needs if parenthood desires are high among individuals in same-sex couples. A small but growing body of research, often from the discipline of family psychology, has investigated parenthood desires among the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) population. These studies show, for a variety of high-income countries, that most childless gay and lesbian persons would like to have children, but that this share is somewhat lower than among childless heterosexual and bisexual persons (Hank and Wetzel 2018; Riskind and Patterson 2010; Romeu et al. 2015; Tate, Patterson, and Levy 2019). This indicates that low levels of parenthood among individuals in same-sex couples partly reflect different preferences, but are also likely to indicate high levels of unmet desires to become a parent.

In this paper we connect demographic research with research on parenthood desires and aim to quantify the level of unmet parenthood desires among women in same-sex couples in Spain. Spain can be considered a relatively favorable context for the LGBTQ
population, with relatively positive attitudes and an early adoption of laws supporting LGBTQ rights (Imaz 2017; Smietana 2011). For instance, Spain was one of the first countries to lift restrictions on adoption and explicitly grant access to assisted reproduction for same-sex couples (in 2005 and 2006, respectively). This relatively favorable context provides an interesting test case to see what observed and desired parenthood, and the gap between desires and outcomes, look like when attitudes and laws are more favorable than in previously studied contexts, such as Italy or the United States (Baiocco and Laghi 2013; Riskind and Tornello 2017; Scandurra et al. 2019). We would expect smaller differences in the gap between parenthood and desires across couple types in Spain compared to countries where reforms have been more recent or are still absent. That said, obstacles to parenthood are also present in Spain, and we therefore still expect considerable levels of unmet parenthood desires among women in same-sex couples in Spain. For instance, until recently access to public provision of In-Vitro Fertilization (IVF) was still highly unequal (i.e., between 2013 and 2021 a diagnosis of infertility was needed to qualify for access through the public healthcare system in many regions of Spain).

To structure our paper and analysis we ask two major questions: What are the routes into parenthood for women in same-sex couples in Spain and is the gap between observed and desired parenthood greater among women in same-sex couples than among women in different-sex couples? We use data from the 2018 Spanish fertility survey. Major strengths of this data include a sample of women between ages 18-55 with information on both observed and desired fertility (the subsample of men interviewed was small and therefore could not be included in our paper). A usual weakness of questions about desired fertility is that they can be influenced by having experienced obstacles to parenthood. This complicates their interpretation as preferences. We are therefore likely to underestimate levels of unmet parenthood desires as individuals adjust to obstacles and their personal situation. However, we believe that considering our results as lower-bound estimates of the gap between desire and behavior will provide insightful answers to our research questions.

## 2. Pathways to parenthood among individuals in same-sex couples

Theoretical frameworks of fertility outcomes often rely on considerations that are not easily translated to the case of same-sex parents. For instance, frameworks that explain the emergence of new fertility behaviors based on cost and benefit analyses (Kohler, Billari, and Ortega 2002; Lesthaeghe and Vanderhoeft 2001) are not easily applied because the formation of same-sex-parent families is not always the result of a single event. Many same-sex-parent families are formed after childbearing within a previous
different-sex union (Gates 2012). An analysis of how the parenthood desires and behaviors of individuals in same-sex couples differ from those of individuals in differentsex relationships should therefore consider the costs and benefits related to different routes to parenthood.

When it comes to parenthood, people attracted to someone of the same sex have four options, each with different costs and benefits: remaining childless, having a child outside a relationship, having a child within a different-sex relationship, and having a child within a same-sex relationship. In the rest of this section we discuss the costs and benefits related to these different pathways and how they affect levels of parenthood. Subsequently, we discuss how the parenthood desires of individuals in same-sex couples might vary across contexts.

Early studies on parenthood among same-sex couples observe that many same-sexparent families are formed after childbearing within a previous different-sex relationship (Andersson et al. 2006; Gates 2012). Childbearing within a different-sex relationship remains available, and pressures to form a different-sex family are likely still in place (Schacher, Auerbach, and Silverstein 2005), but studies of trends suggest that in the United States this route into parenthood has become less common among parents in samesex couples (Gates 2015). Over time, alternative routes to parenthood have become more available, including assisted reproduction techniques (ART) and, depending on the context, surrogacy and adoption (Moore and Stambolis-Ruhstorfer 2013; Rozental and Malmquist 2015). These developments have made it possible to transition into parenthood within the context of a same-sex relationship. The benefits of these routes into parenthood are higher for individuals who are attracted to people of the same sex, while the availability of such routes also increases options for those attracted to persons of any sex. Hence, the possibility to have children within same-sex relationships should, over time, make parenthood more attractive and lead to higher levels of desired and observed parenthood among individuals attracted to people of the same sex.

However, evidence regarding changes over time in the prevalence of parenthood varies. Kolk and Andersson (2020) find that childbearing within same-sex marriages has increased considerably for Swedish women, which likely reflects expanded options. At the same time, Gates (2015) finds that the share of same-sex couples living with children has declined in the United States. Ophir, Boertien, and Vidal (2023) find that parenthood has decreased for men and women identifying as lesbian, gay, or bisexual across cohorts in the United Kingdom.

There are several potential reasons for the emerging decline in parenthood in samesex couples. Declining pressure to have children within a different-sex relationship (Schacher, Auerbach, and Silverstein 2005) may have reduced the costs of remaining childless. Another possibility is that the benefits of remaining childless have increased over time. The benefits of remaining childless might be lower in contexts where same-
sex relationships are highly stigmatized than in a context where they are socially acceptable. The increasing legitimization of same-sex unions (Rosenfeld 2017; Trandafir 2015) might therefore have made childbearing within a different-sex union relatively less attractive than remaining childless. As a consequence, the amount of same-sex-parent families formed after the dissolution of a previous different-sex union has likely declined over time.

The extent to which the decreasing importance of childbearing within previous different-sex unions is compensated for by the emergence of new routes to parenthood depends on how available these routes are within a given context. In this regard, assisted reproduction, adoption, and surrogacy require considerable economic resources and planning (Park, Schmitz, and Slauson-Blevins 2020). In addition, eligibility for subsidies or public access to IVF treatments is often established based on heteronormative requirements such as a diagnosis of infertility (Rozental and Malmquist 2015), rather than on indicators of unmet need. The high costs of parenthood within same-sex unions therefore limit its accessibility to selected and strongly socially stratified sections of the population. Due to these obstacles, it is likely that the decline in same-sex-parent families formed after the dissolution of previous different-sex relationships has been greater than the increase in same-sex-parent families formed after assisted reproduction, adoption, or surrogacy. These declines can be particularly visible among men, who often have to rely on the less accessible routes of adoption or surrogacy.

Hence, to study observed levels of parenthood among individuals in same-sex couples within a given context it is necessary to consider the extent to which people are still pressured to have children within different-sex relationships, the extent to which same-sex relationships are accepted and available, and the availability of parenthood in same-sex relationships. Due to the high costs related to assisted reproduction, adoption, and surrogacy, it is likely that levels of parenthood are lower in same-sex couples than different-sex couples across contexts. What will differ across contexts is the size of this difference, which, as explained above, is likely to depend on both the prevalence of samesex relationships and the costs of routes to parenthood that can be followed in these samesex relationships.

### 2.1 Parenthood desires among individuals in same-sex couples

The different costs and benefits of becoming a parent are likely to be reflected in the parenthood desires of individuals in same-sex couples. In principle, the desires of heterosexuals and non-heterosexuals to become a parent might cease to differ if they could be fulfilled equally in different-sex and same-sex relationships. This is a possible
future scenario for women if assisted reproduction becomes widely available at low cost, but less so for men who have to rely on less available options like adoption or surrogacy.

In line with these expectations, studies on parenting intentions and desires have documented that most gay and lesbian persons would like to have children, but that this share is somewhat lower than among heterosexuals and bisexuals across a variety of countries (Riskind and Patterson 2010; Romeu et al. 2015; Tate, Patterson, and Levy 2019). These studies have also found that the gap between desired and expected parenthood is greater for gay men and lesbian women than for heterosexual men and women (Riskind and Tornello 2017).

The extent to which parenthood desires are lower among non-heterosexual people will also relate to the acceptance of same-sex-parent families. Given that stigmatization of and discrimination against LGBTQ people are still prevalent in today's societies, returns to same-sex parenthood could remain lower. Baiocco and Laghi (2013) show how childless gay and lesbian individuals expect less enrichment and social support if they become parents. Similarly, Hank and Wetzel (2018) show that individuals who have had a same-sex partner expect more strain and limited freedom after becoming a parent (but the results become insignificant after controlling for sociodemographic traits). Scandurra and colleagues (2019) show more directly that experiencing minority stress and discrimination are related to lower parenthood intentions among gay men and lesbian women in Italy. If parenthood desires are related to discrimination and stigma they can be expected to vary across contexts (Hank and Wetzel 2018). Costa and Bidell (2017) indeed show that parenting desires among LGB individuals are higher in favorable policy environments in Portugal (Costa and Bidell 2017).

In short, the desire to become a parent among individuals in same-sex couples is likely to be highest when assisted reproduction, adoption, and/or surrogacy are widely available and the stigmatization of and discrimination against same-sex-parent families are low. In this sense, the gap between desired and obtained levels of parenthood could be greatest where same-sex parenthood is relatively attractive (e.g., parenthood within same-sex couples is available and socially accepted) but costs to access these routes are high (e.g., public access or subsidies for assisted reproduction are unavailable). In the next section we discuss, in the light of these considerations, observed and desired fertility of individuals in same-sex couples in the Spanish context.

### 2.2 Same-sex couples and parenthood in Spain

During the early 2000s, LGBTQ rights related to family formation in Spain advanced dramatically. The process experienced in Spain was similar to that of other European countries, but the speed at which changes occurred in Spain was particularly high (Mello
2007). Until the mid-1970s, Spain was under a dictatorship that was heavily rooted in nationalistic Catholicism. LGBTQ individuals were persecuted and a heteronormative definition of family was imposed. By the start of the 21st century, major laws had been introduced to protect the rights of LGBTQ people. Spain was the third country in the world to legalize same-sex marriage (2005) and the first to grant the possibility of adoption to same-sex couples (Imaz 2017). In addition, surveys show it to be one of the countries with the most favorable public opinion regarding same-sex families (Smietana 2011).

Adoption has been available to single individuals (and different-sex couples) in Spain since 1987, but not to same-sex couples. Between 2000 and 2005 some regions (Autonomous Communities) in Spain introduced separate legislation allowing same-sex couples to adopt, while other regions only allowed same-sex couples to become foster parents. In 2005 the Same-Sex or Equal Marriage Act ${ }^{4}$ was enacted, which enables married same-sex couples to adopt in all of Spain. This includes the right to co-adopt a spouse's child(ren) and to jointly adopt a child (Sánchez Molina 2022). Some Autonomous Communities offer couples the possibility to register their union, thereby accessing adoption without needing to get married (Donoso 2013). It should be noted that despite the legal possibility, not many couples jointly adopt, because few children are available for adoption in Spain and other countries might not allow adoption by samesex couples (Imaz 2017). In addition, adoption requires passing suitability tests, which individuals in same-sex couples have mentioned as an important obstacle (Sánchez Molina 2022).

Assisted reproduction has been available to single individuals in Spain since 1988, but, at the time, not many women in same-sex couples followed this path as few were aware of the possibility or had the resources to do so (Imaz 2017). The 2006 Assisted Human Reproduction Act ${ }^{5}$ explicitly states that women can access artificial insemination and in vitro fertilization (IVF) regardless of their sexual orientation. The law stipulates the anonymity of the gamete donor, and it is only possible to know the identity of the donor in exceptional cases. The only exception lies in the use of the ROPA technique (Spanish acronym for Reception of Oocytes from Partner), which also became legal in 2006 (and in 2008 is explicitly mentioned as available to women in same-sex couples; Donoso 2013). This method involves implanting in the uterus of a woman an embryo obtained through IVF of an egg obtained from her partner and inseminated with a sperm donor. This option is offered in private fertility clinics, but not in the public system.

[^1]After assisted reproduction, male partners are automatically recognized as a parent if they are married to the person who gives birth, while female partners have to go through a separate procedure, and, until 2007, had to adopt the child to be recognized as a parent (Donoso 2013). In 2023 a law was introduced that enables unmarried partners to be recognized as parents in assisted reproduction procedures.

Assisted reproduction is currently available to single people and women in samesex couples without payment through the public healthcare system. However, these two groups do not escape the general trend of socioeconomic differences in the access to assisted reproduction that is found in Spain and many other European countries (Borisova 2023; Seiz, Eremenko, and Salazar 2023). Furthermore, between 2013 and 2021, when the Spanish government required an infertility diagnosis, many LGBTQ people were denied publicly funded access to IVF. During that period some Autonomous Communities introduced separate legislation to continue providing public access to single people and women in same-sex couples (Álvarez-Bernardo and Romero-López 2017). Other obstacles to accessing assisted reproduction within the public system include long waiting lists, age limits, coverage of a limited number of treatments, discriminatory experiences, and other obstacles encountered by same-sex couples in a system designed for different-sex couples (Álvarez-Bernardo and Romero-López 2017; Falguera Ríos 2018). These obstacles lead many same-sex couples to choose private clinics where treatments cost several thousands of euros. Nonetheless, the decreasing cost of reproductive technologies and the expansion of fertility clinics are major factors that may have increased parenthood among women in same-sex couples who opt for motherhood.

Finally, surrogacy is banned in Spain, and not included in the 2006 Act. This prohibition extends to all cases, including the possibility of an embryo formed with an egg donated by a woman who cannot carry a baby but wishes to become a mother. Together with the restricted possibility of adoption, this means that in Spain the possibility for men in same-sex couples to become parents is very limited, whereas the access to assisted reproduction provides a more feasible option for women in same-sex couples.

Besides the particular options and restrictions, same-sex couples who wish to become parents in Spain encounter a generally adverse context. Together with Italy, Spain has the lowest fertility rate in Europe ( 1.3 children per woman in 2020) and the highest mean age at entry into motherhood (31 years old). Nonetheless, on average, desired fertility is around 2 children (Adsera 2006; Esteve et al. 2021). Hence, there is a considerable 'fertility gap' between desired and achieved fertility (Esping-Andersen et al. 2013).

At the micro-level, the Spanish fertility gap indicates that in both their private and public lives women encounter several conditions that lead to delayed childbearing, and therefore many eventually forgo parenthood or a second birth transition (Brodmann,

Esping-Andersen, and Güell 2007; Esteve et al. 2021). These include high levels of job insecurity (Lozano and Renteria, 2019), large motherhood penalties (Budig and Hodges 2010; de Quinto, Hospido, and Sanz 2021), a persistently unequal division of unpaid work (Garcia Roman and Cortina 2016; Sevilla-Sanz 2010), limited public childcare services (Baizan 2009; Suárez 2013), long working hours (Gracia and Kalmijn 2016; Gutiérrez-Domènech 2010), and few possibilities provided by companies to combine work and family life (Adserà and Lozano 2021).

Individuals in same-sex couples in Spain have higher levels of education than individuals in different-sex couples (Cortina and Cabré 2010; Cortina 2016), and international studies show that the division of labor is more equal within same-sex couples (Moore and Stambolis-Ruhstorfer 2013). These factors might help same-sex couples fulfill their parenthood desires. At the same time, LGBTQ people encounter discrimination in the labor market and women in same-sex couples have lower levels of household income than different-sex couples because of the gender pay gap (González and Sönmez 2022), which could form additional obstacles to fulfilling parenthood desires.

In short, the Spanish context provides an interesting case where attitudes are favorable and the possibilities for women in same-sex couples to have children have expanded considerably. The pressure on different-sex couples to have children has likely declined, which could make both remaining childless and having children within a samesex relationship relatively attractive. Men in same-sex couples might more often opt for remaining childless, whereas the extent to which women in same-sex couples desire and have children is likely to depend on how important the remaining social and economic obstacles to assisted reproduction still are in the Spanish context.

## 3. Data and method

We use the 2018 Spanish fertility survey, which contains data on a representative sample of 14,556 women. We selected all women who were in a 'sentimental' relationship ${ }^{6}$ at the time of interview. This relationship can be either coresidential or non-residential. Out of 10,617 women in a sentimental relationship, 139 were in a same-sex couple (determined based on the reported 'sex' of the partner). ${ }^{7}$ 2,619 men were interviewed, of which 26 were in a same-sex couple. This small sample size forces us to focus on women

[^2]in our analysis. We are not able to look at LGBTQ individuals more generally due to a lack of information on sexual orientation. This means that one important factor affecting the chances of becoming a parent, having a partner, cannot be studied in this paper.

Observed levels of parenthood are determined based on the total number of coresident and non-resident children of both the respondent and partner (including adopted and biological children of either partner). To determine the respondent's total number of children we exclude children of the partner who have not lived with the respondent for more than 3 months.

For all persons with children, we document the pathway to parenthood by focusing on the first time the respondent became a parent. This moment is coded as the year of birth for biological children and based on the year of first coresidence for adopted children and partners' children. Pathways to parenthood are categorized based on respondents' reports on whether their children are adopted/foster children, biological children, or children of their partner. We subdivide these groups of children further by whether they were born before or during the current relationship (based on a question asking what year the current relationship started) and whether any fertility treatment was sought by the respondent or partner before the birth of an own biological child or a partner's child (we assume that if a first child was born after the first time the respondent or their partner received fertility treatment they were conceived through that method).

To measure desired levels of parenthood we use the answers to the set of questions: 'Would you like to have or would you have liked to have children?' and if the answer is yes, 'How many?' For individuals who have children the questions are 'Does the number of children you have coincide with the number you would have liked or like to have?' and if the answer is no, 'How many children would you like to have or have liked to have?' Based on these questions we construct a measure of whether the individual would like to be a parent (parents who indicated they would have liked to have had zero children are coded as not wanting to be a parent) and a measure of the total number of desired children. Both measures are used together with observed levels of parenthood (i.e., the individual has at least one child) and number of children to construct measures of the difference between desired and observed parenthood (i.e., desired minus observed number of children). ${ }^{8}$ We present analysis based on the number of children in the main text and present the results on parenthood (which are very similar) in the Appendix.

In our analysis we use a set of covariates to look at the possible role of observed compositional differences between women in different-sex and same-sex relationships: age (in 5-year intervals), education (some secondary education or less, secondary completed, tertiary completed), area (rural, urban, intermediate), region (northwest, northeast, center, south, east, Madrid, Canary Islands), being foreign-born or not,

[^3]partner's age (in 5-year intervals, plus a missing category), having a foreign-born partner or not, and partner's education. Table 1 displays the descriptive statistics of the sample based on these covariates. Most noticeably, women in same-sex couples are younger and less likely to coreside with their partners than women in different-sex couples. Other differences include women in same-sex couples being more likely to live in urban areas and less likely to be foreign-born than women in different-sex couples in Spain.

Table 1: $\quad$ Descriptive statistics of samples used

|  | Women in same-sex <br> couple | Women in different-sex <br> couple <br> (unmatched) | Women in different- <br> sex couple <br> (matched) |
| :--- | ---: | ---: | ---: |
|  | Average /\% | Average $\%$ | Average / \% |

Note: Sample weights included; Spanish Fertility Survey 2018. Matched column descriptive statistics for unweighted sample when matched on all respondent characteristics, but not partner characteristics (Model 2 of Table 2).

After describing general differences between the two subsamples, we use coarsened exact matching (Iacus, King, and Porro 2012) to make the two groups as comparable as possible. With this method, women in same-sex couples are matched to all women in different-sex couples who are otherwise identical on a set of observable characteristics. This technique avoids results that are driven by, for instance, the very different age
profiles of women in same-sex couples. ${ }^{9}$ Because observations are matched to cases that have the exact same observed characteristics, the number of matches available per case reduces when more characteristics are used to create matches. We therefore create various sets of matches that vary in the number of characteristics they are matched on. We create one set where we match on few characteristics but obtain many matches per case, and one set that is matched on many characteristics but has fewer matches per case.

In a first step, we match observations based on respondents' age. Here we reach the highest number of matches per case (at least 53 per individual in a same-sex couple). In a second step we match on all own characteristics, which is the step where we match on the maximum number of variables without having to drop individuals in a same-sex couple from the analytical sample. Here, we match on age, education, area, region, and foreign-born status. In this step, all 139 women in a same-sex couple have at least two matches, $83 \%$ of cases have at least 10 matches, and the median number of matches is 30 (a total of 4,339 women in a different-sex couple are matched). ${ }^{10}$ Note that the method relies on a weighting procedure to account for variation in the number of matches across cases. In a third step we also match on partner's age. This led to dropping one woman in a same-sex couple from the analysis who no longer had a matching woman in a differentsex couple. In a last step we also match on relationship status (coresidential or nonresidential) and control for other relationship characteristics, as these might be mediators rather than controls (i.e., partner choice might be a reason why women in same-sex couples have different levels of observed and desired parenthood than women in different-sex couples): whether the partner is foreign-born, partner's education, and whether the relationship started at least two years before the time of interview.

## 4. Results

We start our results section by showing that women in same-sex couples have fewer children than women in different-sex couples in Spain. Figure 1 shows Kaplan-Meier estimates of transitions to parenthood based on retrospective information, with the clock starting at age $15 .{ }^{11}$ According to Figure 1, only $13 \%$ of women in a different-sex couple

[^4]remained childless by their 40s compared to $50 \%$ of women in a same-sex couple. These shares of childlessness are the result of different fertility trajectories, in terms of both timing and routes to parenthood. Women in same-sex couples have fewer children and they have them much later. We cannot observe a clear postponement process across cohorts for women in same-sex couples, whereas we do so for women in different-sex couples, with the first child arriving later for the younger cohort (born after 1974) than for the older cohort (born between 1960-1974).

Figure 1: $\quad$ Share childless by birth cohort and couple type


Note: Kaplan-Meier estimates based on retrospective histories of when first child was born or respondent first lived with partner's child. Spanish Fertility Survey 2018.

Women in same-sex couples also have more diverse routes to parenthood. Figure 2 displays differences in observed rates of parenthood between women in same-sex and different-sex couples according to age at time of interview (i.e., birth cohort) and route to parenthood for the first child they ever had. Whereas the great majority of women in a different-sex couple had a biological child with the current partner without using fertility treatment, women in a same-sex couples enter parenthood through a diversity of routes. The most common are fertility treatment and a natural conception with a previous or current partner. The definition of a natural conception with a current partner is unclear,
but this could suggest having used an informal donation instead of a formal donation via a fertility treatment.

Figure 2: Percentage of mothers by age, pathway to parenthood, and couple type


Note: Spanish Fertility Survey 2018; Age Groups = Age at time of interview. Route to parenthood is based on the situation of the first child the person ever had: was the child born before the start of the current relationship (yes/no), was assisted reproduction used by the respondent or partner before the first child was born (yes/no), was the child adopted, or a biological child of the respondent or partner?

Interestingly, variation in routes differs substantially across age groups. We focus our discussion here on the age groups 39-45 and 46-55 due to small sample sizes (less than 10 individuals in a same-sex couple were a parent in each of the younger groups). The oldest group of women in same-sex couples, aged 46-55 at the time of the survey, often became a parent through coresidence with a stepchild, and none became a mother after fertility treatment. For this cohort, ART became available to single people when they were in their late teens or early twenties, but was only available to (married) samesex couples when they were in their thirties or early forties. The same holds for access to ROPA techniques. Among women aged 39-44, half of mothers in a same-sex couple became a parent after a fertility treatment. For this cohort, expanded ART access (i.e., as a couple/ROPA) was obtained when they still had time to access it (ages 27-33).

The changes across these two cohorts indeed suggest that alternative routes to parenthood are gaining ground at the expense of forming same-sex-parent families after the dissolution of a previous (probably different-sex) relationship. In addition, it seems that fertility treatments were only accessed in larger numbers after legal changes in the mid-2000s which made it easier to access ART as a couple and to use the ROPA technique. It should be noted, however, that cell sizes are also very small for these age groups and that future research using larger datasets should confirm these results. ${ }^{12}$

Note that we also replicated Figure 2 restricted to parenthood transitions that took place before age 33. Thus, we are able to compare the three oldest age groups at the same age. These numbers, shown in Appendix A-1, indicate that only one individual in a samesex couple had a child after fertility treatment before age 33 (in 2014). At the same time, the greater importance of parenthood transitions within previous relationships for individuals in same-sex couples from the age group 46-55 persists.

Figure 3 puts the number of children at the time of interview in relation to the desired number of children. Whereas the desired number of children increases across age groups for women in different-sex couples, it decreases across age groups for women in samesex couples. These different age patterns most probably express age and cohort effects operating in opposite directions for both groups of women. On the different-sex side, fertility desires are quite stable across age groups and possibly increase slightly with age (or decrease slightly across cohorts). On the same-sex side, levels of desired fertility decline across age groups, and are consistently lower for women in same-sex couples compared to women in different-sex couples, with the exception of the youngest group.

The declining pattern with age can be understood as an age effect, where desires adapt as women encounter obstacles to becoming a parent, or as a cohort effect where younger cohorts adapt their desires to increasing possibilities of becoming a parent within a same-sex couple. Note that the low level of desired number of children among the oldest age group might relate to the limited access to ART this cohort had during reproductive ages. Other age groups did have more possibilities to access assisted reproduction, which could explain their relatively higher parenthood desires.

[^5]Figure 3: Achieved and desired number of children by women in same-sex and different-sex couples in Spain, 2018


Note: Spanish Fertility Survey 2018; Age Groups = Age at time of interview. Y-axis indicates average number of achieved/desired number of children.

One of the main interests of this article is the gap between observed and desired parenthood. We aim to see if this gap is greater among women in same-sex couples than among women in different-sex couples, as a result of the higher obstacles faced by the latter. Figure 3 already shows that the gap between desired and achieved number of children is indeed greater among women in same-sex couples across all age groups. For instance, among women aged $46-55$ the gap is 0.73 children for those in same-sex couples, compared to 0.31 children among those in different-sex couples.

Table 2 tests more formally whether the gap between observed and desired number of children varies across groups using matched samples. The columns of Table 2 represent analysis performed for three different dependent variables: (1) observed number of children, (2) desired number of children, (3) the difference between these two variables. Model 1 uses samples that are matched only on the age of the respondent and shows how women in same-sex couples have 0.5 children less than women in differentsex couples. The number of desired children is also 0.3 points lower among women in same-sex couples. Most importantly, the difference between desired and observed number of children is greater than for women in a different-sex couple. On average, women in different-sex couples have 1.04 children less than desired, whereas women in same-sex couples have 1.24 children less than desired.

Additional analysis of the congruence between observed and desired parenthood (see Table A-2) shows that parenthood status is congruent with parenthood desires for $66 \%$ of women in a different-sex couple, but for $53 \%$ of women in a same-sex couple. $0.6 \%$ of women in a different-sex couple who report an incongruency between observed and desired parenthood are parents; in other words, a very small share of women are parents but ideally would not have been. This situation does not apply to any of the women in same-sex couples. Hence, the observed gaps are produced by unmet desires rather than undesired parenthood.

The higher gap among women in a same-sex couple observed in model 1 of Table 2 barely changes when matching on other characteristics of the respondent in model 2 , and only declines slightly when using a sample matched on the age of the respondent and of the partner in model 3. This allows us to exclude observable compositional differences between women in different- and same-sex couples as the main explanation.

## Table 2: Three LPM regressions explaining various outcome variables on matched sample

|  | Number of children |  | Desired number of children |  | Desired-observed number of children |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Coef. | 95\% Cl | Coef. | 95\% Cl | Coef. | 95\% CI |
| Model 1: Only matched on own age |  |  |  |  |  |  |
| In same-sex couple | -0.47 | [ $-0.65,-0.30]$ | -0.27 | [-0.44, -0.10] | 0.20 | [0.01, 0.38] |
| Constant | 0.96 | [0.94, 0.98] | 1.99 | [1.97, 2.01] | 1.04 | [1.02, 1.06] |
| Model 2: Only matched on own characteristics |  |  |  |  |  |  |
| In same-sex couple | -0.52 | [ $-0.71,-0.33]$ | -0.32 | [-0.49, -0.14] | 0.20 | [0.01, 0.39] |
| Constant | 1.01 | [0.98, 1.04] | 2.03 | [2.01, 2.07] | 1.04 | [1.01, 1.07] |
| Model 3: Matched on own and partner's age + controls for own characteristics (not shown) |  |  |  |  |  |  |
| In same-sex couple | -0.43 | [-0.60, -0.25] | -0.26 | [ $-0.44,-0.09]$ | 0.16 | [-0.03, 0.34] |
| Constant | 2.08 | [1.94, 2.23] | 2.24 | [2.10, 2.38] | 0.20 | [0.04, 0.35] |
| Model 4: Matched on own, partner's age and relationship type + controls for own and partner characteristics |  |  |  |  |  |  |
| In same-sex couple | -0.31 | [-0.48, -0.14] | -0.20 | [-0.37, -0.02] | 0.10 | [-0.09, 0.29] |
| Respondent foreign-born | -0.35 | [-0.42, -0.28] | -0.16 | [-0.23, -0.08] | 0.17 | [0.09, 0.25] |
| Partner foreign-born | -0.30 | [ $-0.38,-0.23$ ] | -0.37 | [-0.45, -0.29] | -0.06 | [-0.14, 0.02] |
| Respondent middle-educated | -0.42 | [-0.50, -0.35] | -0.13 | [-0.21, -0.06] | 0.30 | [0.22, 0.38] |
| Respondent higher-educated (Ref. low) | -0.66 | [ $-0.74,-0.58$ ] | -0.18 | [-0.26, -0.10] | 0.49 | [0.41, 0.58] |
| Partner middle-educated | -0.20 | [-0.26, -0.13] | 0.02 | [-0.05, 0.09] | 0.22 | [0.15, 0.29] |
| Partner higher-educated (Ref. low) | -0.30 | [ $-0.37,-0.23$ ] | 0.02 | [-0.05, 0.09] | 0.31 | [0.24, 0.39] |
| Relationship > 2 years | 0.67 | [0.61, 0.73] | 0.29 | [0.22, 0.35] | -0.39 | [-0.45, -0.32] |
| Urban area (Ref. rural) | -0.01 | [-0.07, 0.05] | 0.14 | [0.08, 0.20] | 0.14 | [0.08, 0.21] |
| Intermediate area (Ref. rural) | -0.02 | [-0.07, 0.05] | 0.14 | [0.07, 0.20] | 0.14 | [0.07, 0.20] |
| Region: Northwest | 0.00 | [-0.11, 0.11] | -0.01 | [-0.12, 0.11] | -0.01 | [-0.13, 0.12] |
| Region: Northeast | 0.18 | [0.07, 0.29] | 0.39 | [0.28, 0.51] | 0.20 | [0.08, 0.32] |
| Region: Madrid | 0.04 | [-0.08, 0.15] | 0.24 | [0.12, 0.36] | 0.21 | [0.08, 0.34] |
| Region: Center | 0.04 | [-0.08, 0.15] | 0.16 | [0.04, 0.28] | 0.11 | [-0.02, 0.23] |
| Region: East | 0.07 | [-0.04, 0.18] | 0.14 | [0.02, 0.25] | 0.07 | [-0.05, 0.19] |
| Region: South (Ref. Canary Islands) | 0.11 | [0.01, 0.22] | 0.20 | [0.08, 0.31] | 0.07 | [-0.05, 0.19] |
| Constant | 1.52 | [1.36, 1.68] | 2.01 | [1.85, 2.17] | 0.52 | [0.35, 0.70] |

Note: *** $\mathrm{p}<0.001$; ** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05$; $\dagger \mathrm{p}<0.10$. $\mathrm{N}=4,642$ women, of which 139 in same-sex couple. One woman in a same-sex couple no longer has a match once matching on partner's age. Own characteristics used for matching in Model 1: education, age, foreign-born, region, urban/rural status. Spanish Fertility Survey 2018. $\mathrm{CI}=95 \%$ Confidence interval.

One explanation of differences in the parenthood gap could be obstacles to finding a partner encountered by women in same-sex couples. In model 4, to form matches we therefore also take into consideration the type of relationship (non-residential versus residential) and we include partner characteristics as control variables (as matching on all characteristics would lead to the exclusion of part of the cases). Once these partner characteristics are accounted for, we see that the gap between observed and desired number of children declines by almost half. This is primarily driven by matching on relationship status (not shown), suggesting that differences in relationship characteristics can partly explain the higher levels of unmet need among women in same-sex couples. In addition, we find that foreign-born women and women with middle or higher education (or whose partners have middle or higher education) report greater gaps between observed and desired number of children. The gap between desired and observed number of children is smaller for women whose relationship has lasted more than two years.

To conclude our results section, we report on robustness checks that are available in the Online Appendix. We replicated Table 2 using (a) alternative outcome measures based on the congruence between observed and desired parenthood (i.e., having at least one child; See Table A-2); (b) excluding same-sex couples that were possibly miscoded (couples married before 2001 and those with hostile attitudes towards LGBTQ rights), a common issue in research on same-sex couples (Gates 2015; see Tables A-3 and A-4); (c) defining the sample based on people who ever had a same-sex relationship (compared to women who only had different-sex relationships) regardless of current union status (see Tables A-5 and A-6). In all cases the results did not differ substantially from the analysis presented in the main text.

## 5. Discussion

Previous research (Badgett, Carpenter, and Sansone 2021; Baumle and Compton 2011; Gates 2012; Kolk and Andersson 2020) has shown that levels of parenthood are particularly low among (parts of) the LGBTQ population. Does this reflect differences in preferences or obstacles to parenthood? We aimed to answer this question with representative data from Spain, a relatively favorable context for same-sex couples to become parents. We used data that was limited in several aspects, such as a sample based on women in couples only and a small sample of women in same-sex couples. Nonetheless, given the lack of available data and quantitative research on the family lives of LGBTQ people, we think that some important observations were made that help understand the importance of obstacles to and preferences for parenthood.

The first observation to underline is that despite the relatively favorable context studied, women in same-sex couples are less likely to be parents and more likely to have
unmet parenthood desires than women in different-sex couples. Even though fertility desires are often endogenous to the obstacles encountered, we think these results provide evidence that women in same-sex couples encounter substantial obstacles to parenthood, even in Spain. For two reasons, we think that we are even underestimating the level of unmet desires.

First, expressed fertility desires are likely to be adjusted towards the realities that people encounter in their lives. Given the complications LGBTQ people face to become parents (Moore and Stambolis-Ruhstorfer 2013; Rozental and Malmquist 2015), our results could be regarded as lower bound estimates of the gap between desires and observed levels of parenthood. In other words, if obstacles to parenthood were lower, the desire to become a parent among women in same-sex couples would likely be higher.

Second, we found coresidence status to be the only observable characteristic that could explain part of the larger gap between desires and observed levels of parenthood. Women in same-sex couples are less likely to live with their partner and this is a strong predictor of having children. This observation draws attention to the limited nature of our sample, which excluded single individuals. LGB individuals are less likely to be in relationships than heterosexual individuals (Ophir, Boertien, and Vidal 2023), and thus if we had measures of sexual orientation that allowed us to include single individuals we would likely encounter greater differences between parenthood and unmet desires. More generally, this observation also draws attention to how the characteristics of LGBTQ relationships are more diverse than heteronormative understanding of relationships (Van Eeden-Moorefield et al. 2011). On the one hand, this can explain why women in samesex couples are less likely to be in a coresidential relationship in Spain. On the other hand, it shows the need to collect data in ways that go beyond two-parent coresidential relationships.

In short, our limited data is likely to have underestimated the gap between desires and observed levels of parenthood among LGBTQ women. It therefore seems that, even in the relatively favorable context of Spain, women in same-sex couples experience high levels of unmet desire to become a parent. This level is even higher than that observed among women in different-sex couples, who also experience high levels of incongruency between desires and observed behaviors in Spain (i.e., $34 \%$ of the sample at the time of interview). Arguably, it is unsurprising that women in same-sex couples experience high levels of unmet desires, given the high costs related to alternative routes to parenthood and the heteronormative criteria used to determine public access to assisted reproduction during important parts of our observation period (such criteria were in place in Spain between 2013 and 2021). It would be interesting to see how the uptake of assisted reproduction changed after the criterium of an infertility diagnosis to qualify for public access was lifted in Spain in 2021.

A second interesting observation can be derived from the levels of and routes to parenthood observed among our sample of women in same-sex couples. We observed a modest uptake of assisted reproduction among younger cohorts of women in same-sex couples. Notably, we observed that assisted reproduction became visible as a route to parenthood only for the cohorts where ART was accessible for same-sex couples (and no longer only for single people) and where the ROPA technique became available during reproductive ages.

The uptake in ART use came at the expense of biological children conceived within previous relationships, which was a particularly common route among older cohorts. These results are based on very small cell sizes but are congruent with previous research which suggests that the formation of same-sex-parent families after childbearing within previous different-sex relationships is becoming relatively less common as a route to parenthood (Gates 2015). We also observed a relatively high share of women in samesex couples reporting that they had a biological child with their current partner. Given the availability of ROPA techniques, where fertilized eggs of one woman are inserted in the uterus of another woman, this is a feasible route to parenthood. However, most of these respondents did not indicate having used assisted reproduction techniques. Hence, this could be the result of issues related to the measure of whether couples used assisted reproduction (e.g., people might have omitted that information), the use of informal donors, or couples consisting of transgender people.

How do our estimates of the prevalence of parenthood compare to other studies? We observed that at the time of interview around $23 \%$ of women in same-sex couples had a child and that almost half ended up having children by age 40, a share that seems to have changed little across two cohorts (born before and after 1975). Using a larger representative data source for Spain, Cortina and Festy (2020) find that $18 \%$ of women in same-sex couples live with children; this share is possibly somewhat lower due to the absence of age restrictions (i.e., our sample only included women up to age 55). Comparable estimates for other contexts are rare as they are based on same-sex marriages only (Kolk and Andersson 2020) or on sexual identity (Badgett, Carpenter, and Sansone 2021; Gates 2015; Ophir, Boertien, and Vidal 2023). Black and others (2000) estimate that around $22 \%$ of partnered lesbian women in the United States live with a child, an estimate very similar to what we observed for Spain and by Cortina and Festy (2020). However, the estimates of parenthood are higher than emerged from the results of Ophir and colleagues for the United Kingdom. In the United Kingdom, $41 \%$ of women in cohorts born before 1965 who identify as lesbian and $25 \%$ of lesbian women in cohorts born between 1966 and 1979 ever lived with a child before age 40 . This suggests that the relatively favorable context of Spain might have led to relatively high levels of parenting among same-sex couples, but future comparative research should investigate this further.

Previous research that documents the gap between observed and desired levels of parenthood is also hard to compare with our results, as it is based on samples of childless respondents (Baiocco and Laghi 2013; Riskind and Patterson 2010; Riskind and Tornello 2017; Scandurra et al. 2019; Tate, Patterson, and Levy 2019) or on non-representative samples (Baiocco and Laghi 2013; Costa and Bidell 2017; Romeu et al. 2015; Scandurra et al. 2019). Therefore, the results of this article also contribute by providing direct estimates of the gap between desired and observed levels of parenthood among women in same-sex couples.

Describing the pathways into parenthood as well as the desires of a small sample of women in same-sex couples has provided some interesting insights. Levels of parenthood are lower among women in same-sex couples than among women in different-sex couples, even though many women in same-sex couples want to have children. Reflecting this mismatch between observed parenthood and desired parenthood, we observe high levels of unmet desire to become a parent among women in same-sex couples. These results underline the obstacles that LGBTQ persons face to fulfilling goals related to parenthood.

## 6. Acknowledgements

This paper has benefited from comments received at the European Population Conference 2022 in Groningen. This research received funding from the European Research Council, ERC-2020-STG-948557-MINEQ, and the Spanish Ministry of Education, PID2021-124267OB-I00, RYC2019-026510-I, RYC-2021-034487-I, and PID2020-117980GBI00/MICIU/AEI/10.13039/501100011033. DB and ML also acknowledge support from CERCA, Generalitat de Catalunya.

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## Appendix

Figure A-1: Share of sample childless by birth cohort and couple type (ever having been in different-sex / same-sex relationship)


Note: Kaplan-Meier estimates based on retrospective histories of when first child was born or respondent first lived with partner's child. Spanish Fertility Survey 2018.

Table A-1: Level of parenthood by age 33, by route to parenthood

|  | Birth cohort 1980-1984 <br> (age 34-38 at survey) | Birth cohort 1973-1979 <br> (age 39-45 at survey) | Birth cohort 1963-1972 <br> (age 46-55 at survey) |
| :--- | :---: | :---: | :---: |
| No children | .70 | .87 | .57 |
| Biological child with current partner | .22 | .11 | .09 |
| Biological child with previous partner | .02 | .02 | .12 |
| Fertility treatment, current partner | .02 | .00 | .00 |
| Fertility treatment, previous partner | .00 | .00 | .00 |
| Partner had child, current relationship | .00 | .00 | .13 |
| Partner had child, | .05 | .00 | .10 |
| Previous relationship |  | .00 | .00 |

relationship
Note: Only counts transitions to parenthood that took place before age 33 for each birth cohort. Route to parenthood based on first time person became a parent.

Table A-2: Three LPM regressions explaining observed/desired parenthood on matched sample

|  | Whether Parent | Wants to be parent | Congruency <br> Desired/Observed |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SE |  |  |  |

Note. ${ }^{* * *} \mathrm{p}<0.001$; ** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05 ; \dagger \mathrm{p}<0.10$. $\mathrm{N}=4,642$ women out of which 139 in same-sex couple. One woman in a samesex couple no longer has a match once matching on partner's age. Own characteristics used for matching in Model 1: education, age, foreign-born, region, urban/rural status.

Table A-3: Three LPM regressions explaining observed/desired parenthood on matched sample excluding cases possibly miscoded ${ }^{1}$


Note: ${ }^{* * *} \mathrm{p}<0.001$; ** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05 ; \dagger \mathrm{p}<0.10$. $\mathrm{N}=4,642$ women, of which 139 in same-sex couple for model 1. Separate matches created for model 2: $\mathrm{N}=3,796$, of which 121 in same-sex couple. Own characteristics used for matching in Model 1: education, age, foreign-born, region, urban/rural status.
${ }^{1}$ : Excludes women in same-sex couples that married before 2001 or who did not agree with the statement 'It's good if homosexual couples have the same rights as heterosexual couples'.

## Table A-4: Three LPM regressions explaining observed/desired number of children on matched sample excluding cases possibly miscoded ${ }^{1}$

|  | Number of children <br> Coef. |  | SE | Desired number of children <br> Coef. |  | SE |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

Note: ${ }^{* * *} \mathrm{p}<0.001$; ** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05 ; \dagger \mathrm{p}<0.10$. $\mathrm{N}=4,642$ women, of which 139 in same-sex couple for model 1. Separate matches created for model 2: $\mathrm{N}=3,796$, of which 121 in same-sex couple. Own characteristics used for matching in Model 1: education, age, foreign-born, region, urban/rural status.
${ }^{1}$ : Excludes women in same-sex couples that married before 2001 or who did not agree with the statement 'It's good if homosexual couples have the same rights as heterosexual couples'.

# Table A-5: Three LPM regressions explaining observed/desired parenthood on matched sample of individuals ever in a same-sex coresidential relationship (or currently in same-sex non-residential relationship) 



Note: ${ }^{* * *} \mathrm{p}<0.001$; ** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05$; $\dagger \mathrm{p}<0.10$. $\mathrm{N}=4,642$ women out of which 145 in same-sex couple. One woman in a samesex couple does not have a match. Own characteristics used for matching in Model 1: education, age, foreign-born, region, urban/rural status.

# Table A-6: Three LPM regressions explaining observed/desired number of children on matched sample of individuals ever in a same-sex coresidential relationship (or currently in same-sex non-residential relationship) 

|  | Number of children Coef. <br> SE |  | Desired number of children Coef. SE |  | Gap Desired-Observed Coef. SE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model 1: Only matched on own characteristics |  |  |  |  |  |  |
| In same-sex couple | -0.50*** | 0.10 | $-0.31^{* * *}$ | 0.09 | $0.18 \dagger$ | 0.10 |
| Constant | 1.01*** | 0.02 | $2.04 * * *$ | 0.01 | 1.04*** | 0.02 |
| Model 2: Matched on own and partner's age + controls for own characteristics (not shown) |  |  |  |  |  |  |
| In same-sex couple | -0.46*** | 0.09 | -0.25*** | 0.09 | 0.20* | 0.09 |
| Constant | 0.97*** | 0.02 | 2.02*** | 0.01 | 1.06** | 0.01 |
| Model 3: Matched on own, partner's age, and relationship type + controls for own and partner characteristics |  |  |  |  |  |  |
| In same-sex couple | -0.29** | 0.08 | -0.16* | 0.09 | 0.12 | 0.09 |
| Respondent foreign-born | -0.34*** | 0.04 | $-0.16^{* *}$ | 0.04 | 0.16** | 0.04 |
| Partner foreign-born | -0.30*** | 0.04 | -0.36*** | 0.04 | -0.06 | 0.04 |
| Respondent middle-educated | -0.43*** | 0.04 | -0.14** | 0.03 | 0.31*** | 0.04 |
| Respondent higher-educated (Ref. low) | -0.67*** | 0.04 | -0.18*** | 0.04 | 0.50*** | 0.04 |
| Partner middle-educated | -0.20*** | 0.03 | 0.03 | 0.03 | 0.22*** | 0.04 |
| Partner higher-educated (Ref. low) | -0.29*** | 0.03 | 0.02 | 0.04 | 0.31*** | 0.04 |
| In relationship > 2 years | 0.67*** | 0.03 | $0.28 * * *$ | 0.03 | -0.38*** | 0.03 |
| Urban area (Ref. rural) | -0.00 | 0.03 | $0.14 * * *$ | 0.03 | 0.13 ** | 0.03 |
| Intermediate area (Ref. rural) | -0.00 | 0.03 | 0.13*** | 0.03 | 0.13* | 0.03 |
| Region: Northwest | -0.01 | 0.06 | -0.01 | 0.06 | 0.00 | 0.06 |
| Region: Northeast | $0.17{ }^{* *}$ | 0.06 | 0.38*** | 0.06 | 0.20** | 0.06 |
| Region: Madrid | 0.03 | 0.06 | 0.23 *** | 0.06 | 0.20** | 0.07 |
| Region: Center | 0.03 | 0.06 | 0.15** | 0.06 | $0.11 \dagger$ | 0.06 |
| Region: East | 0.06 | 0.06 | 0.14* | 0.06 | 0.08 | 0.06 |
| Region: South (Ref. Canary Islands) | $0.10 \dagger$ | 0.06 | 0.20** | 0.06 | 0.08 | 0.06 |
| Constant | 1.52*** | 0.08 | 2.01*** | 0.08 | 0.52*** | 0.09 |

Note: *** $p<0.001$; ** $p<0.01$; * $p<0.05 ; \dagger p<0.10$. $\mathrm{N}=4,642$ women, of which 145 in same-sex couple. One woman in a same-sex couple does not have a match. Own characteristics used for matching in Model 1: education, age, foreign-born, region, urban/rural status.

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Table A-7: Descriptive statistics of sample before matching

|  | Women in same-sex couple |  | Women in different-sex couple |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Parent | Not parent | Parent | Not parent |
|  | Average / \% | Average / \% | Average / \% | Average / \% |
| Number of children | 1.64 | 0 | 1.84 | 0 |
| Parent of at least 1 child | 1 | 0 | 1 | 0 |
| Desired number of children | 2.32 | 1.54 | 2.24 | 1.61 |
| Wants/wanted to be a parent | 1 | 68.9 | 99.8 | 0.71 |
| Respondent's age | 39.7 | 31.4 | 43.0 | 32.7 |
| Partner's age | 41.9 | 31.8 | 46.2 | 34.9 |
| Respondent foreign-born | 14.7 | 10.0 | 18.4 | 17.0 |
| Partner foreign-born | 18.8 | 5.6 | 16.0 | 12.3 |
| Respondent lower-educated | 8.8 | 8.9 | 16.6 | 6.1 |
| Respondent middle-educated | 31.1 | 36.7 | 35.9 | 30.0 |
| Respondent higher-educated | 60.0 | 54.4 | 47.5 | 63.9 |
| Partner lower-educated | 21.0 | 15.0 | 21.8 | 10.2 |
| Partner middle-educated | 32.4 | 31.1 | 38.9 | 38.5 |
| Partner higher-educated | 46.9 | 54.0 | 39.3 | 51.2 |
| Partner not coresident | 87.4 | 61.6 | 4.9 | 50.1 |
| In relationship more than 2 years | 95.8 | 79.6 | 98.8 | 87.2 |
| Urban area | 58.9 | 61.1 | 51.0 | 57.1 |
| Intermediate area | 33.7 | 29.9 | 35.3 | 30.5 |
| Rural area | 7.3 | 9.0 | 13.6 | 12.4 |
| Region: Northwest | 6.8 | 9.0 | 8.4 | 9.3 |
| Region: Northeast | 10.9 | 6.0 | 8.8 | 9.5 |
| Region: Center | 12.8 | 15.7 | 13.6 | 15.9 |
| Region: South | 8.1 | 15.7 | 11.2 | 11.1 |
| Region: East | 33.7 | 28.24 | 29.9 | 29.2 |
| Region: Madrid | 21.9 | 21.34 | 23.0 | 20.3 |
| Region: Canary Islands | 5.9 | 4.0 | 5.1 | 4.7 |
| N | 7,664 | 2,914 | 39 | 100 |

Note: Sample weights included


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[^1]:    ${ }^{4}$ In Spanish: Ley 13/2005, de 1 de julio, por la que se modifica el Código Civil en materia de derecho a contraer matrimonio
    ${ }^{5}$ In Spanish: Ley 14/2006, de 26 de mayo, sobre técnicas de reproducción humana asistada. It updates the preceding law known as Ley 35/1998, de 22 de noviembre, sobre Técnicas de Reproducción Asistida.

[^2]:    ${ }^{6}$ For coresidential relationships a household grid is used, whereas for non-residenital relationships the question asked is: ¿Actualmente tiene una relación sentimental o está casado con alguna persona con la que no convive? [Do you currently have a sentimental relationship or are you married to a person who you do not live with?]
    ${ }^{7}$ In both the household grid and for non-residential partners, individuals were asked to specify the "sex" (sexo) of that person without specifying what exactly this referred to and only with binary answer options.

[^3]:    ${ }^{8}$ In robustness checks we also use the square root of ([desired number of children - observed number of children $]^{2}$ ). The results are very similar.

[^4]:    ${ }^{9}$ If age interacts with any other characteristic, controlling for age is insufficient in a normal regression setting. Exact matching accounts for all possible interaction effects of characteristics based on which observations are matched.
    ${ }^{10}$ See Table 1 for unweighted descriptive statistics for this set of matches. This illustrates that we have more matches for more common combinations of characteristics. The matching procedure uses weights to compensate for this imbalance in matched cases.
    ${ }^{11}$ Note that these are histories of people who were in a relationship at the time of interview and therefore exclude people who were not partnered at that time. Robustness checks including persons who ever had a (samesex) relationship did not change results (See Online Appendix Figure A-1).

[^5]:    ${ }^{12}$ Minimum cell size is 20 for age group 46-55. However, the absolute number of cases that have children, for each age group, is: $0(18-22)$; 1 (23-27); 6 (28-33); $9(34-38) ; 13(39-45) ; 10(46-55)$.

