Changing Gender Norms across Generations: Evidence from a Paternity Leave Reform

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Abstract: Social norms are an important barrier to gender convergence in economic outcomes. We study whether a public policy designed to promote gender equality at home can pave the way towards gender convergence by shaping gender norms in the next generation. We exploit the introduction of paid paternity leave in Spain in 2007, which granted fathers 13 days of non-transferable paid leave after childbirth. Eligibility depended sharply on the child's date of birth. We combine this policy variation with original survey data collected from adolescents and implement a within-school difference-in-differences design comparing children born just before and after the reform cutoff within the same school cohort, using adjacent cohorts as controls. Children exposed to paternity leave eligibility display more egalitarian gender attitudes and beliefs in early adolescence. They are also more likely to engage in counter-stereotypical household chores, and hold less gender-stereotypical expectations regarding future work and family roles. The effects largely disappear in late adolescence.

JEL Codes: J08, J13, J16, J18.
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1. Introduction

Gender gaps in labor market outcomes are still sizeable across the board, in spite of the substantial progress in women's educational attainment and labor force participation. Abundant research suggests that an important part of the remaining gaps is linked to very gendered patterns of within-household specialization, with men working more in the market and women working more in the home, especially after having children (Angelov et al. 2016, Kleven et al. 2019a, Bertrand 2020, Cortes and Pan 2023, Kleven et al. 2025). In turn, the persistence of gendered specialization in households is often linked to deeply rooted social norms about gender roles in the family and the labor market (Kleven et al. 2019b, Bertrand 2020, Bursztyn et al. 2023, Cortés et al. 2026).

Social norms are highly persistent and slow to change, partly because they are formed early in life and reinforced through family and social interactions (Fernández et al. 2004, Bicchieri 2006, Alesina et al. 2013, Farré and Vella 2013, Bisin and Verdier 2025, Giuliano 2026). As a result, policies aimed at promoting gender equality often face the challenge that they operate in an environment where attitudes and expectations about gender roles are well established.

Many policy interventions have attempted to tackle gender inequalities by altering the behavior of parents, usually targeting mothers, for example through subsidized childcare or parental leave policies. The effects of these policies on women's labor market outcomes are often limited (Olivetti and Petrongolo 2017, Albanesi et al. 2023, Dahl and Loken 2024, Kleven et al. 2024). More recently, policies have started to target men's involvement in childcare and housework. Reforms explicitly designed to encourage fathers' involvement in home production, such as paternity leave, have generally been found to produce small or short-lived effects on parents' labor market outcomes (Eckberg et al. 2013, Dahl et al. 2014, Cools et al. 2015, Farré and González 2019, Canaan et al. 2023, Andresen and Nix 2025). However, parental leave entitlements reserved for fathers have been shown to increase their participation in childcare and housework, with some evidence that these effects may persist in the long-run (Kotsadam and Finseraas 2011, Rege and Soli 2013, Tamm 2019, Farré and González 2019, Patnaik 2019, Dunatchik and Özcan 2020, Petts et al. 2020).

Through changes in parental specialization patterns within households, the effects of family policies may extend beyond the generation directly targeted by a reform. In particular, policy-induced changes in parental behaviors may influence how children

develop their views on gender roles. As suggested by Bertrand (2020), exposure to more egalitarian parental roles early in life may lead children to adopt different attitudes toward the division of labor in the household and the labor market. Such intergenerational transmission mechanisms could make policy interventions more powerful than suggested by their immediate effects on adult behavior alone. Yet there is limited causal evidence on the extent to which public policies that alter parental behavior can shape children's gender norms and promote gender convergence in the long run.

In this paper, we study whether paternity leave, a policy designed to promote gender equality at home, can influence children's attitudes and beliefs about gender roles years later. To that end, we exploit the introduction of paid paternity leave in Spain in 2007, which granted fathers 13 days of non-transferable, fully paid leave following the birth of a child. While the policy change seems small, previous research shows that the reform was well received and triggered persistent changes in fathers' childcare and housework time (Farré and González 2019, González and Zoabi 2021).[1]

Our empirical strategy leverages the sharp policy timing. The new law was passed shortly before implementation, and fathers were entitled to paternity leave only if their child was born on or after March 24, 2007. Because all children born in the same calendar year enter school in the same cohort in Spain, those born just before and just after the reform cutoff attend the same grade and share the same school environment. We focus on children born in 2007 and compare outcomes for those born after the eligibility cutoff to those born earlier in the same year, within the same school and grade. To account for potential season-of-birth effects or relative age within the cohort, we implement a difference-in-differences design using adjacent birth cohorts (2006 and 2008) as controls. This strategy allows us to isolate the causal effect of direct exposure to the paternity leave reform while holding constant the peer environment and other cohort- and school-level factors.

We combine this identification strategy with unique survey data that we collected in secondary schools. We collected a first wave of data between in 2019-20, when the targeted children were about 12 years old, and then a second one in 2024-25, when they were about 17. Children were thus surveyed both at the beginning and the end of

[1] See also our own evidence (in section 6).

adolescence, a critical period for the formation of identity and social norms (Kohlberg 1976, Carter and Patterson, 1982, Markus and Nurius 1986, Waylen and Wolke, 2004).

We rely on state-of-the-art survey and experimental methods to elicit, first, children's own attitudes and beliefs regarding gender roles in the family and the workplace (using a standard battery of questions developed by the International Social Survey Programme), and second, children's perceptions of the gender norms prevailing among their peers (using an adapted version of the incentivized coordination game developed by Krupka and Weber 2013). Both types of measures are relevant, since behavior may be affected by children's (possibly inaccurate) beliefs about other people's opinions, on top of their own attitudes (Bursztyn et al. 2020, Bursztyn et al 2023). In addition, we asked children about their day-to-day contributions to household chores (as a measure of actual behavior), and about their expectations and aspirations regarding their own future work and family life.

We find that paternity leave eligibility affects children's gender attitudes and beliefs at the onset of adolescence. Children born after the reform display significantly more egalitarian views about gender roles at age 12 (by about 0.2 standard deviations). Exposure to paternity leave also affects children's perception of the prevailing social norm, with a 15 percentage-point (23%) increase in the share of children stating that it is "socially appropriate" for a woman with young children to work, and a 17 percentage-point (32%) increase in the share stating that it is "socially appropriate" for a father to work less than full time. The introduction of paternity leave thus affected children's norms regarding both mothers and fathers. The effects are economically meaningful and robust across alternative specifications.

Turning to behaviors, we find that children born after the introduction of paternity leave are more likely to engage in counter-stereotypical household chores (by about 0.2 standard deviations). Treated girls are more involved in "male chores", such as small repairs, while treated boys contribute more to "female" ones, such as cleaning. Finally, children born after the reform see themselves in less gender-stereotypical family arrangements in the future, with boys less likely to see themselves working full-time when they themselves have children.

We also find that these effects appear to evolve over time. In our first survey wave, conducted when children are at the beginning of adolescence, we observe clear increases in egalitarian attitudes and beliefs among children exposed to the policy. In our second

survey wave, conducted with the same cohort at the end of adolescence, the estimated effects become smaller and statistically insignificant. At age 17, children born just after the reform do not exhibit different gender attitudes and beliefs compared with their peers born just before the reform. This pattern is consistent with parents and the home environment playing a central role in shaping attitudes and beliefs during childhood, while the social environment, including peer effects and societal trends more broadly, becomes increasingly important during adolescence (Steinberg and Silverberg 1986, Brown and Larson 2009, Laursen and Veenstra 2021, Fernández 2025, Agostinelli et al. 2026), potentially generating spillovers and thus convergence between children born before and after the reform within the same school cohort.

We explore several mechanisms that may drive our findings. We propose that the main channel is likely to be changes in parental behaviors during childhood. In particular, we show that paternity leave leads to a persistent increase in fathers' involvement in childcare and domestic chores during children's lives, providing them with a more egalitarian model of parental roles. This early exposure could shape children's opinions about the appropriate division of labor within families.

We contribute to the literature by providing causal evidence that public policy can influence social norms indirectly, via changes in parental behaviors that affect their children's attitudes and beliefs. This finding implies that policies that have small effects on short-term behaviors in the targeted cohort may still contribute significantly to social change if parents' behaviors shape norms in the next generation. This result is relevant for several strands of literature.

First, our findings add to the broad literature on the formation and evolution of social norms. While norms are often viewed as slow-moving and persistent, recent research highlights that they can respond to economic incentives, institutional changes, and shifts in behavior (Giuliano 2026). We show that a relatively small but salient policy reform (granting fathers 13 days of paid leave) can influence gender attitudes and promote gender equality in the next generation (although these effects may be hard to detect in the long term if peer effects and broader societal trends become more important as children age).

Second, our paper contributes to the literature documenting the intergenerational transmission of gender norms. A number of studies have shown that children's attitudes and behaviors are correlated with those of their parents (Farré and Vella 2013, Bertrand

2019), and that exposure to working mothers or female role models can influence children's labor market (and marriage) outcomes (Fernández et al. 2004). Our analysis provides causal evidence that policy-induced changes in parental behavior can shape children's views towards gender roles, reinforcing the importance of the vertical socialization mechanism for cultural transmission (Bisin and Verdier, 2011 and 2025).

Third, we complement previous work studying the direct effect of public policies on adults' gender attitudes and behaviors. Bastian (2020) documents how the implementation of the Earned Income Tax Credit in the U.S. in and the subsequent rise in maternal employment changed the role of women in the economy and society, including effects on attitudes towards working women within the same generation.[2] Tavits et al. (2023) provide direct evidence on the impact of paternity leave on parents' gender-egalitarian attitudes, by studying the 2020 extension of paternity leave in Estonia (from 10 to 30 calendar days). Similar evidence is provided by Kleven et al. (2026), who show that a paternity leave extension in Denmark makes parents more supportive of paternity leave, shifts parents' gender-role beliefs in a progressive direction, and reduces perceived differences in childcare ability. We explore the extent to which these policy-induced changes in parental attitudes and behaviors spill over to the next generation. As such, we also contribute to a scarce but growing literature on spillover effects of public policies (Dahl et al. 2014, Brollo et al. 2020, Dahl and Gielen 2021).

Finally, we add to recent research examining whether policies can influence gender norms in childhood or adolescence. Several recent studies show that interventions directly targeting children or adolescents, such as school-based programs, can affect their attitudes about gender roles (Dhar et al. 2022, Hara and Rodríguez-Planas 2025, Garcia-Brazales 2026). Dhar et al. (2022) evaluate the impact of a school-based randomized intervention in India that engaged adolescents in classroom discussions about gender equality. The intervention not only fostered more progressive gender attitudes, but also induced more gender-egalitarian behaviors. The effect sizes of their intervention, a two-and-a-half-year-long pedagogical program in school, are comparable to ours, in our case driven by a public policy inducing a permanent change in parents' behavior at home, and thus the environment that children grow up in.

[2] There is also cross-country evidence on the impact of childcare provision (Neimanns 2021) and of same-sex relationship recognition policies (Aksoy et al. 2020) on attitudes in Europe.

The rest of the paper is organized as follows. Section 2 describes the policy change and the institutional setting. Section 3 introduces our identification strategy. In section 4 we describe our data sets and provide descriptive statistics on the main outcome variables. The main results are presented in section 5, while section 6 describes the evidence on mechanisms, and section 6 concludes.

2. The introduction of paternity leave in Spain

Spain introduced 13 days of paid paternity leave in 2007.[3] Before this policy change, fathers had the right to two (paid) days off from work after the birth of a child (covered by the firm), which thus became 15 after the reform.[4] Maternity leave was unchanged (at 16 weeks).[5] The 13 days for fathers were not transferable to the mother, and earnings were fully replaced by the Social Security.

To be eligible for the new benefit, a father had to be in formal employment (or receiving unemployment benefits) at the time of childbirth, and he had to accumulate at least 180 days of Social Security contributions during the previous 7 years (or 360 throughout his life). He had to stop working during paternity leave, which could be taken either during the 16 weeks of maternity leave (in parallel), or immediately after.

The law was passed on March 15, and it became effective the day after it was published in the official bulletin (on March 23). This implies that fathers were eligible if their child was born from March 24 onward.[6] The reform was highly publicized, and take-up was high from the start. The Social Security administration reports paying 173,161 paternity leave benefits in 2007, for a cost of about €123 million. According to birth-certificate data, there were 378,057 births in Spain between March 24 and December 31 of 2007. This implies that about 46% of new fathers in Spain received the benefit after its

[3] *Ley Orgánica 3/2007 para la Igualdad Efectiva de Mujeres y Hombres.*
[4] The exception were public sector workers (roughly 15% of the total workforce), who enjoyed 10 days of paternity leave since 2005 ("Plan Concilia" implemented on December 27, 2005), and public employees of the Catalan government, who were entitled to 4 weeks of paternity leave since 2006 (Article 13 of the law 8/2006 implemented on July 5, 2006).
[5] *Ley Orgánica 8/1980*. Maternity leave eligibility was tied to a formal work contract (or to being officially registered as unemployed). The permit was paid and included 6 compulsory weeks plus 10 weeks that could be transferred to the father (in practice, very few couples transferred any, see Figure 1).
[6] No other new policies (included in the same law or otherwise) applied differentially to children born after March 23, 2007.

implementation in 2007 (over half of all eligible men, if we consider formal employment rates close to 90% in the relevant population).

Figure 1 shows the annual number of maternity and paternity leave benefits granted over the total number of births between 2002 and 2018, in Spain as a whole, in the region of Catalonia, and in the province of Barcelona (where most of our data collection took place). Roughly two thirds of all mothers in Spain (and three quarters of all mothers in Barcelona) take maternity leave (black and light grey lines, respectively).[7] Participation in maternity leave remained fairly stable over the entire period. Regarding paternity leave, participation was 54% in Barcelona in 2007 (62% in 2008), higher than the national rate, likely linked to higher formal employment rates. Participation in paternity leave increased steadily over the years, reaching 60% at the national level and 70% in Barcelona in 2016.[8] A clear increase in paternity leave uptake is noticeable in 2017, when the maximum duration was extended to four weeks (see Farré et al., 2025 for a description of the 2017 and subsequent reforms).

3. Empirical strategy

Our goal is to estimate the causal effect of fathers' eligibility for paternity leave on their children's attitudes, beliefs and behaviors in adolescence. We exploit the introduction of 13 days of paid paternity leave in Spain as a natural experiment. Since fathers were eligible for the new policy if their child was born on or after March 24 of 2007, we focus on children born in 2007. In Spain, children born in the same calendar year start school at the same time (belong to the same school cohort). As a result, in primary and secondary school, children born shortly before and after March 24 of 2007 sit in the same grade.[9]

We estimate the effect of children's exposure to paternity leave eligibility in a within-school difference-in-differences framework, where children born in 2007 are our main cohort of interest. We compare outcomes for children born on or after March 24 (whose fathers were "just" eligible for paternity leave) to those of their classmates born

[7] Maternity leave eligibility required a formal contract, and only about 66% of women 30-45 in Spain had a formal job in 2006 (according to the Labor Force Survey).
[8] Maternity leave could be partially transferred to the father before the introduction of paternity leave, but very few families did it, as illustrated by the bottom lines in Figure 1.
[9] "Redshirting" is not an option in Spain at the start of compulsory education. Children who under-perform in primary education can repeat a grade, and children who are certified as gifted can skip a grade, but these circumstances affect very few children (and we can observe them in our data).

before that date (whose fathers were not eligible for paternity leave). To control for season of birth effects or relative age within cohort, we take advantage of adjacent cohorts: children born in 2006 (whose fathers were all ineligible for paternity leave at the time of the child's birth) and/or children born in 2008 (whose fathers were all eligible). We include school fixed effects to control for all factors common to children attending the same school (peers, teachers, school quality, etc.). Our empirical strategy thus isolates the effect of a child's father being eligible for paternity leave, while holding peers (and peers' parents) and the school environment constant. The treatment is thus direct exposure to paternity leave eligibility of a child's own father, and the treatment effect operates through changes in a child's home environment triggered by direct eligibility.

Our identifying assumption is that the difference in average outcomes between children born before and after March 24 in the control cohorts is a good counterfactual for what the difference would have been in the 2007 cohort, in the absence of the paternity leave introduction. While we can confidently rule out any curriculum-related differences around the cut-off date (since children born in the same cohort attend the same grade in the same school), we assume that relative-age or season-of-birth effects unfold similarly across the three neighboring cohorts. While children undergo substantial changes during puberty, it is unlikely that these changes affect slightly older and younger children within a cohort differently depending on their year of birth.[10]

The introduction of paternity leave may have affected the behavior of all fathers in a cohort, including ineligible ones, for instance through peer effects among parents or broader shifts in social norms. Because our identification strategy compares eligible and ineligible children within the same cohort, it nets out these cohort-wide norm and peer effects, and isolates the direct impact of a child's own paternal eligibility. We cannot rule out spillovers from treated to control children within the same cohort, but such spillovers would bias our estimates toward zero.

Our basic difference-in-differences equation is the following:

[10] Puberty spans a wide age window, from roughly ages 8 to 13 for girls and 9 to 14 for boys. Since its onset and progress are not synchronized across individuals, the developmental stage is unlikely to differ systematically between children born just before and after March 24, and differentially so in neighboring cohorts. As an additional safeguard, we restrict our sample to a 3-month window around the threshold, to limit the scope for systematic differences in children's development around the cutoff birthdate at the time of the survey (specific to the 2007 cohort).

$$(1)\ Y_{isc} = \beta_0 + \beta_1 After_i + \beta_2 After_i \ x\ TreatedCohort_i + \gamma X_i + \mu_s + \lambda_c + \varepsilon_{isc},$$

where Y_{isc} is an outcome for child i attending school s and born in year c, $After_i$ is an indicator for child i's date of birth being on or after March 24 of a given year, $After_i \ x\ TreatedCohort_i$ indicates that child i was born in 2007 and on or after March 24 (and thus right after the policy reform), and μ_s and λ_c are school and cohort (year of birth) fixed effects. We also include control variables (X_i) that may correlate with attitudes, such as child gender, birth order, parental education, and immigrant background. We cluster standard errors by school cohort (the interaction of school and grade). The coefficient of interest, β_2, captures the difference between children born on or after March 24 of 2007, relative to those born in 2007 but before March 24, above and beyond the difference between the two groups of children (with a birthdate before and after March 24) in the control cohorts. Because participation in paternity leave was incomplete (see section 2), these are "intent-to-treat" estimates.

We collect data in schools at two points in time: when the targeted cohort (2007) was in the first grade of secondary school (7th grade), and again when it was in the last grade of high school (12th grade). At the time of the two survey waves, children were on average 12 and 17 years old, respectively (i.e., in early and late adolescence). In our main specification, we allow the coefficient of interest to differ between the two waves of data collection. The main estimating equation is thus the following:

$$(2)\ Y_{isct} = \delta_0 + \delta_1 After_i + \delta_2 Wave2_t + \delta_3 After_i \ x\ Wave2_t + \delta_4 Wave2_t \ x\ TreatedCohort_i + \delta_5 After_i \ x\ TreatedCohort_i + \delta_6 After_i \ x\ TreatedCohort_i \ x\ Wave2_t + \gamma X_i + \mu_s + \lambda_c + \varepsilon_{isc},$$

where $Wave2_t$ is an indicator for the second wave of data collection, capturing general age and/or time effects (since the two waves are five years apart). Coefficient δ_5 captures the effect of interest in the first wave, when children are about 12. Coefficient δ_6 captures the change in the estimated effect between the first and the second wave, i.e., between ages 12 and 17. This coefficient may be zero if the effect is stable over time, positive if the effect becomes larger, or negative if it attenuates over time.[11]

[11] For robustness, we also report results from two alternative specifications: a regression discontinuity design using (binned) date of birth as the running variable, and an RD-DiD using the neighboring cohorts as controls.

4. Data and descriptive statistics

4.1 Our survey

Our empirical strategy requires a large sample of children born in a narrow window around the reform's enactment date (March 24, 2007). To reach this group and ensure a sufficient number of observations, we opted to collect our own data and ran a survey in schools.[12] The first wave of data collection took place between May 2019 and February 2020, while the second one was collected between November 2024 and April 2025. We targeted schools in the region of Catalonia (Spain), specifically in the province of Barcelona,[13] where participation in paternity leave was relatively high (see Figure 1). During the first wave of data collection, we visited a total of 15 schools, while we visited 7 in the second wave (3 schools were visited in both waves). Our (convenience) sample thus comprises 19 schools, including both public and private, located in urban and rural areas, and in higher- and lower-income neighborhoods.[14] The selected schools are broadly representative in terms of school size and student composition. Note that our identification strategy relies on within-school variation only.

The study was pre-registered and approved by the ethics and data protection offices at Universitat Pompeu Fabra.[15] A week before data collection, schools informed parents about the study and its general purpose (but not the specific research question) via email. Parents had the option to withdraw their consent regarding their children's participation.[16]

The survey took place during regular school hours, which ensured that we could reach all students (except in case of illness or other absences from school). At the beginning of the survey, we informed students about the general purpose of the study without providing details about our specific research question.[17] We also gave them the

[12] See Appendix B.2 for the full survey administered to students.
[13] One school was located in the neighboring province of Girona.
[14] We contacted all secondary schools in the region via email, and after a very low response rate we re-contacted (by phone and/or in person) those schools where we had personal contacts.
[15] Project submitted on 2020-02-10 under "Can public policy change gender norms? How paternity leave affects children".
[16] See Appendix B.1 for the precise text of the information letter. The ethics and data protection office agreed to the opt-out/informed dissent approach as the data collection took place in the premises of schools. Some schools in the second wave requested explicit signed consent from the parents.
[17] The precise information given to the students is shown in Appendix B.2.

option to not participate or to drop out at any point during the survey. Students were paid a show-up fee and could earn additional tokens during the survey, which they could exchange for vouchers valid at a nearby stationery store. Participants received on average 6€, with a minimum of 3€ (show-up fee) and a maximum of 12€.

The first wave of data collection was computer-based and took place in a designated room inside the school (e.g., a classroom, the library), where a team of 2 to 3 enumerators had installed our mobile laboratory (consisting of 35 laptops) and administered the survey. Students came into the room together with their classmates, in groups of 14 to 32 students. To ensure privacy, we set up cardboard screens between the students (see Figure C.2 in Appendix C). To avoid priming effects, the order of the questions was randomized. After the enumerators had read the instructions out loud, students answered all questions individually and at their own pace. They needed on average 27 minutes to complete the questionnaire. Students who completed the questionnaire early were asked to stay in the room reading in silence (we provided reading materials).

The second wave of data collection was paper-based and took place in parallel in all participating classes in the same school. One or two enumerators were assigned to each classroom to distribute the survey, read the instructions out loud and supervise the participating students (together with the teacher). In the second wave, students completed the questionnaire faster than in the first wave (on average after 20 minutes), in part because they were older, but also because the questionnaire was shorter.

The main part of the survey was designed to elicit children's attitudes, beliefs, and perceptions of prevailing gender norms, as well as their day-to-day contributions to household chores, and their expectations and aspirations regarding their own future work and family life. We also collected demographic information, including age, migration background, parental education, and family structure.[18]

A total of 3,741 students participated in our survey (2,328 in the first wave and 1,413 in the second). Our sample includes 1,719 children born in 2007, 1,104 born in

[18] The full questionnaire can be found in Appendix B.2. In the first wave, in addition to the module on attitudes, beliefs and demographics, the questionnaire also included a module designed to evaluate children's economic preferences (competitiveness, risk aversion, overconfidence), and an optional module eliciting social desirability bias. The questionnaire administered in the second wave excluded these additional modules (Modules III: Contests, and VI: Optional).

2006, and 802 born in 2008.[19] Descriptive statistics by wave are shown in Appendix Table A1 (Panel D). The children are on average 12.4 years old in the first wave and 16.6 in the second one. About 53% of respondents are girls, 94% are born in Spain, and 73% live with both parents at the time of the survey.

Main outcome variables

We use a combination of classical survey questions and incentivized experimental methods to elicit children's attitudes and beliefs about gender roles. We also include questions about children's day-to-day behaviors and their expectations and aspirations regarding their own future employment and fertility.

Our first set of outcome variables measures ***children's attitudes about gender roles***. We included a standard battery of questions, developed by the International Social Survey Programme (ISSP) and widely used in the economics literature on gender norms (see for instance Giuliano 2018 and Bertrand et al. 2021). We asked children to rate on a 5-point Likert scale the extent to which they agreed or disagreed with a series of seven statements regarding the role of men and women in the labor market and in the home (see questions 1.a-1.g in the questionnaire in Appendix B.2).[20] We use the standardized first component of a principal components analysis as our ***"gender role attitudes index"***.[21]

Table A1 (Panel A) provides summary statistics for the full sample (by wave) and for the subset of children born shortly before the policy introduction (between January 1 and March 23 of 2007), which we use as our benchmark. Overall, older children (aged 17

[19] Five are born in 2004, 88 in 2005, and 11 in 2009 (11 children in the first wave and 1 child in the second wave did not report their date of birth). In the first wave, we targeted the 2006 and 2007 cohorts. In the second wave, the 2006 cohort was out of high school, so we surveyed the 2007 and 2008 cohorts. Thus, we use 2006 as the control cohort in the first wave and 2008 in the second wave.

[20] For explorative purposes we added two more questions after the pilot. We do not include these questions in our main gender role attitudes index to maximize sample size, but we do include them in robustness analyses.

[21] We first code the answers to each statement such that a value of 0 corresponds to the most traditional view and a value of 4 to the most egalitarian view. Accordingly, for questions (a) and (b) in Panel A of Table A1 we assign a value of 4 if the respondent "*strongly agrees*", 3 if "*agrees*", 2 if "*neither agrees nor disagrees*", 1 if "*disagrees*" and 0 if "*strongly disagrees*". For questions (c) to (g), a value of 0 if "*strongly agrees*", 1 if "*agrees*", 2 if "*neither agrees nor disagrees*", 3 if "*disagrees*" and 4 if "*strongly disagrees*". We then conduct the principal components analysis. The first principal component is positively loaded on all items and explains 28% of the overall variance. We standardize this first principal component to have mean 0 and standard deviation 1, and refer to it as the gender role attitudes index.

and surveyed in 2024-25) report more gender-egalitarian views than younger children (aged 12, surveyed in 2019-20). For example, among younger children, 68% agree with the statement that "a working mother can establish just as warm and secure a relationship with her children as a mother who does not work", while agreement reaches 80% among the older children. For the statement that "a preschool child is likely to suffer if his or her mother works," these shares amount to 45% and 60%, respectively, and for the statement that "a job is alright, but what most women really want is a home and children," the respective fractions are 53% and 73%. These differences may reflect children developing more progressive views as they grow older, and/or a general trend towards more gender-egalitarian views in society between 2019-20 and 2024-25.

The level of agreement with the different statements in our sample of children is similar to the adult sample in the 2022 wave of the ISSP (see Appendix Table A2). If anything, our sample displays more gender egalitarian views than the average Spanish adult, especially in the second wave. For example, about 64% of the ISSP sample report agreement with the statement that "a working mother can establish just as warm and secure a relationship with her children as a mother who does not work", in contrast to 68% of the younger children in our sample and 80% of the older ones. About 53% of the ISSP adult sample disagree that "a child is likely to suffer if his or her mother works", while the equivalent figures are 45% and 64% in our sample.

Our identification strategy relies on comparing outcomes for children born before and after March 24 of 2007. Figure 2 presents raw averages for our main dependent variables in those two groups of children,[22] by survey wave. Panel A shows the first item in our battery of gender role attitudes (agreement with "a working mother can establish just as warm and secure a relationship with her children as a mother who does not work"). Children born after March 24 show slightly more egalitarian views than their classmates (who are on average three months older), a pattern that counteracts the general trend of more progressive views as children grow older.

In our second set of outcome variables, we elicit children's ***own beliefs*** regarding the employment of women and men with children below school age (see questions 2.a

[22] We restrict the sample to children born in Spain between January and June of 2007.

and 2.b in the questionnaire in Appendix B.2).[23] We again draw on a widely used question from the ISSP about mothers' work (see for instance Doepke and Kindermann, 2019 and Kleven et al., 2019). We add a parallel question about fathers' work given that our treatment affects paternal behavior.[24] Table A1, Panel B shows that most children in our sample think that both women and men with children under school age should work part-time: among 12-year-old children, the respective fractions are 70% and 79%, while among 17-year-olds, this preference intensifies slightly (72% and 79%, respectively). However, when considering the extensive margin of employment, there is a clear gender difference: while more than 26% of 12-year-old children think the mother should not work at all, the respective share is 14% when it comes to fathers (23% vs. 12% for 17-year-olds).

Using the answers to these questions, we create two binary variables that capture the extent to which children hold counter-stereotypical beliefs regarding parents' work. The indicator for children's ***"own beliefs about mothers"*** takes value 1 if the child reports that a mother with a child below school age should work part-time or full-time (and 0 if they think she should not work), while ***"own beliefs about fathers"*** takes value 1 if the child reports that a father with a child below school age should work part-time or not at all (and 0 if they think he should work full-time).

Figure 2, Panel B compares the average beliefs about mothers for children born before and after March 24 of 2007. The overall levels of support for maternal employment are slightly higher in the second wave. More "treated" than "control" children agree that a mother with a young child should work in the first wave (75% vs. 73%), but the (small) difference in support of working mothers disappears (even reverses) in the second wave (79% vs. 81%). Panel C of Figure 2 shows the corresponding averages for beliefs about fathers' work. Almost all children report that the father of a preschool-age child should work less than full time, and the fraction is slightly lower among children exposed to paternity leave (95% versus 96% in the first wave, and 90% versus 97% in the second wave).

[23] In Spain, access to public education is universal (and free) from September of the year when a child turns 3. About 98% of all 3-year-olds are enrolled in school (Farré et al. 2018).

[24] We also include a third question eliciting students' views regarding the ideal way to organize work and family life, considering mothers and fathers jointly.

Our third set of outcomes captures children's perceptions about the prevailing ***social norm*** regarding mothers' and fathers' behaviors. We implement an incentivized elicitation method (see Module III of the questionnaire in Appendix B.2), which adapts the incentivized coordination game developed by Krupka and Weber (2013) to be appropriate for children. We explain the game to the children as follows: "*You will now play a little game with one of your classmates without knowing who s/he is. In this game we will ask you both the same question. If you both give the same answer, you will both earn 4 points. If you do not give the same answer, no one will get any points.*" [25] After ensuring that the children understood the coordination aspect of the game using several control questions,[26] we asked the children to rate (on a 4-point Likert scale) how "*socially acceptable*" it is that "*a woman with a child below school age works full-time*", that "*a woman with a child below school age works part-time*", that "*a father with a child below school age works part-time*", and that "*a father with a child below school age does not work at all*". We were very careful in explaining the meaning of "*socially (un)acceptable*" as "*a behavior that most people believe to be correct or good (incorrect or bad)*". Presenting these questions as an incentivized coordination game encourages children to consider not only their own opinions, but also the opinions of others and how they may align with each other. As such, these questions measure their perception of the social norm prevailing among their classmates.

We aggregate children's responses regarding the social appropriateness of mothers working full-time or part-time and fathers working part-time or not at all, and create indicators for children's perception of the ***"social norm about mothers"*** and ***"social norm about fathers"***.[27] Most of the children in our sample hold counter-stereotypical perceptions of the prevailing social norm. In the first wave, 70% of children report it's socially appropriate for mothers to work outside the home, while 60% report it's socially

[25] Payments were calculated based on random matching of the children in pairs, and made at the end of each session.
[26] The first control question asked "Do you think it will rain tomorrow?" and was meant to make children think about the coordination aspect. The second question asked children whether cheating in an exam is socially acceptable, and was meant to help them think about the prevailing social norm.
[27] We split categories at the median, which leads us to consider both "*appropriate*" and "*fairly appropriate*" categories for the social norm about mothers, but only the answer category "*appropriate*" for fathers.

acceptable for fathers to work less than full-time (see Panel C of Table A1). In the second wave, the respective shares are 81% and 53%.

Figure 2, Panel D shows that children exposed to paternity leave are more likely to "coordinate" on mothers' work being socially acceptable (70% versus 64% in the first wave, and 84% versus 81% in the second wave). Treated children are also more likely to indicate that it's socially acceptable for fathers to work less than full-time (65% versus 54% in the first wave, and 55% versus 52% in the second wave, see Figure 2, Panel E).

Because of concerns about multiple hypothesis testing, we also combine all of our main outcomes (described above) into a single, ***global index*** of children's attitudes and beliefs. This index is the (standardized) first component of a principal components decomposition that combines our five main outcomes (the attitudes index, the measures of own beliefs about mothers and fathers, and the two variables capturing children's perceptions of the prevailing social norm about mothers and fathers). The average values of the index by cohort and date of birth are shown in Figure 3.[28] In the treated cohort, children born after March 23 present higher values for the index, indicating more egalitarian attitudes and beliefs. That is not the case in the control cohorts, where children born earlier in the year present slightly higher values. Our basic difference-in-differences exercise is illustrated by the difference between the two grey bars.

Secondary outcomes

In addition to questions about attitudes and beliefs (our core outcomes), we also collect information on children's ***behaviors***, focusing on their day-to-day contributions to ***household chores***. We ask children how often (on a 4-point Likert scale) they help at home with the following tasks: laundry, grocery shopping, small repairs, cleaning the house, and cooking (see question 2 in Module VI in the questionnaire in Appendix B.2). Summary statistics for these variables are shown in Appendix Table A3 (Panel A).[29] (Control) girls report higher participation in cleaning, cooking and laundry than boys in both waves, while boys contribute more than girls to grocery shopping and repairs. We combine the five tasks into a single variable that measures children's contribution to counter-stereotypical chores, defined as those chores where the other gender contributes

[28] The average value of the global index is -0.05 in the first wave versus 0.36 in the second wave, indicating again more progressive views on average among older children.
[29] We code each chore as 1 if the child reports contributing "sometimes" or "at least once per week", and 0 if they report "rarely" or "never".

more on average. For girls, this variable adds up the dummies indicating their contribution to "male tasks" (shopping and repairs) and subtracts the ones for "female tasks" (cleaning, laundry and cooking), while for boys we add up the dummies for "female tasks" and subtract the male ones. We then standardize this variable using the mean and standard deviation of the control group.[30]

Finally, to get as close as possible to children's future labor supply choices, we collect information on children's ***expectations and aspirations*** about their own future family and work life. We asked them "*How do you see yourself 20 years from now?*" (see question 1 in Module IV in the questionnaire in Appendix B.2). Answer categories were "*working full-time and with children*", "*working part-time and with children*", "*not working with children*", "*working without children*" and "*not working and without children*". Descriptive statistics are presented in Panel B of Table A3. Most of the children in our sample report that they see themselves as having children themselves (64% of the boys and 61% of the girls in wave 1, 53% of the boys and 57% of the girls in wave 2), while a minority of both boys and girls think that they will work full-time when they become parents (25% of the boys and 12% of the girls in wave 1, 33% of the boys and 35% of the girls in wave 2).

We also include a question on occupational aspirations *("What do you want to be when you grow up?")*.[31] We construct an indicator of "counter-stereotypical occupations" that takes value 1 when children select a job that is one of the three most popular occupations among the opposite sex.[32] About 7% of boys and 11% of girls express a preference for a counter-stereotypical occupation in the first wave (22% and 12% in the second wave). We also create an indicator for STEM occupations (engineering and computer science). In the first wave, 30% of boys express a preference for STEM occupations, compared with 8% of girls. In the second wave, the respective shares are 38% and 11%.

[30] Children born between January 1 and March 23 of 2007.
[31] They had to choose one option from a list, and they could also write in their preferred occupation if it wasn't in the list.
[32] The most popular occupations are: soccer player, engineer and computer scientist for boys, and teacher, fashion designer and lawyer for girls.

In our first wave of data collection, when the survey was computer-based, we also ask children to participate in an incentivized game to elicit their willingness to compete (see Module II of the questionnaire in Appendix B.2, based on Niederle and Vesterlund, 2007). Children complete three rounds of a math task (adding three 2-digit numbers for two minutes). In the first round they solve the tasks individually (piece-rate), in the second round they compete with other children (tournament), and in the third round they can choose whether to solve the tasks under piece-rate or tournament. Under piece-rate, incentives are proportional to the number of additions solved correctly, while in the tournament the payment per correct addition is four times as large, but only paid to the highest performer in the group, while all others receive nothing. The number of additions solved correctly provides a measure of children's math skills, while their choice between solving the tasks under piece-rate versus tournament measures their willingness to compete. To separate children's willingness to compete from general risk aversion, we also ask children to choose between six different lotteries that vary in risk and expected payoff. We also ask children their beliefs regarding their relative performance in the math task (as a measure of self-confidence), and their beliefs about the gender of top and bottom performers (as a measure of gender-stereotypical beliefs regarding math performance).[33]

To explore any potential effects of paternity leave exposure on children's human capital development, in addition to our own survey, we exploit administrative data on ***educational outcomes*** from Idescat (Catalonia's Statistical Institute). We obtained information on a random sample of 40% of all children born in 2006 and 2007 attending public school in Catalonia. Our outcomes of interest are standardized test scores in math and languages (Catalan and English) in 6th and 10th grade, as well as an indicator for whether the child attends academic high school (non-compulsory) and an indicator for the child enrolling in the STEM track in high school.[34]

4.2 Additional data sources on mechanisms

We use several other primary and secondary data sets to provide additional evidence on mechanisms, focusing on the effects of paternity leave on fathers' contribution to

[33] Means for these outcomes can be found in Table A6.
[34] Means for these outcomes can be found in Table A7.

childcare and household chores and on fathers' and mothers' labor market outcomes, and spanning the period when the relevant children were between 0 and 16 years old.

We first draw upon the Spanish ***Time-Use Survey*** of 2009-10, which provides very detailed information on time-use for adults. We restrict the sample to men and women with children born in 2006-08, and estimate our main specification (equation 1) using as outcomes the daily minutes spent in childcare, housework, and market work (when the targeted children are between 2 and 3 years old).[35] The sample size is 515 fathers and 547 mothers. Mothers in the control group report spending on average 5 and a half hours per day (329 minutes) in housework and childcare, while fathers report 4.3 hours (260 minutes).

Our second data set is the Spanish ***Fertility Survey*** of 2018, which covers a large sample of women (and a smaller sample of men) and includes questions on the split of childcare activities between partners. We again include men and women living with a child born in 2006, 2007 or 2008. The reform children are around 11 years old at the time of the survey. The overall sample size is 2,116, including both men and women. Our outcomes are a set of indicators that take value 1 if the father does most or all of a number of day-to-day childcare and household chores. There are 10 activities listed, including playing with the child, taking the child to school, being home after school, helping with homework, taking care of food preparation, doing laundry, and taking care of the child when she is sick. In our sample, 25% of fathers are mainly responsible for helping with homework, while 19% are in charge of food preparation. We also create a variable that combines all 10 activities (by simply adding up all ten indicators and then standardizing). On average, fathers in the control group are responsible for 3 out of the 10 activities.

We also exploit two primary data sets that we collected in 2020 (with the purpose of studying behaviors within households during the Covid-19 pandemic).[36] We first conducted an ***online survey*** in April of 2020, shortly after our first wave of the school survey and thus when the reform children were 12-13 years old.[37] The relevant sample includes 2,428 parents (with children born in 2006-07) who report on their relative

[35] The Time-Use Survey and the Fertility Survey do not report the exact date of birth of the children, so we use month of birth for eligibility status, with March 2007 children coded as untreated and April 2007 as treated.
[36] See Farré et al. (2022) for a detailed description of the data.
[37] We distributed the survey on social media, so that the resulting sample is self-selected and not representative of the population.

contribution to different childcare and household chores. While 23% of fathers in the control group report doing most or all of the grocery shopping, only 5% were doing most of the laundry. Later in 2020, we had a survey company (***Ipsos***) run another online survey with a representative sample of the adult population in Spain. Data was collected in two waves with two separate samples (first in May and then in November 2020). This survey included questions on weekly hours of paid work, domestic chores, and childcare activities. The relevant sample contains 715 men and 688 women. Fathers in the control group report 30 weekly hours of market work, 7 hours of household chores, and 17 hours of childcare, while the respective numbers for mothers are 22 hours, 13 hours and 30 hours.

Finally, the OECD conducted the ***2023 Survey on Social and Emotional Skills (SSES)*** on a representative sample of children born in 2007 in a number of countries, including Spain. This survey is the closest in time to the second wave of our in-school survey, and asks children about their mothers' and fathers' relative contribution to childcare activities and household chores. The Spanish sample includes 3,303 observations and allows for supporting (descriptive) evidence on long-run changes in within-household specialization (we cannot estimate our DiD specification since the sample is limited to children born in 2007).

We also provide direct evidence on the effects of paternity leave eligibility on parent's labor market outcomes. We draw upon ***Labor Force Survey*** data, combine data for all quarters between 2006 and 2024, and restrict the sample to parents living with children born in 2006-08. This data set allows us to evaluate the effects of paternity leave on mothers' and fathers' labor market outcomes when the children of interest are between 0 and 15 years of age. We create indicators for the extensive margin of employment, namely mothers and fathers being at work the week before the respective survey, and a continuous variable capturing the intensive margin (weekly number of hours worked). We estimate separate regressions by age of the relevant child.

5. Effects on the next generation

We next present our main results from estimating equations (1) and (2) using our school survey data to examine the effects of paternity leave on children's outcomes. Section 5.1 presents the results for our main outcomes of interest (attitudes and beliefs), while section 5.2 describes our findings for children's behavior (their contribution to household chores)

and their expectations regarding their future work and family life, and section 5.3. focuses on children's human capital development.

5.1 Gender role attitudes, beliefs, and perceived social norms

Our main findings are summarized in Table 1, where we present the results of estimating equations (1) and (2) for the ***global index*** of children's gender attitudes and beliefs. This measure combines the gender attitudes index as well as our measures of own beliefs and perceptions of the prevailing social norm about mothers' and fathers' employment. We control for gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), migration background of the child, the mother and the father (foreign-born indicators), and school and cohort fixed effects.

The first column of Table 1 shows the results for the full sample (with non-missing information on the main outcome variables). The first row (Panel A) displays the main effect from estimating equation (1). We find that children directly exposed to paternity leave report more gender egalitarian attitudes and beliefs, by about 0.10 standard deviations. This coefficient is not statistically different from zero. We next present the results for equation (2), where we estimate the effect separately for our two waves of data collection, when the relevant cohort of children are 12 and 17 years old, respectively. In the first wave, children born after the reform display significantly more egalitarian attitudes and beliefs (first row of Panel B). The magnitude of the effect is about 0.24 standard deviations. The interaction with the second wave is negative and of a similar magnitude (second row of Panel B), so that the estimated effect is not significantly different from zero in the second wave (final row of Panel B).

These results are robust to a number of variations in the baseline specification. The second column shows the results from a specification that includes a set of finer birth date fixed effects (bins of ten to eleven days, instead of an indicator for children born on or after March 24 of a given year). These fixed effects control for any non-linear age (or season of birth) effects within birth cohort. The results are almost identical. In column 3, we restrict the sample to children born in Spain in years 2006 to 2008. In column 4, we only include children born between January and June, so that the sample is symmetric around the cutoff date and control and treated children are closer in age. The results remain very similar to the baseline. Finally, we address a potential concern about composition effects between the children surveyed in the two waves, as the schools do

not fully overlap. To this end, we restrict the sample to the three schools that we surveyed in both waves. The results are less precise given the smaller sample size, but the magnitudes are again comparable (see column 5): the effect amounts to about 20% of a standard deviation in the first wave, and goes down to zero in the second wave.[38]

We conduct a set of placebo regressions in order to assess the credibility of our main results. We reshuffle children's (binned) date of birth at random and re-estimate equation (2) two hundred times. Appendix Figure A1 displays the histogram for the 200 placebo estimates of our main coefficient of interest, capturing the effect in the first wave (δ_5). As expected, the distribution is centered at 0. The dashed lines show the 5th and 95th percentiles, while the red line shows the magnitude of our "true" estimated coefficient (from the first column of Table 1), which lies clearly to the right of more than 95% of the placebo coefficients.

Appendix Table A5 reports the results from our main specification for different subgroups. Column (1) replicates the first column of Table 1 (for comparison). In column (2), we restrict the sample to the subgroup of children where we expect higher participation in paternity leave, based on parental characteristics ("compliers").[39] As expected, our estimated effects are larger in this group. Columns (3) and (4) estimate equation (2) separately by gender of the child. We find that the effect is larger for boys.[40] Columns (5) and (6) report the results for the subsamples of first-born children and children with high-educated parents. The coefficient of interest is smaller in those subgroups.

We next show the effects separately for the three sets of variables that are included in our global index: gender attitudes (Table 2), children's own beliefs (Table 3), and

[38] Appendix Table A4 shows the results from alternative empirical specifications (an RD and an RD-DiD). The results are roughly consistent (sizeable positive effects in the first wave that fade out in the second wave).

[39] González and Zoabi (2026) show that the 2007 reform had more "bite" in "intermediate" couples, defined based on the gender gap in parental potential earnings (which they proxy with the difference in age and education between the parents). We don't observe parental age, so we create the "intermediate" group based on the difference in parental education (we drop children whose father is more educated that the mother, and those whose mother is more educated than the father, and define the intermediate group as children whose parents have the same level of education).

[40] This result aligns with our pre-registered hypotheses.

children's perceptions of the prevailing social norm (Table 4). We estimate the same five specifications as in Table 1.

Our estimated effects on ***gender attitudes***, presented in Table 2, are very similar to those for the global index. Treated children report significantly more egalitarian attitudes about gender roles in the first wave, with an effect size of about 19% of a standard deviation. The estimated effect is not significantly different from zero in the second wave.[41] Figure 4 shows the estimates (coefficients and confidence intervals) by wave for the gender attitudes index as well as for each individual item entering the index (standardized). The coefficients are positive for all seven items in the first wave (blue dots), leading to the overall positive and significant coefficient when we combine them in the index. In the second wave (orange dots), four coefficients are positive and three are negative, with no clear pattern.

The results for children's own ***beliefs*** regarding maternal and paternal employment are shown in Table 3, Panels A and B, respectively. According to our baseline specification (column 1 of Panel A), in the first wave children born after the reform are 6.5 percentage points more likely to report that a mother should work while she has a child under school age (for a baseline of 73.5%), while the effect is essentially zero in the second wave. The coefficient is unchanged in magnitude across the different specifications (it more than doubles in size when restricting the sample to the schools visited in both waves), but imprecisely estimated. Effects on beliefs about fathers' employment are small and insignificant in both waves (Panel B). The lack of an effect for fathers may be due to ceiling effects, since 96% of the children in the control group report that fathers should work less than full-time, i.e., there was limited room for further increase.[42]

The results for ***social norms*** can be found in Table 4. Treated children are significantly more likely to perceive that it's socially acceptable for mothers to work (Panel A). The magnitude of the effect is about 9 percentage points in the full sample (from a baseline of 64%), and it changes very little across specifications. The overall

[41] The results are very similar when we add the two extra attitudes variables that were not included in the pilot schools to construct the index (see Appendix Table C1).

[42] Appendix Table C2 shows the results for the additional variable that asks about mothers' and fathers' employment jointly. We find some evidence that treated children are less likely to opt for the father working full-time while the mother stays home, and more likely to select father full-time and mother part-time.

effect is again driven by the first wave, where we observe an increase by 15 percentage points, while the estimated effect is very close to zero in the second wave. Turning to the results for the social norm about fathers (Table 4, Panel B), we find that treated children are 10 percentage points more likely to perceive that it's socially acceptable for a father to work less than full-time (in the full sample). The effect is again driven by the first wave (17 percentage points). Note that in the case of social norms about paternal employment, the baseline level is much lower than children's own beliefs: only 52% of children in the control group perceive that it is socially acceptable for a father to work less than full-time, while 96% individually support it. Once again, the estimated effect is very close to zero in the second wave.

Our results consistently suggest that children whose fathers were eligible for paternity leave hold more egalitarian gender attitudes and beliefs in early adolescence, relative to the children of ineligible fathers attending the same school and grade. We find stronger effects for perceived social norms than for children's own beliefs. These effects are harder to detect towards the end of adolescence, possibly because peer effects and broader societal trends become more influential as children age, which would drive control and treated children closer to each other.

To put our findings into perspective, we compare our results to those in three recent studies on horizontal socialization mechanisms. Dhar et al. (2021) find that a school-based randomized intervention in India that engaged adolescents in classroom discussions about gender equality for two and a half years increased counter-stereotypical gender attitudes of 17-year-olds by 0.18 standard deviations. Studying the impact of classroom composition on the gender role attitudes of 15-year-olds in Vietnamese schools, Garcia-Brazales (2026) finds that a 10-percentage point increase in the proportion of female classmates decreases traditional views by about 0.15 standard deviations. Hara and Rodriguez Planas (2025) show that a curricular change which eliminated gender-segregated and gender normative classes in Japanese junior high schools led to long-term behavioral changes, such as increasing men's engagement in counter-stereotypical activities. Our study is thus consistent with a recent literature showing that gender role attitudes among adolescents are amenable to change. Notably, while this literature focuses on interventions directly targeting adolescents' school environment, we show that a policy affecting gender equality experienced at home is powerful enough to shape

gender attitudes in early adolescence, even though horizontal socialization mechanisms appear to dominate by late adolescence.

5.2 Behaviors, expectations and aspirations

We next present the results for behaviors, expectations and aspirations. In Table 5, we report the effect of paternity leave exposure on children's behaviors, focusing on their reported ***contribution to household chores***. We find that treated children are significantly more likely to report helping with counter-stereotypical tasks (repairs and shopping for girls; cleaning, cooking and laundry for boys) compared with control children, by about 0.2 standard deviations in the full sample (Panel A). We also estimate this specification by gender, and find that the effect is significant for both boys (0.216, p-value 0.048 in the baseline specification) and girls (0.174, p-value 0.071). Panel B of Table 5 shows that the overall effect is sizeable and significant in the first wave (0.23 standard deviations), and remains positive and (marginally) significant in the second wave (0.17 standard deviations). To understand which tasks are driving this effect, Figure 5 shows the coefficients from estimating equation (2) by gender for each chore. We find that treated boys report doing more cleaning (a female task) and less shopping (a male task) in both waves, while treated girls report doing less cleaning (a female task) and more repairs (a male task) in the first wave.

Table 6 shows the results for children's ***expectations and aspirations*** regarding their future work and family life, separately for boys and girls (Panels A and B). Beginning with children's fertility intentions, measured by whether a child expects to have children of their own (column 1), we find no significant effects, neither for boys nor for girls, and neither in the pooled sample nor by wave.[43] Turning to children's work intentions, measured by an indicator for children who see themselves working full time when they have children, we observe a gendered pattern (column 2). In the first wave, treated boys are 19 percentage points less likely to see themselves as full-time working fathers (this effect is much reduced in the second wave). For girls, the coefficient is positive (but smaller and not significantly different from zero). These results are consistent with treated children (especially boys) holding less gender-stereotypical

[43] Abstracting from precision, we observe a negative coefficient for boys and a positive one for girls. The direction of the effects aligns well with the findings in Farré and González (2019), who provide evidence suggesting that paternity leave may have reduced desired fertility for men (and increased it for women).

expectations about their own future work and family life. Children's occupational aspirations are largely unaffected by paternal eligibility for paternity leave (columns 3 and 4). Treated children are no more likely to express a preference for a counter-stereotypical occupation, and we also find no effect on boys' or girls' interest in a STEM occupation.

5.3 Human capital development

If paternity leave increased fathers' involvement in childcare (see section 6), the extra parental time may have fostered children's human capital development. We first examine this hypothesis with our own survey data, using the children's performance in a math task (in the context of an incentivized game to elicit children's willingness to compete, following Niederle and Vesterlund, 2007). This game was only included in our first wave of data collection, so that we can only estimate these effects at the onset of adolescence. Estimating equation 1 using children's combined performance in the three rounds of the math task yields effects that are not significantly different from zero (see Table A6). We also find no significant effects on our measures of children's willingness to compete, risk aversion, self-confidence (about their own math performance), or beliefs about the gender of the top and bottom performers.

We can also test for any effects of paternity leave on educational outcomes with other data sources. Table A7 shows the results from estimating equation (1) using Catalan administrative data on children's standardized test scores in multiple subjects in 6th and 10th grade.[44] In 6th grade, we find no effect on math, Catalan, or English test scores, and only some evidence of positive impacts on children's performance in Spanish and Science (columns 1–5). These positive effects are not found in 10th grade. We also find no effect on children's likelihood of attending (non-compulsory) academic high school (column 6), or on the fraction choosing a STEM track in high school (column 7). Overall, we conclude that exposure to paternity leave did not have detectable effects on children's academic achievement.

[44] We obtained data for children born in 2006 and 2007, so in these specifications we only use 2006 as the control cohort.

6. Mechanisms

6.1 Fathers' contribution to childcare and household chores

Paternity leave was only two weeks, taken shortly after childbirth. For the policy to have affected children's attitudes and behaviors in adolescence, it would need to have influenced parental behaviors well beyond the first few weeks or months of the child's life. There are several reasons why this may have happened. First, fathers exposed to paternity leave spent more time with their infant child, which may have strengthened their attachment to the child through biological mechanisms (Rilling and Mascaro 2017, Hrdy 2026), increasing their preference for caregiving in the subsequent months and years. Second, the policy may have affected the intra-household bargaining over the division of labor. González and Zoabi (2026) show (in a collective model of the household) that paternity leave can lead (some) couples to share housework and childcare more equally (specialize less), beyond the leave period itself. One can also think of potential additional channels related to human capital (learning).

We provide empirical evidence that paternity leave affected fathers' behavior persistently using several data sources that cover the course of childhood up to adolescence. We exploit several existing surveys that include mothers and fathers of children born between 2006 and 2008, and examine potential effects of exposure to paternity leave on their reported contribution to childcare and housework (see Section 4.2 for details on each survey). The results are shown in Table A8.

Panel A summarizes our main results from estimating equation (1) with each of the data sets. We find that paternity leave increased fathers' childcare and housework time by about an hour per day when the children were 2-3 (in the Time-Use Survey of 2009-10). By 2018, when the treated children were about 11, treated fathers report 0.3 standard deviations higher contribution to childcare and housework tasks (in the Fertility Survey of 2018). In our Ipsos survey of 2020, we find that treated fathers report spending 5.5 more hours per week on childcare and housework. Finally, in our online survey of 2020, treated fathers contribute on average 0.2 standard deviations more to six housework and childcare tasks.

The remaining panels of Table A8 present the full results for each data set. Panel B shows the full results using the ***Spanish Time-Use Survey of 2009-10***. The children of interest were two to three years old at the time of this survey. We show the results for minutes spent on childcare, housework and paid work, separately for fathers and mothers.

Fathers eligible for paternity leave report spending 64 more minutes per day on childcare and housework combined (27 and 37 minutes, respectively). Given the small sample size, the effect is only marginally significant. At the same time, fathers report working 55 minutes less per day, an effect that is however not statistically significant. We also find no statistically significant effects on mothers' time-use, although treated women report spending 35 minutes less in childcare and housework, while spending 49 more minutes per day in paid work.

We next turn to the results based on the ***Spanish Fertility Survey of 2018***, shown in Table A8, Panel C. The children of interest were eleven years old at the time of this survey. Paternity leave exposure leads fathers to become the primary caregiver in 0.5 additional activities (out of ten), a 17% increase (Panel C1, column 1). The estimated effect is positive for all childcare activities, and statistically significant for five: preparing food, doing the laundry, playing with the child, handling bedtime, and helping with homework.[45]

Panels D and E of Table A8 report results using data from our two ***online surveys*** conducted in 2020, when our children of interest where about 13 years old. Fathers eligible for paternity leave spend, on average, five more hours per week on domestic chores (see Panel D, column 3). In fact, treated fathers are significantly more likely to be responsible for domestic chores, with the largest effects found for laundry and shopping (see Panel E). We do not find any significant effects for fathers' time devoted to childcare or paid work (Panel D).

The ***2023 SSEE survey***, conducted by the OECD, provides us with some additional insights on how children perceive the division of labor between their parents. At the time of the survey, children of interest (those born in 2007) were about 16 years old. The survey asks children which of their parents is mainly responsible for preparing meals, cleaning the house, and looking after the children (we group meals and cleaning into a single "chores" variable). Figure A2 plots the fraction of children who report that the father is mainly responsible for each task, by quarter of birth. Children born after the

[45] In Panel C2 of Table A8 we show the results of estimating equation 1 for paternity leave take-up and parental attitudes. We show that eligibility is significantly associated with take-up and length of paternity leave (columns 1 and 2). We also find that parents exposed to paternity leave report more counter-stereotypical attitudes about men (are more likely to agree that "For a man, the priority should be his family rather that his career").

introduction of paternity leave report higher paternal involvement compared with children born earlier in the year.

Taken together, our evidence, drawn from multiple independent data sources, is consistent with paternity leave eligibility increasing paternal involvement in housework and childcare activities, for years after the birth of the child. The effects span from one to sixteen years after childbirth, suggesting that the effect is persistent.

Our ***own school survey*** also includes some questions on children's perception of their parents' relative contribution to different domestic chores, as well as their relative participation in a number of activities with the child (see question 1 in Module VI of the questionnaire in Appendix B2). Regarding domestic chores, we create binary indicators for children who report their father mostly or always does each task.[46] We add up these five indicators and standardize the resulting variable, which we interpret as a measure of fathers' contribution to chores (as perceived by the child). Column 1 in Table 7 reports results from estimating equations (1) and (2) for fathers' contribution to household chores. We find very small and insignificant coefficients in both waves.[47] In column 2, the dependent variable is a standardized measure of the perceived relative participation of the father in different activities that involve the child.[48] We actually find a negative and significant coefficient in the first wave, suggesting that treated children do not spend more time with their father at age 12.[49]

How can we reconcile the evidence on children's reports of fathers' contribution to housework and childcare with the positive effect on children's gender attitudes and beliefs (and the findings in the other data sources)? We consider several explanations, which are not mutually exclusive, to be the most plausible. First, our school-survey measures capture whether the father is the *main* person responsible for a given task, a

[46] Household chores include: cleaning, laundry, cooking, shopping, and repairs. Childcare tasks include: helping with homework, talking with the child about their problems, asking about the day, and being present at home after school, at dinner time, when the child is sick, and during weekends.
[47] Appendix Figure C1 (Panel A) shows the results for each task (by gender of the child). All coefficients are small and not statistically different from zero.
[48] These activities include: helping with homework, talking with the child about their problems, asking about their day, and being present at home after school, at dinner time, when the child is sick, and during weekends.
[49] Appendix Figure C1 (Panel B) shows the results for each childcare activity separately (by gender of the child). The only significant coefficient indicates that the fathers of treated girls are less likely to be home when the child comes back from school.

relative, threshold-based measure, whereas paternity leave may induce absolute changes in fathers' time use and task participation. If mothers' involvement also increased over this period, consistent with broader societal trends (Altintas and Sullivan, 2016), fathers could have meaningfully increased their absolute (or even relative) contribution without ever crossing the threshold of becoming the primary responsible parent. Second, our school-survey items of parental involvement rely on categorical indicators, which are considerably less sensitive to incremental changes than the continuous time use and participation measures available in some of our other data sources. Third, children's gender attitudes plausibly respond to the broader experience of having an engaged father, in terms of their observed participation in a wider range of caregiving and household tasks, rather than specifically to a discrete shift in which parent is perceived as primarily "in charge". Attitude formation may thus be responsive to margins of paternal involvement that our threshold-based school-survey measures cannot capture.

6.2 Parental labor supply, separation, and subsequent fertility

We also examine whether the introduction of paternity leave affected other household outcomes, such as parental employment, parental separation, and subsequent fertility. Any effects on these outcomes could mediate the effects on children's attitudes and beliefs. We first rely on our own school survey and estimate equations (1) and (2) using an indicator for maternal and paternal employment as an outcome. The results are presented in Table 7. The coefficients for maternal employment are very close to zero in both waves (column 3), and so are the ones for father's employment (column 4). We also find no significant effects on parental separation (column 5) or the likelihood of having a younger sibling (column 6).

Farré and González (2019) found small negative effects of the same policy on subsequent fertility for affected parents. This is consistent with our small (insignificant) negative effect on the likelihood of having any younger siblings. Our interpretation is that the small reduction in the number of younger siblings is unlikely to drive our estimated effects on gender attitudes and beliefs.

We draw on additional data sources to validate the (lack of) effects on parental labor market outcomes. Using data from the Labor Force Survey, we estimate equation (1) for maternal and paternal employment as well as weekly working hours separately by age of the child. The results are displayed in Figure A3. For mothers (Panel A), we find that exposure to paternity leave may have increased employment in the first year after

childbirth (consistent with the findings in Farré and González, 2019 and González and Zoabi, 2026). The coefficients, however, become small and indistinguishable from zero in later years.[50] For fathers (Panel B), none of the employment coefficients are significant.[51] At age 12 (when the first wave of our school survey takes place), treated and control mothers and fathers have very similar employment rates, so that we can plausibly rule out effects on parental employment as a mechanism.[52]

7. Conclusions

We study the effect of the introduction of paternity leave in Spain in 2007 on children's gender attitudes, beliefs, behaviors and expectations. We combine our own in-school targeted survey with a within-school difference-in-differences strategy exploiting the fact that policy eligibility was determined by date of birth. We find that children directly exposed to paternity leave display more gender egalitarian attitudes and beliefs in early adolescence. They are also more likely to contribute to counter-stereotypical household chores, and they report more counter-stereotypical expectations about their future work-family balance. We provide evidence from additional data sources that paternity leave eligibility led fathers to devote more time to childcare and housework years after the leave period was over. We argue that children's exposure to less gender-stereotypical behaviors at home during childhood affected their attitude and belief formation.

By late adolescence, however, we no longer detect statistically significant differences between treated and control children. This result is consistent with existing evidence that parental influence weakens as children age, while the importance of peers and the social environment increases. Rather than viewing our findings as evidence against persistent effects, we interpret them as consistent with a broader process of social diffusion. Policies that successfully shift behaviors within families may change norms beyond the directly treated households, amplifying their long-run impact while simultaneously making that impact harder to identify empirically.

[50] For weekly hours, four out of 16 coefficients are significantly positive at the 95% confidence level (including age 0), while two are significantly negative.
[51] For hours, three out of 16 coefficients are significant at the 95% confidence level (negative at ages 4 and 10, positive at 13).
[52] The absence of long-term effects on parental employment outcomes is consistent with most of the findings in previous work (see for example Eckberg et al. 2013, Dahl et al. 2014, Cools et al. 2015, Farré and González 2019, Canaan et al. 2023, Andresen and Nix 2025).

Overall, our findings suggest that policies aimed at changing parents' behavior may have broader consequences than previously recognized. By reshaping the environment in which children grow up, paternity leave can contribute to the intergenerational transmission of more egalitarian gender norms and, through social diffusion, potentially extend these benefits beyond the families directly targeted by the policy.

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Tables and Figures

Table 1. The effect of paternity leave on children's attitudes and beliefs (global index)

	(1) Baseline	(2) Birthdate fixed effects	(3) Restricted sample	(4) Jan.-June sample	(5) Repeated schools
Panel A. Main effect (β_2)	0.103	0.110	0.060	0.116	0.072
	(0.080)	(0.079)	(0.087)	(0.086)	(0.138)
Panel B. By wave					
First wave effect (δ_5)	0.236**	0.236***	0.220**	0.256*	0.202
	(0.091)	(0.087)	(0.103)	(0.135)	(0.145)
Second wave interaction (δ_6)	-0.287*	-0.270*	-0.337**	-0.284*	-0.222
	(0.149)	(0.148)	(0.157)	(0.165)	(0.165)
Second wave effect ($\delta_5+\delta_6$)	-0.050	-0.034	-0.116	-0.027	-0.019
	(0.117)	(0.119)	(0.118)	(0.096)	(0.098)
N	2,751	2,749	2,515	1,309	746

Note: Panel A reports the coefficients of interest estimated from equation (1), while Panel B reports the coefficients of interest estimated from equation (2). Within each panel, each column reports the results from a different regression. The sample includes all children in our school survey with non-missing information on the five main outcomes. The dependent variable is an index (the standardized first component of a principal components decomposition) that combines our five main outcomes. The five outcomes are: an index of individual attitudes (combining 7 questions), two measures of beliefs, and two measures of perceived social norms (about mothers' and fathers' roles). Panel A (and the first row of Panel B) shows the coefficient on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The second row of the second panel shows the coefficient for the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and an indicator for our second survey wave (*Wave*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). . In column 2 we also include fixed effects for (grouped) date of birth ("Birthdate fixed effects"). In column 3 we restrict the sample to children born in Spain in years 2006-2008. In column 4 we restrict the sample to children born in January to June. In column 5 we restrict the sample to the schools that were surveyed in both waves. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table 2. The effect of paternity leave on children's gender attitudes (index)

	(1) Baseline	(2) Birthdate fixed effects	(3) Restricted sample	(4) Jan.-June sample	(5) Repeated schools
Panel A. Main effect (β_2)	0.102	0.098	0.091	0.079	0.157
	(0.066)	(0.068)	(0.067)	(0.086)	(0.098)
Panel B. By wave					
First wave effect (δ_5)	0.188**	0.187**	0.188**	0.210**	0.327***
	(0.080)	(0.082)	(0.078)	(0.103)	(0.099)
Second wave interaction (δ_6)	-0.243**	-0.248**	-0.268**	-0.349**	-0.299*
	(0.116)	(0.118)	(0.114)	(0.153)	(0.142)
Second wave effect ($\delta_5+\delta_6$)	-0.055	-0.060	-0.079	-0.139	0.028
	(0.087)	(0.089)	(0.086)	(0.116)	(0.111)
N	3,729	3,727	3,420	1,781	1,050

Note: Panel A reports the coefficients of interest estimated from equation (1), while Panel B reports the coefficients of interest estimated from equation (2). Within each panel, each column reports the results from a different regression. The sample includes all children in our school survey (with non-missing information on the seven attitudes questions). The dependent variable is an index that combines seven questions about individual gender attitudes (the index is the standardized first component of a principal components decomposition). Panel A (and the first row of Panel B) shows the coefficient on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The second row of the second panel shows the coefficient for the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and an indicator for our second survey wave (*Wave*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). In column 2 we also include fixed effects for (grouped) date of birth ("Birthdate fixed effects"). In column 3 we restrict the sample to children born in Spain in years 2006-2008. In column 4 we restrict the sample to children born in January to June. In column 5 we restrict the sample to the schools that were surveyed in both waves. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table 3. The effect of paternity leave on children's beliefs

Panel A. Beliefs about maternal employment

	(1) Baseline	(2) Birthdate FE	(3) Restricted sample	(4) Jan-June sample	(5) Repeated schools
Main effect (β_2)	0.036	0.042	0.025	0.044	0.070
	(0.031)	(0.030)	(0.033)	(0.033)	(0.055)
By wave					
First wave effect (δ_5)	0.065*	0.071*	0.068	0.068	0.162*
	(0.038)	(0.037)	(0.041)	(0.048)	(0.072)
Second wave interaction (δ_6)	-0.079	-0.077	-0.116*	-0.061	-0.172*
	(0.059)	(0.060)	(0.062)	(0.061)	(0.091)
Second wave effect ($\delta_5+\delta_6$)	-0.013	-0.005	-0.046	0.006	-0.009
	(0.045)	(0.046)	(0.046)	(0.037)	(0.047)
Mean control	0.735	0.735	0.731	0.735	0.673
N	3,411	3,409	3,142	1,626	944

Panel B. Beliefs about paternal employment

	(1) Baseline	(2) Birthdate FE	(3) Restricted sample	(4) Jan-June sample	(5) Repeated schools
Main effect (β_2)	-0.025	-0.024	-0.025	-0.022	-0.027
	(0.024)	(0.023)	(0.023)	(0.028)	(0.033)
By wave					
First wave effect (δ_5)	-0.016	-0.013	-0.010	-0.007	-0.026
	(0.029)	(0.028)	(0.028)	(0.035)	(0.027)
Second wave interaction (δ_6)	-0.025	-0.028	-0.043	-0.040	0.012
	(0.046)	(0.046)	(0.045)	(0.051)	(0.059)
Second wave effect ($\delta_5+\delta_6$)	-0.041	-0.042	-0.053	-0.047	-0.013
	(0.037)	(0.037)	(0.036)	(0.037)	(0.053)
Mean control	0.964	0.964	0.963	0.964	0.979
N	3,406	3,404	3,132	1,626	942

Note: The dependent variable in Panel A is an indicator taking value 1 if the child reports that a mother should work (part-time or full-time) when she has a child under school age. The dependent variable in Panel B is an indicator taking value 1 if the child reports that a father should work part-time or not at all when he has a child under school age. The sample includes all children in our school survey with valid information on beliefs about parental employment. Each column reports the results from a different regression. In each panel, "Main effect (β_2)" reports the OLS estimate of equation (1) corresponding to the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). "First wave effect (δ_5)" reports the OLS estimate of equation (2) corresponding to the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). "Second wave interaction (δ_6)" reports OLS estimate of equation (2) corresponding to the triple interaction. All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). In column 2 we also include fixed effects for (grouped) date of birth ("Birthdate fixed effects"). In column 3 we restrict the sample to children born in Spain in years 2006-2008. In column 4 we restrict the sample to children born in January to June. In column 5 we restrict the sample to the schools that were surveyed in both waves. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table 4. The effect of paternity leave on children's perception of social norms

Panel A. Perception of social norms about maternal employment

	(1) Baseline	(2) Birthdate FE	(3) Restricted sample	(4) Jan-June sample	(5) Repeated schools
Main effect (β_2)	0.090**	0.094**	0.083**	0.094**	0.067
	(0.035)	(0.036)	(0.038)	(0.040)	(0.057)
First wave effect (δ_5)	0.149***	0.153***	0.145***	0.143**	0.144*
	(0.044)	(0.045)	(0.048)	(0.056)	(0.065)
Second wave interaction (δ_6)	-0.145**	-0.146**	-0.154**	-0.116	-0.136
	(0.068)	(0.070)	(0.075)	(0.082)	(0.079)
Second wave effect ($\delta_5+\delta_6$)	0.004	0.007	-0.008	0.027	0.008
	(0.050)	(0.052)	(0.056)	(0.057)	(0.056)
Mean control	0.639	0.639	0.636	0.639	0.585
N	3,324	3,322	3,039	1,591	909

Panel B. Perception of social norms about paternal employment

	(1) Baseline	(2) Birthdate FE	(3) Restricted sample	(4) Jan-June sample	(5) Repeated schools
Main effect (β_2)	0.103**	0.106**	0.099**	0.129**	0.106
	(0.047)	(0.049)	(0.046)	(0.052)	(0.072)
First wave effect (δ_5)	0.171***	0.173***	0.157**	0.195**	0.319***
	(0.060)	(0.063)	(0.062)	(0.077)	(0.041)
Second wave interaction (δ_6)	-0.150	-0.149	-0.127	-0.141	-0.335***
	(0.090)	(0.091)	(0.087)	(0.097)	(0.060)
Second wave effect ($\delta_5+\delta_6$)	0.021	0.024	0.0304	0.054	-0.016
	(0.067)	(0.065)	(0.060)	(0.058)	(0.044)
Mean control	0.529	0.529	0.536	0.529	0.477
N	3,056	3,054	2,781	1,454	838

Note: The dependent variable in Panel A is an indicator taking value 1 if the child coordinates on it being socially appropriate for a mother to work (part-time or full-time) when she has a child under school age (incentivized question). The dependent variable in Panel B is an indicator taking value 1 if the child coordinates on it being socially appropriate for a father to work part-time or not at all when he has a child under school age (incentivized). The sample includes all children in our school survey with valid information on perceptions of social norms about parental employment. Each column reports the results from a different regression. In each panel, "Main effect (β_2)" reports the OLS estimate of equation (1) corresponding to the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). "First wave effect (δ_5)" reports the OLS estimate of equation (2) corresponding to the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). "Second wave interaction (δ_6)" reports OLS estimate of equation (2) corresponding to the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and an indicator for our second survey wave (*Wave2*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). In column 2 we also include fixed effects for grouped date of birth. In column 3 we restrict the sample to children born in Spain in years 2006-2008. In column 4 we restrict the sample to children born in January to June. In column 5 we restrict the sample to the schools that were surveyed in both waves. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table 5. The effect of paternity leave on children's behaviors (contribution to counter-stereotypical household chores)

	(1) Baseline	(2) Birthdate FE	(3) Restricted sample	(4) Jan-June sample	(5) Repeated schools
Panel A. Main effect (β_2)	0.209***	0.202***	0.241***	0.247**	0.347**
	(0.058)	(0.059)	(0.064)	(0.096)	(0.121)
Panel B. By wave					
First wave effect (δ_5)	0.228***	0.225***	0.247***	0.248*	0.457***
	(0.074)	(0.078)	(0.079)	(0.127)	(0.042)
Second wave interaction (δ_6)	-0.051	-0.060	-0.016	-0.005	-0.209
	(0.115)	(0.118)	(0.124)	(0.193)	(0.172)
Second wave effect ($\delta_5+\delta_6$)	0.177*	0.165*	0.230**	0.242	0.248
	(0.089)	(0.085)	(0.100)	(0.144)	(0.174)
Mean control	0	0	0.269	0	
N	3,292	3,291	3,013	1,575	897

Note: Panel A reports the coefficients of interest estimated from equation (1), while Panel B reports the coefficients of interest estimated from equation (2). Within each panel, each column reports the results from a different regression. The sample includes all children in our school survey with non-missing information on the five household chores variables. The dependent variable is a (standardized) index that combines the five questions on children's contributions to household chores (cleaning, laundry, cooking, shopping and repairs). We create 5 dummies indicating that a child contributes to a given chore sometimes or each week (versus rarely or never). For girls, we add up the dummies for repairs and grocery shopping (which are more common among boys in the control group), and subtract the ones for cleaning, laundry and cooking (more common among girls). For boys, we add up the dummies for cleaning, laundry and cooking, and subtract the ones for repairs and shopping. Panel A (and the first row of Panel B) shows the coefficient on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The second row of the second panel shows the coefficient for the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and an indicator for our second survey wave (*Wave2*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). In column 2 we also include fixed effects for (grouped) date of birth ("Birthdate FE"). In column 3 we restrict the sample to children born in Spain in years 2006-2008. In column 4 we restrict the sample to children born in January to June. In column 5 we restrict the sample to the schools that were surveyed in both waves. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table 6. The effect of paternity leave on children's expectations and aspirations

Panel A. Boys

	(1) Fertility intentions	(2) Working FT & children	(3) Counter stereotypical occupation	(4) STEM occupation
Main effect (β_2)	-0.040	-0.092	-0.044	-0.042
	(0.070)	(0.061)	(0.036)	(0.054)
First wave effect (δ_5)	-0.067	-0.191**	-0.002	-0.037
	(0.083)	(0.072)	(0.034)	(0.061)
Second wave interaction (δ_6)	0.075	0.260*	-0.127	-0.015
	(0.143)	(0.129)	(0.083)	(0.121)
Second wave effect ($\delta_5+\delta_6$)	0.007	0.069	-0.129	-0.052
	(0.116)	(0.104)	(0.076)	(0.104)
Mean control	0.640	0.256	0.067	0.300
N	1,499	1,499	1,689	1,689

Panel B. Girls

	(1) Fertility intentions	(2) Working FT & children	(3) Counter stereotypical occupation	(4) STEM occupation
Main effect (β_2)	0.054	0.051	0.014	0.021
	(0.074)	(0.063)	(0.034)	(0.032)
First wave effect (δ_5)	0.081	0.105	0.033	0.038
	(0.098)	(0.065)	(0.041)	(0.038)
Second wave interaction (δ_6)	-0.059	-0.133	-0.057	-0.048
	(0.145)	(0.137)	(0.071)	(0.068)
Second wave effect ($\delta_5+\delta_6$)	0.022	-0.028	-0.023	-0.009
	(0.107)	(0.121)	(0.058)	(0.057)
Mean control	0.610	0.128	0.108	0.076
N	1,685	1,685	1,899	1,899

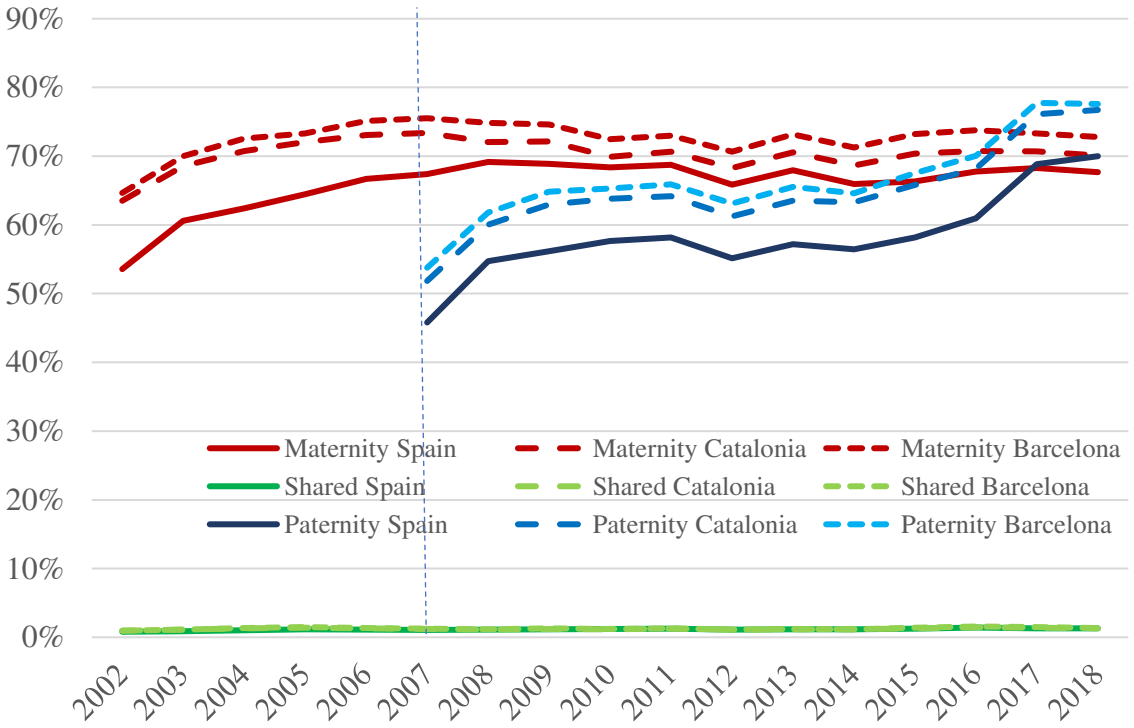
Note: Panel A reports the results for boys and Panel B for girls. Within each panel, each column reports the results from a different outcome: Column (1) is an indicator of whether the respondent expects to have children in 20 years' time; Column (2) is an indicator of whether the respondent expects to work full-time and having children in 20 years' time; Column (3) is an indicator of whether the chosen occupation is one of the three most popular occupations among the opposite sex; Column (4) is an indicator of whether the chosen occupation is Engineer or Computer Scientist. The sample includes all children in our school survey with valid information on expectations and aspirations. In each panel, "Main effect (β_2)" reports the OLS estimate of equation (1) corresponding to the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). "First wave effect (δ_5)" reports the OLS estimate of equation (2) corresponding to the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). "Second wave interaction (δ_6)" reports OLS estimate of equation (2) corresponding to the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31(*After*), and an indicator for our second survey wave (*Wave2*). In all columns the specification corresponds to that of Column (1) in Tables 1 to 5. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table 7. Mechanisms: Parental behaviors

	(1) Father chores	(2) Father time w.child	(3) Mother works	(4) Father works	(5) Living with both	(6) Younger sibling(s)
Panel A. Main effect (β_2)	0.010	-0.192**	0.007	0.009	0.007	-0.028
	(0.071)	(0.076)	(0.025)	(0.024)	(0.036)	(0.045)
Panel B. By wave						
First wave effect (δ_5)	0.018	-0.225**	0.009	-0.003	-0.028	-0.010
	(0.092)	(0.107)	(0.030)	(0.033)	(0.045)	(0.036)
Second wave interaction (δ_6)	-0.014	0.089	-0.008	0.032	0.097	-0.003
	(0.092)	(0.139)	(0.054)	(0.044)	(0.076)	(0.073)
Second wave effect ($\delta_5+\delta_6$)	0.004	-0.135	0.001	0.029	0.0693	-0.013
	(0.120)	(0.088)	(0.045)	(0.028)	(0.061)	(0.065)
Mean control	0.00	0.00	0.875	0.911	0.766	0.431
N	3,688	3,674	3,729	3,729	3,729	3,729

Note: Panel A reports the coefficients of interest estimated from equation (1), while Panel B reports the coefficients of interest estimated from equation (2). Within each panel, each column reports estimates for a different outcome. All the information about parental behaviors and other family outcomes is reported by the children. Parental participation in household chores (cleaning, cooking, grocery shopping, laundry, and small repairs) and time with the child (at home after school, at home when child is sick, at home for dinner, spends time on the weekends, helps with homework, asks how the day was, asks about problems) is reported by children in response to the question: *"At home, who does [task]?"* with possible answers: *always mother, mostly mother, both, mostly father, always father.* We create a dummy for each activity/chore if the father mostly or always does it. The outcome in Column (1), "Father chores", is the sum of the five dummy variables indicating whether the father was mainly responsible, and the outcome in Column (2), "Father time w. child", is the sum of the seven dummy variables for the childcare activities. "Mother works" and "Father works" are indicators for whether the mother or father is employed at the time of the survey. "Living with both parents" indicates whether the child lives with both parents, and "Younger sibling(s)" is an indicator for whether the family has additional children born after the respondent. The sample includes all children in our school survey with non-missing values for the information used to construct each outcome. Panel A (and the first row of Panel B) shows the coefficient on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The second row of the second panel shows the coefficient for the triple interaction of 2007-born children, birthdate between March 24 and December 31, and an indicator for our second survey wave (*TreatedCohortxAfterxWave2*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. In all columns the specification corresponds to that of Column (1) in Tables 1 to 5. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

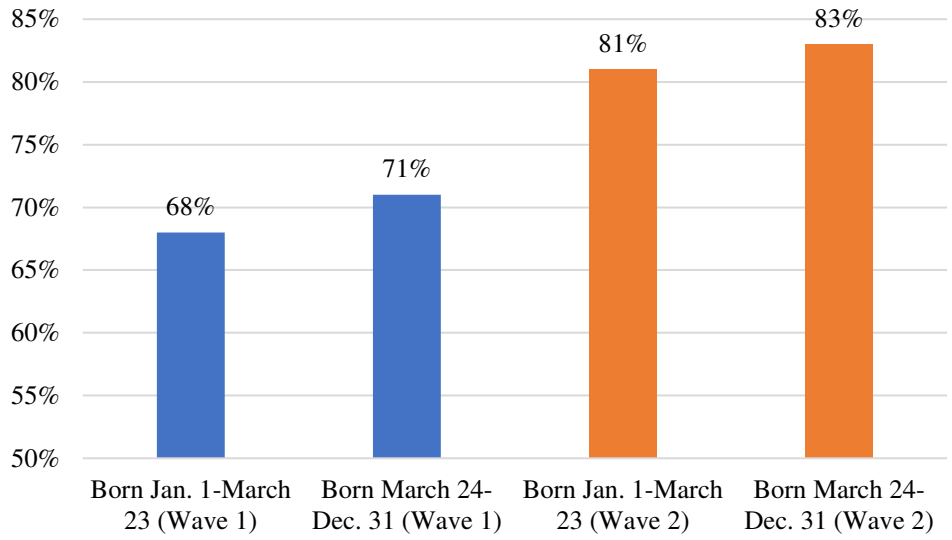
Figure 1. Participation rates in maternity and paternity leave in Spain, 2002-2018



Note: Annual participation rates are calculated as the number of benefits paid over the number of registered births. The grey-black lines refer to mothers who received paid maternity leave, the green lines show the number of fathers who used some of the transferable maternity leave, and the blue lines represents fathers on paternity leave (in 2007, the share only refers to fathers with childbirth on or after March 24). The dashed lines refer to the take-up rates in the province of Barcelona and Catalonia, while the solid lines are for the whole of Spain. Data on the number of benefits paid are from the administrative registers of the Spanish National Security System, while number of births come from the Spanish Statistical Institute (birth-certificate microdata).

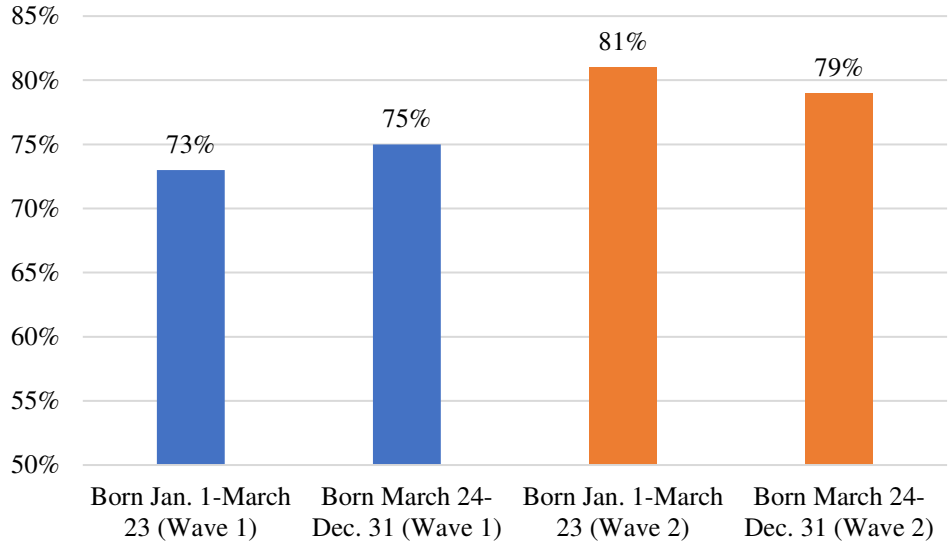
Figure 2. Gender attitudes and beliefs for children born before and after the cut-off date

A. Gender attitudes: A working mother can establish a good relationship with her child (% agree)



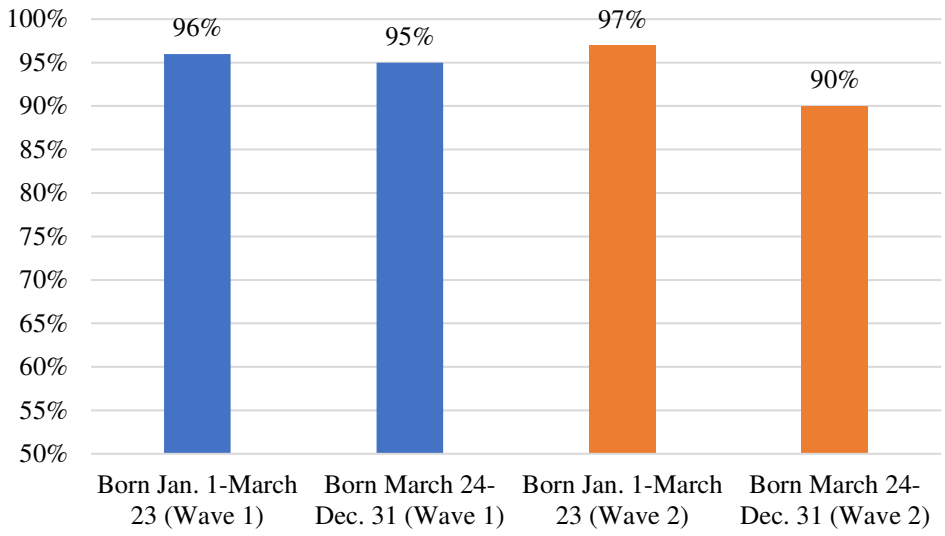
Note: The sample includes all children born in Spain in January-June of 2007 in our school survey. The question asks about agreement with the statement: "A working mother can have as good of a relationship with her children as a mother who does not work outside the home". "Strongly disagree" is coded as 0, "disagree" as 0.25, "neither agree nor disagree" as 0.5, "agree" as 0.75, and "strongly agree" as 1. We show raw averages by date of birth and wave.

B. Beliefs about mothers: A mother of a child under school age should work (% agree)



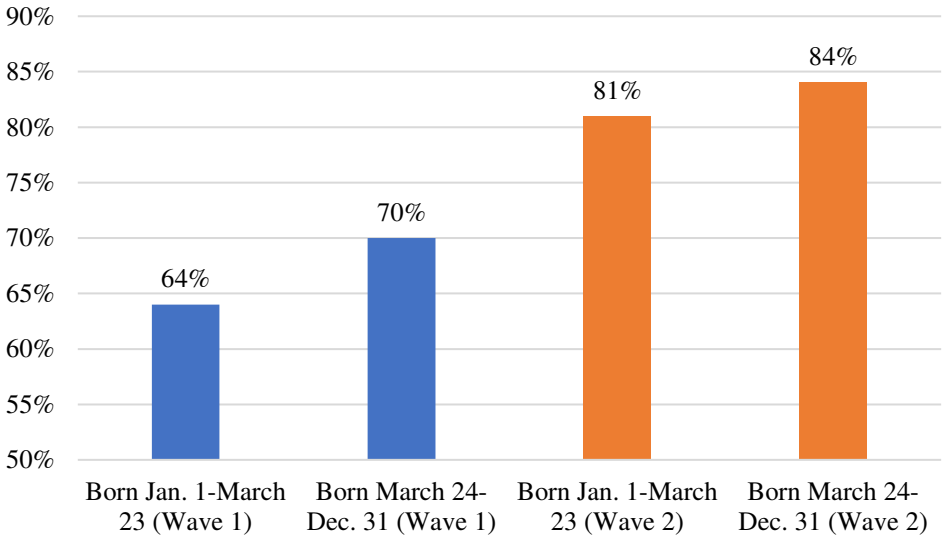
Note: The sample includes all children born in Spain in Jan.-June of 2007 in our school survey. The question asks: "Do you think that the mother should work full-time, part-time, or should not work when her child doesn't go to school yet (younger than 3)?" We show the percent of respondents who report that the mother should work (full- or part-time), by date of birth and wave.

C. Beliefs about fathers: A father of a child under school age should work less than full-time (% agree)



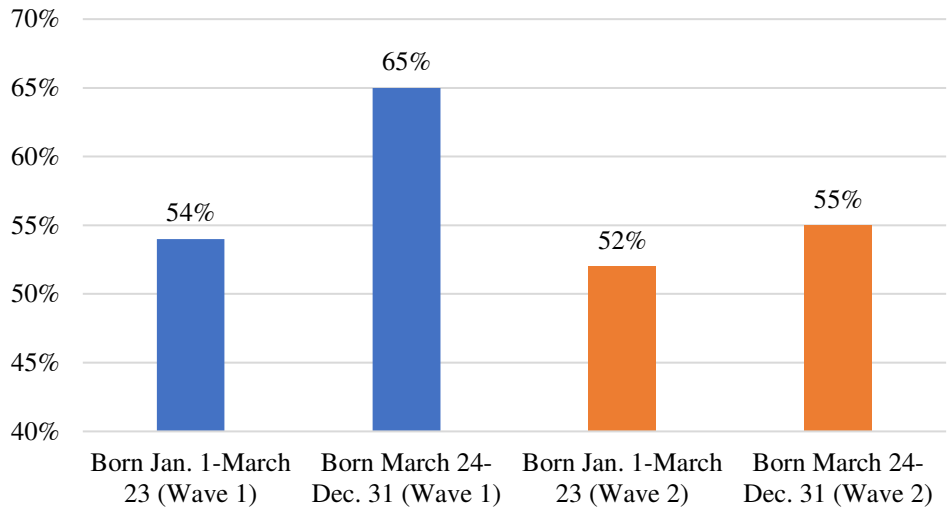
Note: The sample includes all children born in Spain in Jan.-June of 2007 in our school survey. The question asks: "Do you think that the father should work full-time, part-time, or should not work when his child doesn't go to school yet (younger than 3)?" We show the percent of respondents who report that the father should work less than full-time, by date of birth and wave.

D. Perception of social norms about mothers (% reporting it's socially appropriate for a mother with a child under school age to work)



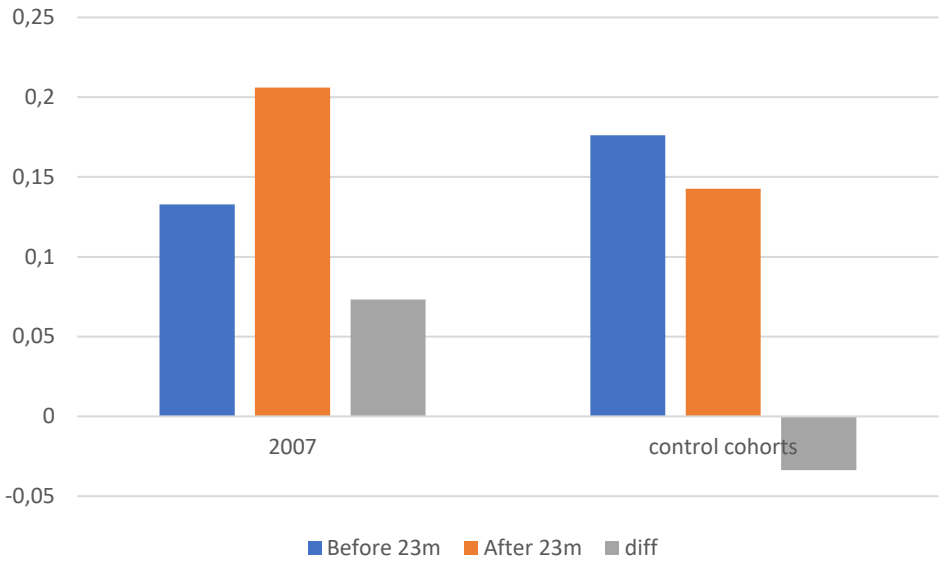
Note: The sample includes all children born in 2007 in our school survey. The (incentivized) question asks: "How socially appropriate is it for a mother to work full-time (part-time)?" We show the percent of respondents who report that it is appropriate or somewhat appropriate (full-time or part-time), by date of birth and wave.

E. Perception of social norms about fathers (% reporting it's socially appropriate for a father with a child under school age to work less than full-time)



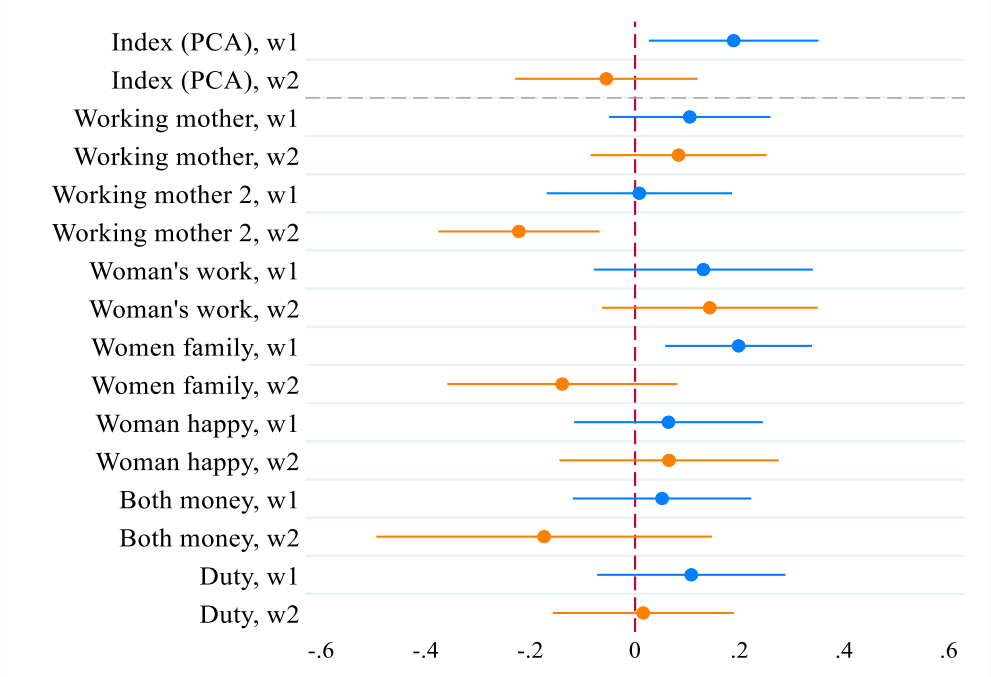
Note: The sample includes all children born in 2007 in our school survey. The (incentivized) question asks: "How socially appropriate is it for a father to work part-time (not work) to take care of his child?" We show the percent of respondents who report that it is appropriate for a father to work part-time or not work, by date of birth and wave.

Figure 3. Global index of attitudes and beliefs by date of birth



Note: The sample includes all children in our school survey (with non-missing information on the five components of the index). The global index is the (standardized) first component of a principal components decomposition that combines our five main outcomes (the attitudes index, the two measures of own beliefs about mothers and fathers, and the two variables capturing children's perceptions of the prevailing social norm about mothers and fathers). We show raw averages of the index by date of birth.

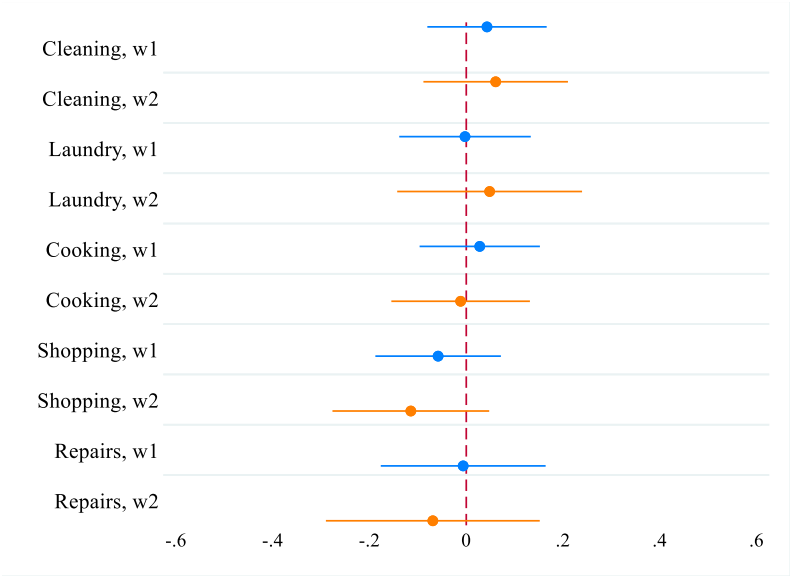
Figure 4. The effect of paternity leave on children's gender attitudes



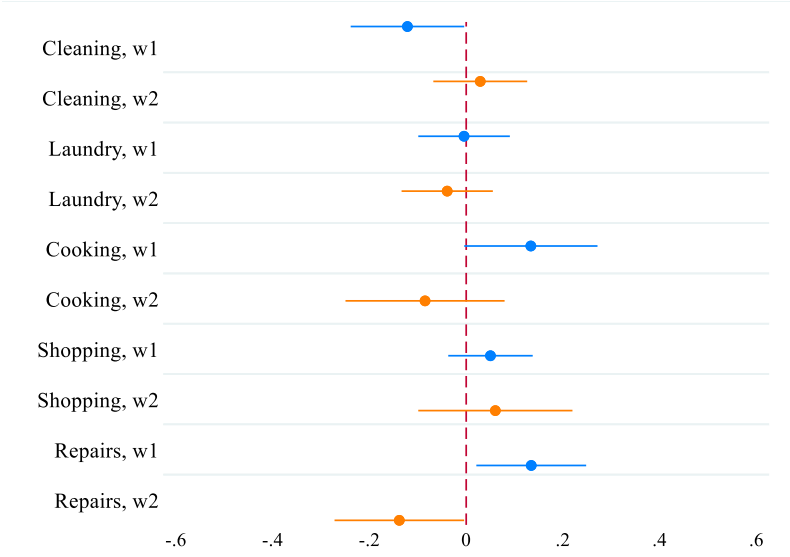
Note: Each pair of coefficients comes from a different regression. The sample includes all children in our school survey. The reported coefficients are for the triple interaction of the indicators for Cohort 2007 (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and the survey wave (1 and 2, respectively). The bars show 95% confidence intervals. Standard errors are clustered by school-grade. The dependent variables are seven questions about individual gender attitudes, and an index that combines all seven (the first component of a principal components decomposition). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 1, as well as school-visit fixed effects. We also control for the pairwise interactions between the 2007-born indicator and wave, as well as the interaction between the dummy for birthdate between March 24 and December 31 and wave. Additional controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators).

Figure 5. The effect of paternity leave on children's behaviors (household chores)

Panel A. Boys



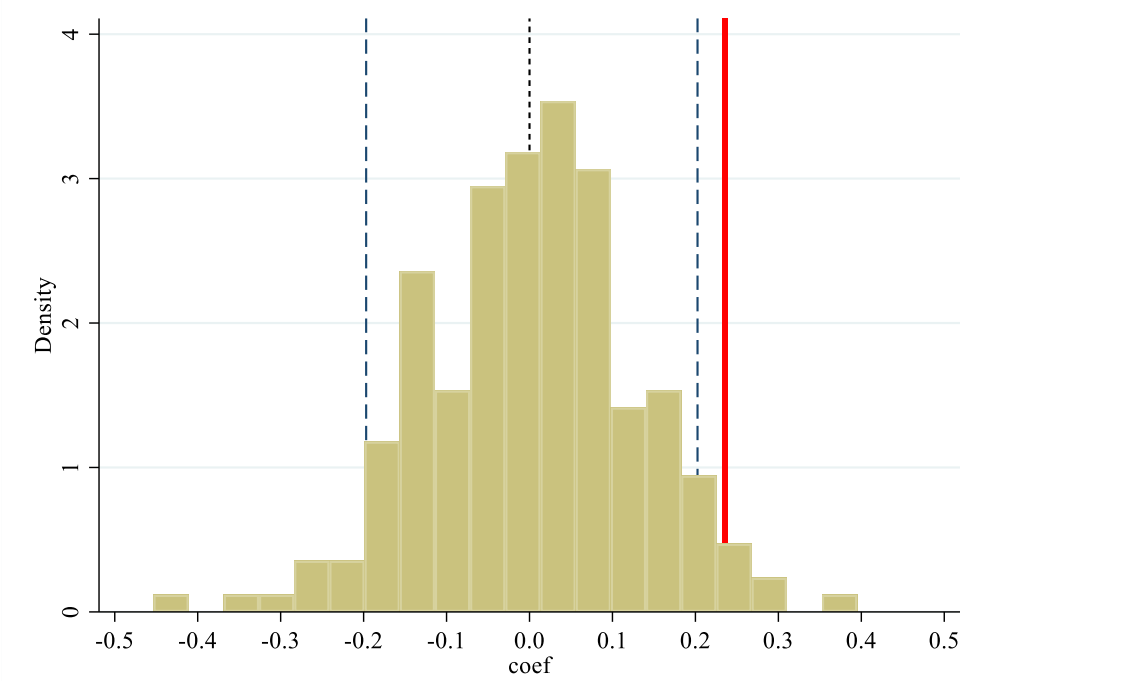
Panel B. Girls



Note: Each pair of coefficients comes from a different regression. The sample includes all children in our school survey (boys in Panel A, girls in Panel B). The reported coefficients are for the triple interaction of the indicators for Cohort 2007 (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and the survey wave (1 and 2, respectively). The bars show 95% confidence intervals. Standard errors are clustered by school-grade. The dependent variables are five indicators that take value 1 if the child contributes (often or weekly) to each chore. All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 1, as well as school-visit fixed effects. We also control for the pairwise interactions between the 2007-born indicator and wave, as well as the interaction between the dummy for birthdate between March 24 and December 31 and wave. Additional controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators).

Appendix A: Figures and Tables

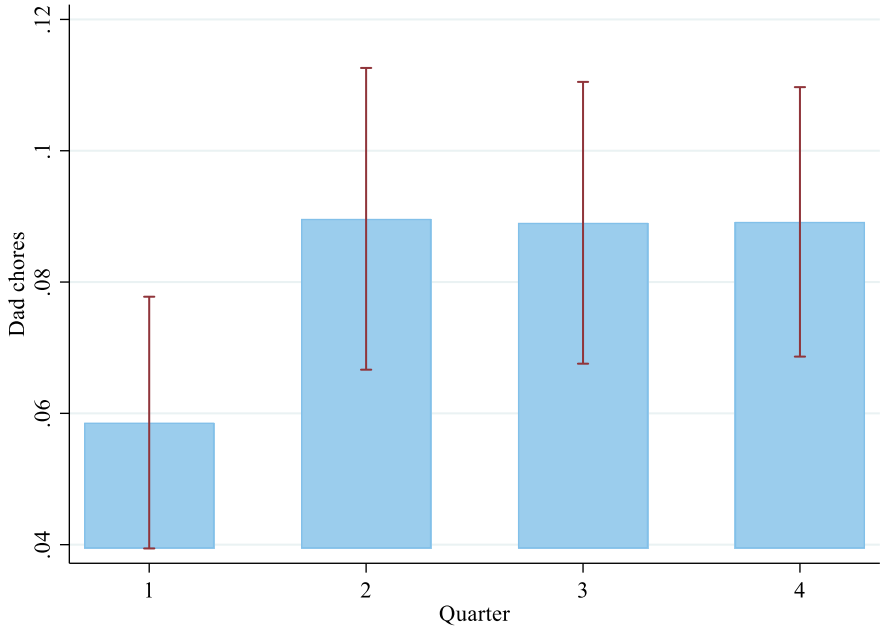
Figure A1. Placebo results (first wave effect on the global index of attitudes and beliefs)



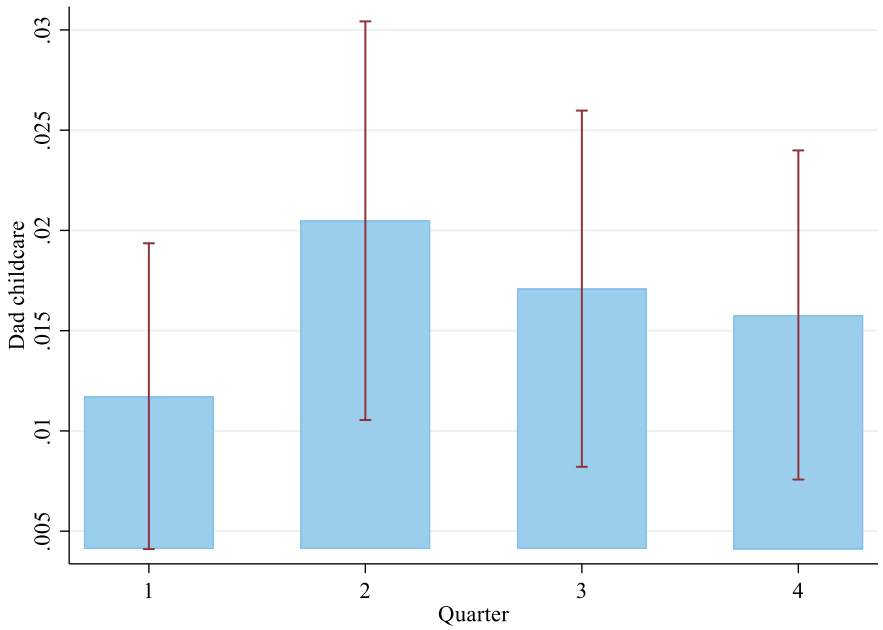
Note: The histogram illustrates the distribution of the coefficient of interest across 200 "placebo" specifications in which children's date of birth are reshuffled at random. The red vertical line shows the magnitude of the "true" estimated coefficient. The two dashed vertical lines show the 5th and 95th percentile of the distribution of placebo coefficients. The coefficients come from estimating equation (2). The sample includes all children in our school survey with non-missing information on the outcome variable. The dependent variable is an index (the standardized first component of a principal components decomposition) that combines our five main outcomes. The five outcomes are: an index of individual attitudes (combining 7 questions), two measures of beliefs, and two measures of perceived social norms (about mothers' and fathers' roles). The coefficient of interest is the one on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The specification includes year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators).

Figure A2. Fathers' household chores and childcare by date of birth of the child

Panel A. Chores: The father is mainly responsible for preparing meals and/or cleaning the house (fraction)



Panel B. Childcare: The father is mainly responsible for looking after the children (fraction)

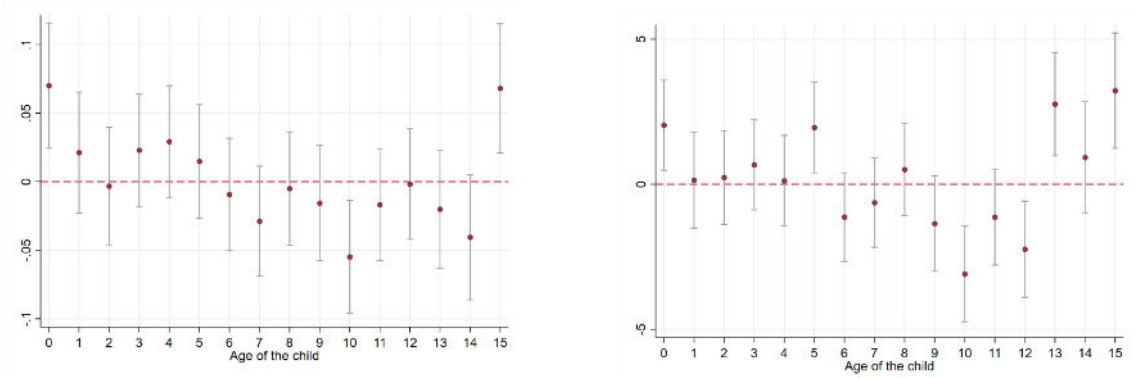


Note: The data come from the SSES 2023 survey (OECD). The sample includes 3,303 children born in 2007, living in Spain at the time of the survey. The figures show the fraction of children who report their father is mainly responsible for these tasks (vs. the mother, both equally, or none), by quarter of birth (and 95% confidence intervals).

Figure A3. The effect of paternity on parental labor market outcomes by age of the child

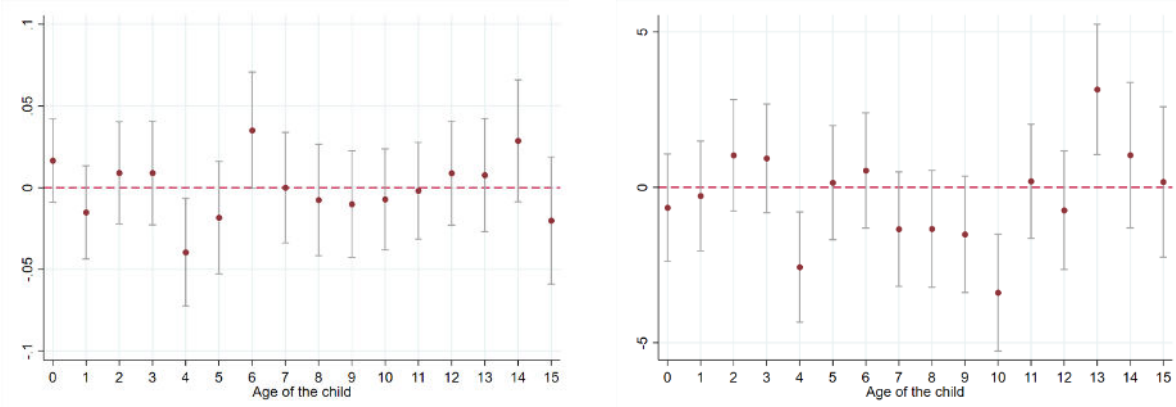
Panel A. Mothers

i. Work ***ii. Weekly hours of paid work***



Panel B. Fathers

i. Work ***ii. Weekly hours of paid work***



Note: Data come from the Spanish Labor Force Survey (EPA), 2006-2024. The analysis is restricted to respondents aged 24 to 50 with children born between January and June 2006, 2007, or 2008. Each point in the figures corresponds to the OLS estimate of the coefficient on the interaction term (*TreatedCohortxAfter*), obtained from separate regressions based on equation (1). All specifications include fixed effects for the child's birth cohort and month of birth. Each regression is estimated separately by the age of the child, as shown on the x-axis. Dots represent point estimates, and bars indicate 95% confidence intervals. Panels (a) and (c) show the effect of the reform on the probability of being employed for mothers and fathers, respectively. Employment is defined as having worked during the week prior to the interview. Panel (b) and (d) display the number of hours worked during the reference week, including zeros for non-employed respondents.

Table A1. Summary statistics main outcome variables and controls

	(1) First wave All	(2) Second wave All	(3) First wave Jan-March 2007	(4) Second wave Jan-March 2007
Panel A: Gender role attitudes				
"Agree" or "strongly agree" with:				
(a) A working mother can establish just as warm and secure relationship with her	0.682	0.796	0.680	0.800
children as a mother who does not work.	(0.281)	(0.244)	(0.896)	(0.243)
(b) Both men and women should contribute to the household income.	0.888	0.865	0.896	0.876
	(0.206)	(0.214)	(0.198)	(0.191)
"Disagree" or "strongly disagree" with:				
(c) A pre-school child is likely to suffer if his or her mother works.	0.448	0.603	0.442	0.638
	(0.278)	(0.264)	(0.277)	(0.269)
(d) All in all, family life suffers when the woman has a full-time job.	0.493	0.518	0.486	0.500
	(0.292)	(0.297)	(0.291)	(0.286)
(e) A job is all right, but what most women really want is a home and children.	0.526	0.729	0.543	0.775
	(0.293)	(0.254)	(0.305)	(0.236)
(f) Being a housewife is just as fulfilling as working for pay.	0.467	0.465	0.480	0.450
	(0.290)	(0.289)	(0.296)	(0.298)
(g) A man's job is to earn money and a woman's job is to look after the home and	0.902	0.905	0.918	0.908
family.	(0.198)	(0.181)	(0.176)	(0.165)
Gender role attitudes index	0.076	0.486	-0.039	0.569
	(0.980)	(0.958)	(0.970)	(0.892)
Number of observations	2,317	1,412	248	139
Panel B: Own beliefs				
A mother with a child below school age				
should not work.	0.265	0.232	0.265	0.207
	(0.441)	(0.422)	(0.443)	(0.207)
should work part-time.	0.702	0.726	0.708	0.770
	(0.458)	(0.446)	(0.456)	(0.422)
should work full-time.	0.033	0.042	0.026	0.022
	(0.180)	(0.200)	(0.161)	(0.148)
A father with a child below school age				
should not work.	0.143	0.127	0.151	0.135
	(0.350)	(0.333)	(0.359)	(0.343)
should work part-time.	0.798	0.797	0.813	0.823
	(0.402)	(0.403)	(0.391)	(0.380)
should work full-time.	0.059	0.076	0.036	0.038
	(0.236)	(0.266)	(0.186)	(0.191)
Own beliefs about mothers	**0.735**	**0.768**	**0.735**	**0.793**
(=1 if either part-time or full-time work, 0 otherwise)	**(0.441)**	**(0.422)**	**(0.443)**	**(0.407)**
Number of observations	2,093	1,318	226	135
Own beliefs about fathers	**0.941**	**0.924**	**0.964**	**0.962**
(=1 if either part-time or not work, 0 otherwise)	**(0.236)**	**(0.266)**	**(0.186)**	**(0.191)**
Number of observations	2,083	1,323	225	133
Panel C: Perception of social norms				
How socially appropriate is it that				
… a mother with a child below school age works part-time?				
fairly appropriate	0.424	0.502	0.423	0.453
	(0.494)	(0.500)	(0.495)	(0.500)
Appropriate	0.261	0.304	0.216	0.345
	(0.440)	(0.460)	(0.412)	(0.477)
… a mother with a child below school age works full-time?				
fairly appropriate	0.086	0.149	0.062	0.158
	(0.280)	(0.357)	(0.241)	(0.366)
Appropriate	0.046	0.073	0.040	0.050
	(0.211)	(0.261)	(0.196)	(0.219)
… a father with a child below school age works part-time?				
fairly appropriate	0.452	0.468	0.465	0.388
	(0.498)	(0.499)	(0.500)	(0.489)
Appropriate	0.309	0.390	0.262	0.468
	(0.462)	(0.488)	(0.441)	(0.501)
… a father with a child below school age works not at all?				
fairly appropriate	0.295	0.333	0.344	0.367
	(0.456)	(0.471)	(0.476)	(0.484)
Appropriate	0.358	0.303	0.344	0.245
	(0.479)	(0.460)	(0.476)	(0.431)
Social norms about mothers	**0.703**	**0.812**	**0.639**	**0.799**
(=1 if appropriate and fairly appropriate to work part- or full-time, 0 otherwise)	**(0.457)**	**(0.390)**	**(0.481)**	**(0.403)**
Number of observations	1,916	1,408	227	139
Social norms about fathers	**0.599**	**0.529**	**0.529**	**0.532**
(=1 if appropriate to work part-time or not at all, 0 otherwise)	**(0.490)**	**(0.499)**	**(0.500)**	**(0.501)**
Number of observations	1,649	1,407	191	139

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Table A.1. – continues from previous page

	(1) First wave All	(2) Second wave All	(3) First wave Jan-March 2007	(4) Second wave Jan-March 2007
Panel D: Individual controls				
Age	12.4	16.6	12.2	17.2
	(0.81)	(0.65)	(0.43)	(0.42)
Female	0.513	0.561	0.637	0.640
	(0.500)	(0.497)	(0.482)	(0.482)
Immigrant	0.056	0.067	0.044	0.079
	(0.230)	(0.252)	(0.206)	(0.271)
Mother immigrant	0.177	0.240	0.137	0.223
	(0.382)	(0.427)	(0.345)	(0.418)
Father immigrant	0.175	0.238	0.121	0.180
	(0.380)	(0.426)	(0.327)	(0.385)
Mother college	0.501	0.565	0.484	0.619
	(0.500)	(0.496)	(0.501)	(0.487)
Father college	0.391	0.469	0.383	0.453
	(0.488)	(0.499)	(0.487)	(0.500)
First born	0.467	0.505	0.423	0.468
	(0.500)	(0.500)	(0.495)	(0.501)
Number of observations	2,317	1,412	248	139

Note: The table reports the means and standard deviations (in parentheses) of the dependent and control variables used in the analysis. The information reported in column (1) corresponds to interviews collected during the first wave (in 2019 and 2020), in column (2) to interviews collected during the second wave (in 2024 and 2025). Column (3) is restricted to respondents from the first wave born between 01.01.2007 and 23.03.2007 and column (4) is restricted to respondents from the second wave born between 01.01.2007 and 23.03.2007. Panel A displays the share of children providing a non-traditional answer to the battery of gender role attitudes questions taken from the ISSP. For question (a) and (b) it shows the percentage who" strongly agree" or" agree". For questions (c), (d), (e), (f), (g) and (h), it displays the percentage who" strongly disagree" or" disagree". The "Gender role attitudes index" is the standardized first component of a principal component analysis using the previous seven questions. Panel B displays respondents' own beliefs about parental labor supply with children below school age. "Own beliefs about mothers" is an indicator that takes value 1 if the respondent answer that a mother with a child before school age should work full-time or part-time and zero otherwise. "Own beliefs about fathers" is an indicator that takes value 1 if the respondent answers that a father with a child before school age should work part-time or not at all. Panel C shows the results of the incentivized coordination game. For every question it displays the percentage of children who answered that it is "fairly appropriate" and the percentage of children who answered that it is "appropriate". The "Perceptions of the social norm about mothers" indicates the share who answered that it is at least "fairly appropriate" that a mother with a child below school age works part-time or full-time. The "Perceptions of the social norm about fathers" indicates the share who answered that it is "appropriate" that a father with a child below school age works part-time or does not work at all. Panel D shows individual controls included in the main regression.

Table A2. Gender role attitudes: Our survey vs. ISSP

	(1) First wave (12-13 y.o., 2019-20)	(2) Second wave (17-18 y.o., 2024-25)	(3) ISSP 2012 (25-50 y.o.)	(4) ISSP 2022 (25-50 y.o.)
"Agree" or "strongly agree" with:				
(a) A working mother can establish just as warm and secure relationship with her	0.680	0.800	0.643	0.633
children as a mother who does not work.	(0.896)	(0.243)	(0.319)	(0.322)
(b) Both men and women should contribute to the household income.	0.896	0.876	0.822	
	(0.198)	(0.191)	(0.193)	
"Disagree" or "strongly disagree" with:				
(c) A pre-school child is likely to suffer if his or her mother works.	0.442	0.638	0.538	0.536
	(0.277)	(0.269)	(0.310)	(0.308)
(d) All in all, family life suffers when the woman has a full-time job.	0.486	0.500	0.453	0.496
	(0.291)	(0.286)	(0.311)	(0.328)
(e) A job is all right, but what most women really want is a home and children.	0.543	0.775	0.646	0.717
	(0.305)	(0.236)	(0.305)	(0.266)
(f) Being a housewife is just as fulfilling as working for pay.	0.480	0.450	0.585	0.601
	(0.296)	(0.298)	(0.321)	(0.25)
(g) A man's job is to earn money and a woman's job is to look after the home and	0.918	0.908	0.844	0.881
family.	(0.176)	(0.165)	(0.233)	(0.216)
N. of observations	248	139	1,238	707

Note: Columns (1) and (2) display the share of children in our sample providing a non-traditional answer to the battery of gender role attitudes questions taken form the ISSP in the first and second wave, respectively. The sample is restricted to children born between 01.01.2007 and 23.03.2007. These two columns correspond to Columns (3) and (4) in Panel A of Table A.1. Column (3) and (4) display the share of adults aged 25-50 in the International Social Survey Program (ISSP) in 2012 and 2022, respectively, providing a non-traditional answer to the battery of gender role attitudes included in those surveys.

Table A3. Summary statistics on household chores and expectations

	(1) First wave Jan-March 2007 Boys	(2) First wave Jan-March 2007 Girls	(3) Second wave Jan-March 2007 Boys	(4) Second wave Jan-March 2007 Girls
Panel A: Household Chores				
Do you help at least occasionally with..				
Laundry	0.802	0.858	0.740	0.761
	(0.401)	(0.350)	(0.443)	(0.429)
Cleaning	0.658	0.844	0.612	0.820
	(0.477)	(0.364)	(0.492)	(0.386)
Cooking	0.506	0.553	0.720	0.719
	(0.503)	(0.499)	(0.454)	(0.452)
Grocery shopping	0.882	0.787	0.776	0.674
	(0.324)	(0.411)	(0.423)	(0.471)
Small repairs	0.605	0.333	0.420	0.225
	(0.492)	(0.473)	(0.499)	(0.420)
N. of observations	85	141	48	88
Panel B: Future work and family life expectations				
In 20-years' time, how do you see yourself?				
With children	0.640	0.610	0.533	0.573
	(0.483)	(0.490)	(0.505)	(0.498)
With children and working full-time	0.256	0.128	0.333	0.354
	(0.439)	(0.335)	(0.477)	(0.481)
Working in counterstereotypical occupation	0.067	0.108	0.222	0.123
	(0.251)	(0.311)	(0.420)	(0.331)
Working in a STEM occupation	0.300	0.076	0.378	0.111
	(0.461)	(0.265)	(0.490)	(0.316)
Number of observations	86	141	45	82

Note: The sample is restricted to respondents born between 01.01.2007 and 23.03.2007 to show the descriptive statistics for our benchmark sample. Column (1) and (2) reports descriptives separately for boys and girls in the first wave, while column (3) and (4) repectively for the second wave. Panel A shows the share that contributes "sometimes" or "at least once per week" to each domestic task. Panel B shows the expectations regarding fertility and labor market choices. "With children" refers to the share of respondents that expect to have children in 20 years' time; "With children and working full-time" is the share that expect to be working full-time and having children in 20 years' time; "Working in a counter-stereotypical occupation" is the share of respondents that expect to be working in one of the three most popular occupations among the opposite sex; "Working as engineers or computer scientists" is the share of respondents that expects to be working in these two occupations.

Table A4. The effect of paternity leave on children's attitudes and beliefs (global index), RD and RD-DiD specifications

Panel A. Regression discontinuity design (children born in 2007)

	(1) Full year	(2) Jan.-June	(3) Full year	(4) Jan.-June
Main effect (β_2)	0.150*	0.0925	-0.0574	0.0460
	(0.0793)	(0.170)	(0.126)	(0.165)
By wave				
First wave effect (δ_5)	0.252**	0.390	0.118	0.356
	(0.115)	(0.273)	(0.194)	(0.253)
Second wave effect ($\delta_5+\delta_6$)	0.0372	-0.219	-0.257	-0.280
	(0.0847)	(0.179)	(0.167)	(0.192)
N	1,340	632	1,340	632

Panel B. RD-DiD (children born in 2006-2008)

	(1) Full year	(2) Jan.-June	(3) Full year	(4) Jan.-June
Main effect (β_2)	0.233**	0.107	0.0333	0.0461
	(0.112)	(0.222)	(0.147)	(0.220)
By wave				
First wave effect (δ_5)	0.416**	0.0710	0.277	0.0322
	(0.183)	(0.305)	(0.237)	(0.289)
Second wave effect ($\delta_5+\delta_6$)	0.0384	0.192	-0.227	0.134
	(0.113)	(0.235)	(0.166)	(0.253)
N	2,670	1,277	2,670	1,277

Note: Each coefficient comes from a different regression. The dependent variable is an index (the standardized first component of a principal components decomposition) that combines our five main outcomes. The five outcomes are: an index of individual attitudes (combining 7 questions), two measures of beliefs, and two measures of perceived social norms (about mothers' and fathers' roles). Panel A shows the main coefficient from an RD specification including all children born in 2007 with non-missing information on the outcome variable. Panel B shows the main coefficients from an RD-DiD specifications including children born in 2006-2008. Columns (1) and (2) impose a common slope on both sides of the cutoff, whereas columns (3) and (4) allow for different slopes on either side of the cutoff. Within each panel, the first and second row show the coefficient on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The third row shows the coefficient for the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and an indicator for our second survey wave (*Wave*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table A5. The effect of paternity leave on children's attitudes and beliefs (global index) by subgroups

	(1) Baseline	(2) Compliers	(3) Boys	(4) Girls	(5) First-born kids	(6) High educ.
Panel A.						
Main effect (β_2)	0.103	0.162*	0.164	0.047	0.024	-0.070
	(0.0801)	(0.0938)	(0.130)	(0.106)	(0.139)	(0.140)
Panel B. By wave						
First wave effect (δ_5)	0.236**	0.318***	0.364**	0.125	0.090	0.064
	(0.0912)	(0.100)	(0.171)	(0.146)	(0.145)	(0.160)
Second wave effect ($\delta_5+\delta_6$)	-0.051	-0.037	-0.060	-0.041	-0.040	-0.221
	(0.117)	(0.150)	(0.174)	(0.138)	(0.225)	(0.198)
N	2,751	2,008	1,268	1,483	1,336	906

Note: Panel A reports the coefficients of interest estimated from equation (1), while Panel B reports the coefficients of interest estimated from equation (2). Within each panel, each column reports the results from a different regression. The sample includes all children in our school survey with non-missing information on the five main outcomes. The dependent variable is an index (the standardized first component of a principal components decomposition) that combines our five main outcomes. The five outcomes are: an index of individual attitudes (combining 7 questions), two measures of beliefs, and two measures of perceived social norms (about mothers' and fathers' roles). Panel A (and the first row of Panel B) shows the coefficient on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The second row of the second panel shows the coefficient for the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and an indicator for our second survey wave (*Wave*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). Column 1 replicates the first column of Table 1. Column 2 restrict the sample to the subgroup of children for whom we expect higher participation in paternity ("compliers"), i.e., children whose parents have the same level of education (González and Zoabi, 2026). Columns 3 and 4 restrict the sample to boys and girls, respectively. In column 5 we restrict the sample to first-born children, and column 6 includes children who report both parents are college educated. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table A6. The effect of paternity leave on task performance, competitiveness, confidence and risk aversion

Main effect (β_2)	(1) All	(2) Boys	(3) Girls
Correct answers in piece rate	0.035	0.197	-0.070
	(0.247)	(0.435)	(0.292)
Mean control	5.01	5.9	4.51
N	2,312	1,125	1,187
Correct answers in competition	0.007	-0.091	0.062
	(0.313)	(0.492)	(0.355)
Mean control	5.87	6.86	5.32
N	2,312	1,125	1,187
Correct answers in piece rate or competition (choice)	-0.045	-0.104	-0.013
	(0.340)	(0.542)	(0.415)
Mean control	6.18	6.83	5.82
N	2,308	1,122	1,186
Correct answers in total	-0.032	0.024	-0.088
	(0.798)	(1.356)	(0.962)
Mean control	17.07	19.59	15.64
N	2,312	1,125	1,187
Willingness to compete	-0.060	-0.128	-0.003
	(0.046)	(0.079)	(0.054)
Mean control	0.464	0.567	0.405
N	2,317	1,129	1,188
Self-confidence in math task	-0.079	-0.207	0.001
	(0.153)	(0.190)	(0.196)
Mean control	-0.339	0.378	-0.747
N	2,317	1,129	1,188
Guess girls at top	-0.002	-0.124	0.132*
	(0.055)	(0.082)	(0.064)
Mean control	1.60	1.62	1.60
N	1,916	945	971
Guess girls at bottom	0.042	0.035	0.036
	(0.096)	(0.091)	(0.136)
Mean control	1.25	1.22	1.26
N	1,916	945	971
Risk aversion (lottery)	0.130	0.233	0.080
	(0.131)	(0.225)	(0.143)
Mean control	2.95	3.00	2.9
N	2,317	1,129	1,188
Cheating in an exam	0.030	0.028	0.035
	(0.031)	(0.032)	(0.042)
Mean control	0.062	0.058	0.064
N	1,916	945	971

Note: The data come from the incentivized part of our survey implemented only during the first wave. Each coefficient in the table stems from a separate regression and corresponds to the OLS estimate of the coefficient on the interaction term (*After x TreatedCohort*) in a version of equation (1) that further includes

cohort-of-birth fixed effects (*TreatedCohort*), an *After* indicator equal to 1 if the child was born between March 24 and December, and school-visit fixed effects. Included controls are gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). Column (1) reports results for the full sample, while columns (2) and (3) present estimates separately for boys and girls. The outcome in the first row "Correct answers in piece rates" corresponds to the number of correct additions performed by the respondent in the incentivized part of the survey under piece-rate incentives. The outcome in the second row is the number of correct additions under competitive incentives, where children compete in groups of four randomly assigned students. The third row reports the number of correct additions when children can choose between piece-rate and competitive incentives. "Correct answers in total*"* is the total number of correct additions across the piece-rate task, the competitive task, and the chosen incentive scheme.. "Willingness to compete" is an indicator equal to one if the child chooses competition rather than piece-rate pay when given the choice. "Self-confidence in math task" measures the child's self-reported rank in performance on the competitive task relative to the other three members of their group. "Guess girls at top" is the number of girls the respondent believes are among the top three performers in the same mathematical task conducted at another school, while "Guess girls at bottom" is the number of girls believed to be the worst performer in that task. "Risk aversion" is an indicator of risk preferences, taking values from 0 (most risk-averse option) to 6 (most risk-loving option), based on the child's lottery choice. Mean control is the average of each dependent variable for children born between 01.01.2007 and 23.03.2007. (*** 99%, ** 95%, * 90%)

Table A7. The effects of paternity leave on school outcomes (administrative data)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Math	Catalan	Spanish	English	Science	Non-compulsory High School	STEM High School
6th grade							
Main effect (β_2)	-0.003	0.032	0.049**	0.012	0.041*		
	(0.025)	(0.023)	(0.021)	(0.022)	(0.024)		
Mean control	0	0	0	0	0		
N	30,302	29,456	29,546	29,544	29,468		
10th grade							
Main effect (β_2)	-0.003	-0.021	-0.039*	-0.034	-0.021	-0.009	-0.006
	(0.023)	(0.022)	(0.022)	(0.024)	(0.021)	(0.011)	(0.011)
Mean control	0	0	0	0	0	0.629	0.322
N	27,208	27,175	27,184	26,655	26,943	27,612	27,612

Note: The data come from the administrative record of the IDESCAT (Institut d'Estadística de Catalunya) on standardized test scores in Math, Catalan, Spanish, English and Science, and high school track choices in STEM fields, covering a 40% sample of students born between January and June, 2006 and 2007 and enrolled in the public education system. Test scores in column (1) to (5) have been standardized to have mean 0 and standard deviation 1 in the pre-reform sample of children born between 01.01.2007 and 23.03.2007. In column (6), "Non-compulsory High School" is an indicator that takes value 1 if the student is enrolled in non-compulsory high school education (i.e., grades 11^{th} and 12^{th}) and 0 otherwise. In column (7), "STEM High School" is an indicator that takes value 1 if the student chooses to enroll in the STEM track during non-compulsory High School and 0 otherwise. Each coefficient in the Table stems from a separate regression and corresponds to the OLS estimate of the coefficient on the interaction term (*After x TreatedCohort*) in a version of equation (1) that includes children cohort and month of birth fixed effects, number of siblings, gender of student, parental education, parental migration background and school fixed effects. Mean control is the average of each dependent variable for children born between 01.01.2007 and 23.03.2007. Standard errors are clustered at the school level and shown in parentheses. (*** 99%, ** 95%, * 90%)

Table A8. The effect of paternity leave on parental behavior over the course of childhood

Panel A. Evidence from four surveys (fathers' contribution to childcare and housework)

Data set	(1) Time-use survey (2009-10)	(2) Fertility survey (2018)	(3) Ipsos survey (2020)	(4) Covid survey (2020)
Dependent variable	Daily minutes	Share done by father	Weekly hours	Share done by father
Main effect (β_2)	63.87*	0.313***	5.592	0.203**
	(38.41)	(0.109)	(4.405)	(0.087)
Mean control	260	0.00	30.9	0.00
N	515	2,116	578	2,229

Note: The coefficient shown is the one on the interaction term *(After x TreatedCohort)* in equation (1). The first column uses the Spanish Time Use Survey of 2009-10 (INE). The sample includes all men and women with a child born in 2006-08. The dependent variable is the number of daily minutes spent in childcare and housework in the reference day. The second column uses the Spanish Fertility Survey of 2018 (INE). The sample includes all men and women reporting having a child born in 2006-08. The dependent variable is the (standardized) sum of a set of variables measuring the share of different childcare activities performed by the mother and the father (0 when the activity is performed by the mother, 0.5 if equal shares, 1 if the father). The third column uses an online survey conducted in May and November 2020 on a sample of 7,510 individuals aged 24-50. The sample is restricted to respondents with children born in 2006-08. The dependent variable is the weekly number of hours devoted to household chores (including cleaning, laundry, cooking, shopping, and small repairs) and childcare (physical and educational activities with children, e.g., bathing, putting them to bed, and leisure time). The fourth column uses an online survey conducted in April 2020 (by Ipsos) on a sample of 7,091 adults. The estimation is restricted to respondents with children born in 2006 and 2007. The dependent variable is the (standardized) sum of a set of six variables taking value 1 if the father is always or almost always responsible for the task (including childcare and housework), and 0 otherwise. (*** 99%, ** 95%, * 90%)

Panel B. Evidence from the Time-Use Survey 2009-10

Panel B.1 Fathers' Time Use

	(1) Childcare+ housework	(2) Childcare	(3) Housework	(4) Paid Work
Main effect (β_2)	63.87*	26.77	37.10	-54.64
	(38.41)	(26.32)	(25.15)	(59.47)
Mean control	260	123	138	220
N	515	515	515	515

Panel B.2 Mothers' Time Use

	(5) Childcare+ housework	(6) Childcare	(7) Housework	(8) Paid Work
Main effect (β_2)	-35.91	-37.94	2.03	49.39
	(38.76)	(27.44)	(25.78)	(41.48)
Mean control	329	147	182	181
N	547	547	547	547

Note: The data come from the Spanish Time Use Survey of 2009-10 (INE). The sample includes all men and women reporting having a child born in 2006, 2007 or 2008. Each coefficient stems from a separate regression and corresponds to the OLS estimate of the coefficient on the interaction term *(After x TreatedCohort)* in equation (1). The dependent variable is the number of minutes spent in childcare, housework, or work in the reference day. Panel A.1 uses the sample of men (fathers), while Panel A.2 shows the results for women (mothers). (*** 99%, ** 95%, * 90%)

Panel C. Evidence from the Fertility Survey of 2018

Panel C1. Fathers' contribution to chores

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Any activity	Preparing food	Doing laundry	Playing with the child	Handling bedtime	Home when child Sick	Help with homework	Bringing the child to school	Home after school	Help with dressing	Bathing
Main effect (β_2)	**0.502*** **	0.058*	0.064**	0.081***	0.052*	0.026	0.068**	0.052	0.033	0.022	0.044
	(0.174)	(0.031)	(0.028)	(0.030)	(0.028)	(0.032)	(0.034)	(0.036)	(0.028)	(0.027)	(0.027)
Mean control	**2.967**	0.187	0.157	0.392	0.370	0.232	0.259	0.331	0.355	0.328	0.355
N	**2,116**	2,116	2,116	2,116	2,116	2,116	2,116	2,116	2,116	2,116	2,116

Panel C2. Paternity leave take-up and parental attitudes

	(1) Pat. leave take-up	(2) Weeks of paternity leave	(3) Attitudes a/women	(4) Attitudes a/men
Main effect (β_2)	0.182***	0.679***	-0.039	0.292***
	(0.051)	(0.223)	(0.104)	(0.105)
Mean control	0.241	0.601	-0.011	-0.119
N	2,116	2,115	2,116	2,116

Note: The data come from the Spanish Fertility Survey of 2018 (INE). The sample includes all men and women reporting having a child born in 2006, 2007 or 2008. Each coefficient stems from a separate regression and corresponds to the OLS estimate of the coefficient on the interaction term *(After x TreatedCohort)* in equation (1). The dependent variables in Panel B.1 are a set of variables measuring the share of different childcare activities performed by the mother and the father (0 when the activity is performed by the mother, 0.5 if equal shares, 1 if the father). "Any activity" is just the sum of the ten variables for each task. The dependent variables in Panel B.2 are: (1) an indicator for respondents who report that the father took paternity leave for the reference child, (2) a variable measuring the number of weeks of paternity leave taken, and two variables (3-4) indicating agreement with the statements: "For a woman/man, the priority should be her/his family rather than his professional career.". (*** 99%, ** 95%, * 90%)

Panel D. The effect of paternity leave on parents' paid and unpaid work: Evidence from Ipsos survey of 2020

	(1)	(2)	(3)	(4)
	Employed	Hours paid work	Hours domestic chores	Hours childcare
Fathers				
Main effect (β_2)	-0.059	-0.386	5.338***	-0.741
	(0.061)	(2.947)	(1.647)	(3.522)
N. obs.	715	682	578	513
Pre-reform mean	0.904	30.02	7.11	17.24
Mothers				
Main effect (β_1)	0.005	0.074	1.219	-5.127
	(0.088)	(3.302)	(2.497)	(6.114)
N. obs.	688	662	550	442
Pre-reform mean	0.662	21.51	13.11	30.4

Note: The data come from an online survey conducted in May and November 2020 on a sample of 7,510 individuals aged 24–50, representative of the Spanish population. The data were collected to investigate the impact of the COVID-19 lockdown on the distribution of paid and unpaid work (see Farré et al., 2022, for a detailed description of the data). In the table, the estimation is restricted to respondents with children born in 2006, 2007, and 2008. Each coefficient in the table stems from a separate regression and corresponds to the OLS estimate of the coefficient on the interaction term *(After x TreatedCohort)* in equation (1). The first panel reports the results for male respondents, while the second reports the results for female respondents. The dependent variables are: (1) an indicator equal to 1 if the respondent reports being employed; (2) the weekly number of hours in paid work; (3) the weekly number of hours devoted to household chores, including cleaning, laundry, cooking, shopping, and small repairs; (4) the weekly number of hours devoted to physical and emotional activities with children (e.g., bathing, putting them to bed, and leisure time). (*** 99%, ** 95%, * 90%)

Panel E. The effect of paternity leave on fathers' contribution to household chores: Evidence from Covid-19 survey

	Any activity	(1) Cleaning	(2) Laundry	(3) Cooking	(5) Shopping	(5) Homework	(6) Leisure
Main effect (β_2)	**0.212****	0.007	0.068***	0.021	0.052	0.030	0.016
	(0.090)	(0.018)	(0.021)	(0.032)	(0.036)	(0.026)	(0.026)
N. obs.	**2,229**	2,428	2,436	2,261	2,438	2,434	2,433
Pre-reform mean	**0.685**	0.061	0.050	0.172	0.232	0.082	0.096

Note: The data come from an online survey conducted in April 2020 (by Ipsos) on a sample of 7,091 adult individuals. The purpose of the survey was to analyze the impact of COVID-19 on gender inequality within households. In the table, the estimation is restricted to respondents with children born in 2006 and 2007 (3,140 observations). Each coefficient in the table stems from a separate regression and corresponds to the OLS estimate of the coefficient on the interaction term (*After x TreatedCohort*) in a version of equation (1) that includes cohort-of-birth fixed effects (*TreatedCohort*), an *After* indicator equal to 1 if the child was born between April and December, the interaction between *TreatedCohort* and *After*, indicators for mothers' and fathers' college degrees, an indicator for the gender of the respondent, and a lockdown indicator, as the information on the distribution of tasks was collected retrospectively for the pre-lockdown period and in real time during the lockdown in April 2020. The dependent variable in columns (1) to (6) equals 1 if the father is always or almost always responsible for the task, and 0 otherwise. "Any activity" is just the sum of the ten variables for each task. (*** 99%, ** 95%, * 90%)

FOR ONLINE PUBLICATION ONLY

Appendix B: Information letter and Questionnaire

Appendix B.1: Information letter provided to the parents (translated from Catalan)

Dear families,

we would like to inform you that the school of your child will participate in a project led by researchers from Universitat Pompeu Fabra, Universitat de Barcelona and Universität Würzburg (in Germany).

These researchers will visit the school within the next few days and will ask all students enrolled in 1st and 2nd grade of Compulsory High School [6th and 7th grade] to participate in a survey as well as in some mathematical quizzes. The researchers will compensate all participating students with a voucher of a symbolic amount that can be exchanged at any Abacus [stationary] store nearby.

The answers of the students to the survey and the mathematical quizzes will be anonymous. The researchers will share with the school only the aggregated results once the project is finished.

Please find attached a document where you can find more details about the research project.

Thank you for your attention.

Lídia Farré (Professor at the University of Barcelona)

Research project: The impact of public policies on the cognitive and non-cognitive development of children

Principal investigator: Lídia Farré (Universitat de Barcelona)

Main goal of the project: The objective of the research project is to determine the effects of different public policies on the cognitive and non-cognitive development during childhood.

Methodology: The researchers will visit the school and will ask all students attending 1st and 2nd grade of Compulsory High School [6th and 7th grade] to participate in a survey as well as some mathematical quizzes. The participation in the study will last approximately 30 minutes.

Risks and benefits of participation: Students will participate in a study that will help to improve the design of public policies. To acknowledge their participation in the study, students will receive a voucher to be exchanged at a local stationary store (Abacus). Participating students must exert some effort, in particular they must concentrate and focus on a screen for 20-30 minutes in order to complete the exercises. As such there is a slight risk of fatigue. In addition, some children might find it stressful to solve simple mathematical quizzes (additions) under time pressure.

Privacy: To protect privacy, children's responses will be kept completely anonymous. Any results that will be shared or made public will refer only to the aggregate responses of children attending multiple schools and will be done so in a completely anonymized way. As such, it is impossible to identify neither the school nor the municipality.

Voluntary Participation: Participation in this project is completely voluntary. We will inform students that their participation is voluntary, and that they can withdraw at any time without having to justify their decision. We will also request the explicit consent by the teacher.

If you have any questions about the study, please contact: Lidia Farré (lidia.farre@ub.edu).

Appendix B.2: Questionnaire

START

INFORMATION AND CONSENT
We are conducting a research project to analyze the impact of public policies on the cognitive and non-cognitive development of children and adolescents. The principal investigator on the project is Dr. Lídia Farré from the University of Barcelona.

I CONFIRM that:

- the information about the research project has been read to me,
- I have been able to ask questions about the project,
- I have received enough information about the project.

I UNDERSTAND that my participation in the project is voluntary and that I can withdraw from it at any time without having to justify my decision. I GIVE MY CONSENT to take part in this research project

Yes – No

I. ATTITUDES

We are now going to ask you some questions. Please answer these questions sincerely. We want to know what you really think. No one will know how you chose to respond. There are no right or wrong answers.

1. Read the following statements and say whether you: Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree.

a) A mother who goes out to work can have just as good a relationship with her children as a mother who does not go out to work.

b) It can be bad for a child under the age of 3 if her mother goes out to work.

c) When a mother spends the whole day (morning and afternoon) out working, family life can suffer.

d) Having a job is fine, but what most women want is to form a family and have children.

e) Taking care of the home and family can make a woman just as happy as having a job.

f) Both partners, should bring money into the home.

g) The man should be the breadwinner while the woman should take care of the home and family.

h) When a woman earns more than her husband, there are certainly problems.

i) Both the mother and father should take leave from work for a few weeks after the birth of their son or daughter.

2.a) Do you think a **father** should work full-time (mornings and afternoons), part-time (mornings or afternoons only) or not work at all when his child has not yet started school (under the age of 3).

2.b) Do you think a **mother** should work full-time (mornings and afternoons), part-time (mornings or afternoons only) or not work at all when her child has not yet started school (under the age of 3).

- Shouldn't work at all.
- Should work part-time (mornings or afternoons only).
- Should work full-time (mornings and afternoons).
- I don't know
- I prefer not to answer

3. Imagine a family with a child who is still too young to go to school (under the age of 3). What do you consider the best way to organize their family and work life?

- The mother stays at home and the father goes out to work full-time (mornings and afternoons).
- The mother works part-time (mornings or afternoons only) and the father goes out to work full time (mornings and afternoons).
- Both the mother and father go out to work full-time (mornings and afternoons).
- Both the mother and father work part-time (mornings or afternoons only).
- The father works part-time (mornings or afternoons only) and the mother go out to work full-time (mornings and afternoons).
- The father stays at home and the mother go out to work full-time (mornings and afternoons).
- I don't know.

II. CONTEST

In this part of the study you have to complete three different tasks to win points. The number of points you win will depend on the number of correct answers you give when completing the tasks. Before beginning each task, we will give you instructions on how you can win points.

Test run

In the three tasks, you will be asked to add up 3 numbers. To get used to doing the task on the computer, you will now be allowed a 30-second test run. During the test run you cannot win any points.

1. Task 1 - Individual task

You will now have 2 minutes to do the sums. For each sum you get right, you will win 1 point. If you make a mistake, no points are deducted. This task is called the **individual task**.

2. Task 2 - Quiz

You have been put in a group with three boys or girls from your class (but you do not know who they are). As in task 1, you will have 2 minutes to do the sums. The boy or girl from your group that correctly solves most sums will receive 4 points for each correct answer. The rest of the group will not win any points. This task is called the **quiz**.

3. Task 3 - Choose the task type you want to do to win points

As in the previous tasks, you will have 2 minutes to do the sums. But now you have to choose which task you want to do: the *individual task* or the *quiz*. If you choose the *individual task*, you will win 1 point for each sum you get right. If you choose the *quiz*, you will only win points if you solve more sums than those solved by the same boys and girls in your group in task 2 above. If you choose the quiz, you will win 4 points for each correct answer.

Which task do you prefer to do to win points?
Individual task – Quiz

a) Task 3 - Individual task

You have chosen the individual task. As before, you have 2 minutes to do the sums. For each sum you get right, you will win 1 point. If you make a mistake, no points are deducted.

b) Task 3 – Quiz

You have chosen the quiz. As before, you have 2 minutes to do the sums. Now you will only win points if you solve more sums than those solved by the same boys and girls in your group in task 2 above. In this case, you will win 4 points for each correct answer.

4. This question is about the **quiz** you took in **task 2**. How well do you think you did in relation to the other members of your group? If you answer correctly, you will earn 4 points.

I finished: First, Second, Third, Last

5. We played this same game with boys and girls in the same grade as you but at a different school. Think again about the **quiz** you took in **task 2**.

How many boys and girls do you think there were among the three who got **the most points** at the **other** school? If you answer correctly, you will win 4 points.

How many boys and girls do you think there were among the three who got **the fewest points** at the **other** school? If you answer correctly, you will win 4 points.

3 boys, 2 boys and 1 girl, 1 boy and 2 girls, 3 girls

6. Now, to win points, you have to choose to take part in one of the following lotteries. It's like tossing a coin in the air and seeing if it lands as heads or tails. If you choose Lottery 1, you are guaranteed to win 5 points. In the other lotteries,

the number of points you win depends on how lucky you are. If you choose Lottery 2, you can win either 4 point or 8 points, etc.

Lottery 1 - 5 points or 5 points
Lottery 2 - 4 points or 8 points
Lottery 3 - 3 points or 10 points
Lottery 4 - 2 points or 12 points
Lottery 5 - 1 point or 14 points
Lottery 6 - 0 points or 15 points

III. NORMS

You will now play a game with a classmate but you won't know who he or she is. In this game, we will ask you both the same question. For example: **Do you think it will rain tomorrow?** If you both give the same answer, you will each win 2 points. If you give different answers, neither of you will win any points. If you have any doubts, please raise your hand.

Test Question 1: If your partner says "Yes, it'll rain tomorrow", what must you answer to win two points?

Yes, it'll rain tomorrow - No, it won't rain tomorrow
Correct answer. Incorrect answer. To win points, you must give the same answer as your partner.

Test Question 2: If your partner thinks that you will answer: "No, it won't rain tomorrow", what must your answer be to win two points?
Yes, it'll rain tomorrow - No, it won't rain tomorrow
Correct answer. Incorrect answer. If your partner thinks that you will answer: "No, it won't rain tomorrow", he or she will answer: "No, it won't rain tomorrow". When he or she answers, "No, it won't rain tomorrow", you must answer: "No, it won't rain tomorrow" to win points.

Test Question 3: To win points in this game, do you think it's important that it rains tomorrow?
Yes – No
Correct answer. Incorrect answer. In this game, tomorrow's weather (whether it rains or not) is not important to win points. What is important is that you and your partner give the same answer.

1. Let's start the game. We are now going to ask you and your partner if you think it'll rain tomorrow. If you give the same answer, you will each win 2 points. If you give different answers, neither of you will win any points.
Do you think it will rain tomorrow? Yes, it'll rain tomorrow - No, it won't rain tomorrow

2. Let's continue playing the game. We are now going to ask you and your partner if you think it is appropriate to copy in an exam. When we say "appropriate", we refer to behavior that most people think is correct or good. In contrast we say that behavior is "inappropriate" when most people think it is incorrect or bad. If you and your partner give the same answer, you will each

receive 4 points.
Copying in an exam: Is appropriate, Is fairly appropriate, Is fairly inappropriate, Is inappropriate

3. We are now going to ask you and your partner four more questions. Remember, only if you give the same answer will you each receive 4 points.

a) That a **mother** goes out to work **full-time** (mornings and afternoons) when her child has not yet started school (under the age of 3).

b) That a **mother** goes out to work **part-time** (only mornings or afternoons) when her child has not yet started school (under the age of 3).

c) That a **father** goes out to work **part-time** (only mornings or afternoons) when his child has not yet started school (under the age of 3).

d) That a **father does not go out to work** at all so as to look after his child when the child has not yet started school (under the age of 3).

Is appropriate, Is fairly appropriate, Is fairly inappropriate, Is inappropriate

4. How do you think most people in your class responded to the following statement: "The man should be the breadwinner while the woman should take care of the home and family". If you answer correctly, you will win 5 points. Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly disagree.

IV. OUTCOMES

We are now going to ask you some questions about how you see yourself in the future. Please answer these questions sincerely and, remember, no one will know how you chose to respond.

1. How do you see yourself in 20 years' time?

- I'll have children and not go out to work
- I'll have children and go out to work part-time (only mornings or afternoons)
- I'll have children and go out to work full-time (mornings and afternoons)
- I'll go out to work and I'll have no children
- I'll not go out to work and I'll have no children

2. What do you want to be when you grow up? Choose just ONE of the jobs on the list: (Football player, Police officer, Primary or Secondary school teacher, Scientist, Architect, Engineer, Doctor, Firefighter, Vet, Computer scientist, Hairdresser, Singer or Musician, Nurse, Actor, Gymnast or Dancer, Designer, Journalist, Lawyer or Judge, Biologist)

If your preferred job is not on the list, write it here:

V. DEMOGRAPHICS

1.a) What year were you born in?
1.b) What month were you born in? January, February, March, April, May, June, July, August, September, October, November, December

1.c) What day were you born on?
Between the 1st and the 12th, between the 13th and the 23rd, between the 24th and the 31st

2. Are you a boy or a girl? Boy, Girl

3.a) Where were you born?
3.b) Where was your **mother** born?
3.c) Where was your **father** born?
Pilot: In Catalonia, somewhere in the rest of Spain, in another country, I don't know

Main: Morocco, Romania, Ecuador, Another European country, Another African country, Another American country, An Asian country, Other, I don't know

4.a) Do you live with your **mother**?
4.b) Do you live with your **father**?
Yes; No; Yes, some days; Yes, most days

5.a) Does your **mother** have a job?
5.b) Does your **father** have a job?
Yes, a full-time job (mornings and afternoons)
Yes, a part-time job (only mornings or afternoons)
No; I don't know

6.a) Did your **mother** go to college?
6.b) Did your **father** go to college?
Yes, No, I don't know

7.a) How many **older brothers** do you have?
7.b) How many **older sisters** do you have?
7.c) How many **younger brothers** do you have?
7.d) How many **younger sisters** do you have?
0; 1; 2; more than 2
Including stepbrothers and stepsisters

VI. MECHANISM

We now ask you some questions about you and your family. You should tell us who normally does the chores in the house. We also want to know about you and which of the chores you do.

1. Who normally does these chores around your house?

a) Wash the clothes and put them away.

b) Do small repair jobs. For example, hang a picture, repair a door knob, paint a wall.

c) Go to the supermarket or the market.

d) Clean the house.

e) Cook.
Always my mother; My mother more than my father; Always my father; My father more than my mother; Both my father and my mother; Another person; My parents don't live together; I don't know

2. What about you? When do you do these chores or when do you help out with them?

At least once a week; Occasionally (less than once a week); Almost never; Never

3. We want you now to think about your parents,

a) Who helps you with your homework?

b) Who stays at home when you are sick?

c) Who spends more time with you on weekends?

d) Who's home when you get back from school?

e) Who do you talk to when you're worried or have a problem?

f) Who's home when you eat at night?

g) Who asks you if you've had a good day?

Always my mother; My mother more than my father; Always my father; My father more than my mother; Both my father and my mother; Another person; My parents don't live together; I don't know

3. Now we would like to know if you think your father is a supporter of feminism.

Yes, No, I don't know, I prefer not to answer

VII. OPTIONAL

1. We are now going to ask you some more questions about yourself. Please answer these questions sincerely and, remember, no one will know how you chose to respond.

a) When someone does me a favor, I am more than willing to return that favor.

b) I assume people's intentions are always good.

c) I am in the habit of putting off until later work I know it would be better to finish right away.

d) This statement does not describe me at all; This statement describes me perfectly

e) Do you like to take risks or take risky actions?

f) Do you like to make donations to a good cause without expecting anything in return?
I usually put off until tomorrow the jobs I should get done today

This statement does not describe me at all; This statement describes me perfectly

2. To finish, we would like you to answer the following questions. You should answer either True or False

a) I always show respect to the elderly:

b) Sometimes I don't feel like doing what the teacher asks us to do:

c) I sometimes feel like throwing or breaking things:

d) I am never disrespectful to my parents or answer them back:

e) When I make a mistake, I'm the first to admit it:

f) I sometimes laugh at people:

g) I always wash my hands before eating:

h) I sometimes feel like lazing around and not going to school:

i) I have never been tempted to break the rules or the law:

j) Sometimes I don't feel like helping my parents out even though I know they need my help around the house:

k) I sometimes say things just to impress my friends:

l) I never shout when I'm angry:

3. And last but not least:

a) What do cows drink?

b) If I have 3 apples and you take away 2, how many apples do you have?

c) A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does the ball cost?

PAYMENT

Thank you very much for taking part. The following page shows how many euros you have contributed to the voucher we will give to your school.

Appendix C: Additional Figures and Tables

Table C1. The effect of paternity leave on children's gender attitudes (index), alternative construction (two additional variables)

	(1)	(2)	(3)	(4)	(5)
	Baseline	Dob fe	2006-08 natives	Jan-June	Same schools
Panel A.					
Main effect (β_2)	0.077	0.075	0.065	0.054	0.139
	(0.068)	(0.069)	(0.071)	(0.092)	(0.087)
Panel B. By wave					
First wave effect (δ_5)	0.161*	0.163*	0.174*	0.177	0.201***
	(0.088)	(0.088)	(0.087)	(0.118)	(0.058)
Second wave effect ($\delta_5+\delta_6$)	-0.041	-0.046	-0.083	-0.106	0.097
	(0.093)	(0.095)	(0.090)	(0.122)	(0.11)
N	3,328	3,326	3,042	1,593	910

Note: Panel A reports the coefficients of interest estimated from equation (1), while Panel B reports the coefficients of interest estimated from equation (2). Within each panel, each column reports the results from a different regression. The sample includes all children in our school survey (with non-missing information on the nine attitudes questions). The dependent variable is an index that combines nine questions about individual gender attitudes (the index is the standardized first component of a principal components decomposition). The nine questions include the seven items used to construct our gender role attitudes index, which are based on the standard ISSP questions, as well as two additional questions employed in our survey: *"When a woman earns more than her husband, there are certainly problems"* and *"Both the mother and father should take leave from work for a few weeks after the birth of their son or daughter"*. Panel A (and the first row of Panel B) shows the coefficient on the interaction between a dummy for children born in 2007 (*TreatedCohort*) and a dummy for date of birth between March 24 and December 31 (*After*). The second row of the second panel shows the sum of the previous coefficient with the triple interaction of 2007-born children (*TreatedCohort*), birthdate between March 24 and December 31 (*After*), and an indicator for our second survey wave (*Wave*). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include gender of the child, an indicator for first-born children, educational attainment of the parents (two indicators for college-educated mother and father), and migration background of the child, the mother and the father (foreign-born indicators). In column 2 we also include fixed effects for (grouped) date of birth ("Birthdate fixed effects"). In column 3 we restrict the sample to children born in Spain in years 2006-2008. In column 4 we restrict the sample to children born in January to June. In column 5 we restrict the sample to the schools that were surveyed in both waves. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Table C2. The effect of paternity leave on joint beliefs about parental employment

Panel A. Father full time, mother at home and both parents part-time

	Father full-time, mother home			**Both parents part-time**		
	(1)	(2)	(2)	(4)	(5)	(6)
	Baseline	Jan-June	Same schools	Baseline	Jan-June	Same schools
Main effect (β_2)	-0.003	-0.012	-0.069*	-0.025	-0.027	0.048
	(0.020)	(0.022)	(0.030)	(0.031)	(0.038)	(0.067)
First wave effect (δ_5)	0.003	-0.022	-0.113**	-0.020	-0.023	0.150**
	(0.029)	(0.030)	(0.038)	(0.043)	(0.053)	(0.051)
Second wave effect ($\delta_5+\delta_6$)	-0.010	0.001	-0.046**	-0.034	-0.032	-0.019
	(0.017)	(0.021)	(0.017)	(0.031)	(0.041)	(0.058)

Panel B. One parent full-time, the other part-time

	Mother full-time, father part-time			**Father full-time, mother part-time**		
	(1)	(2)	(3)	(4)	(5)	(6)
	Baseline	Jan-June	Same schools	Baseline	Jan-June	Same schools
Main effect (β_2)	0.002	-0.001	0.008	0.024	0.046*	0.024
	(0.007)	(0.012)	(0.008)	(0.017)	(0.023)	(0.036)
First wave effect (δ_5)	0.005	-0.005	0.018***	0.018	0.058*	0.023
	(0.010)	(0.017)	(0.005)	(0.022)	(0.030)	(0.055)
Second wave effect ($\delta_5+\delta_6$)	-0.003	0.007	0.001	0.029	0.024	0.022
	(0.005)	(0.013)	(0.008)	(0.025)	(0.031)	(0.042)

Panel C. Mother full-time, father full-time or home

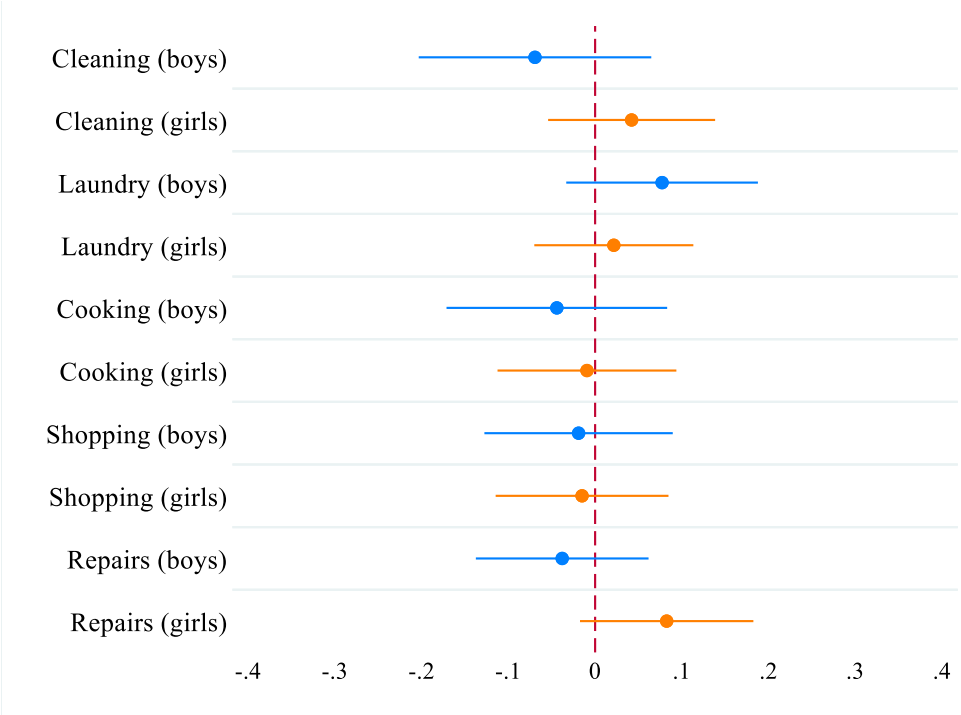
	Both parents full-time			**Mother full-time, father home**		
	(1)	(2)	(3)	(4)	(5)	(6)
	Baseline	Jan-June	Same schools	Baseline	Jan-June	Same schools
Main effect (β_2)	0.004	0.001	-0.011	-0.002	-0.008	-0.000
	(0.011)	(0.015)	(0.028)	(0.005)	(0.008)	(0.005)
First wave effect (δ_5)	0.000	0.008	-0.077***	-0.007	-0.017	-0.002
	(0.014)	(0.021)	(0.016)	(0.008)	(0.012)	(0.002)
Second wave effect ($\delta_5+\delta_6$)	0.012	-0.007	0.041	0.005	0.007	0.001
	(0.018)	(0.019)	(0.025)	(0.005)	(0.005)	(0.009)

Note: The first row in each panel reports the coefficients of interest estimated from equation (1), while the second and third row show the coefficients of interest estimated from equation (2). The sample includes all children in our school survey with non-missing information on the outcome variable. The dependent

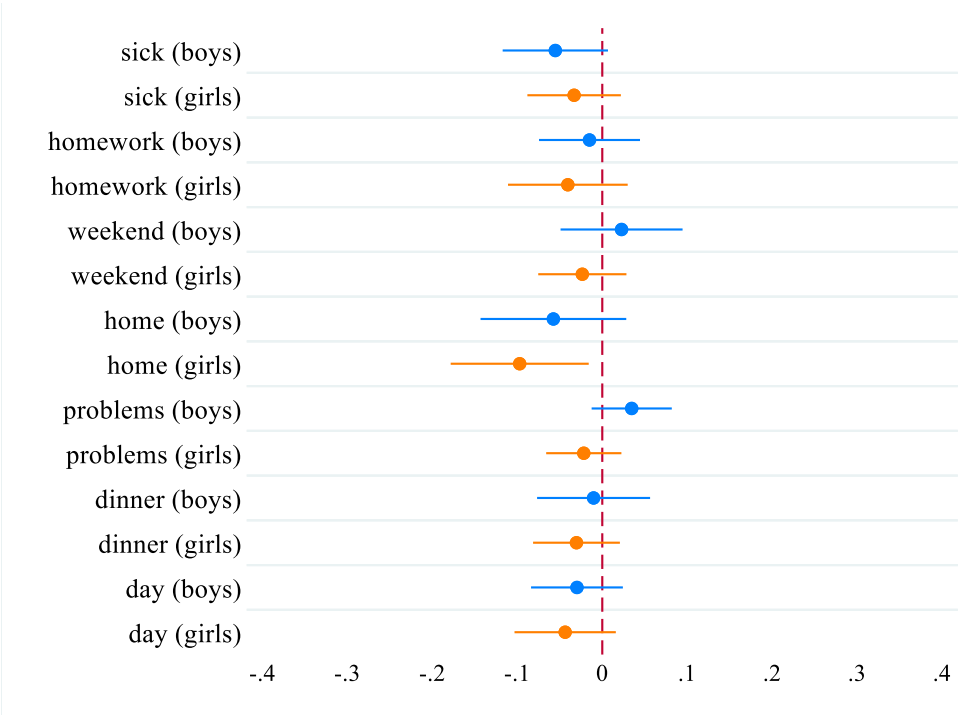
variable is constructed from responses to question 3 of the Questionnaire in Appendix B.2: *"Imagine a family with a child who is still too young to go to school (under the age of 3). What do you consider the best way to organize their family and work life?"*. Each panel corresponds to one of the possible response options. All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 31, as well as school-visit fixed effects. Controls include binary indicators for female children, mother and father university education, immigrant status of the child and the parents, and a dummy for first-born children. In Colum (2) and (5) we restrict the sample to children born in January to June. In Column (3) and (6) we restrict the sample to the schools that were surveyed in both waves. Standard errors (clustered by school-grade) are shown in parentheses. (*** 99%, ** 95%, * 90%)

Figure C.1: The effect of paternity leave on father's contribution to chores and childcare activities (by gender of the child)

Panel A. Father's relative contribution to household chores



Panel B. Father's relative contribution to time with child



Note: Each coefficients comes from a different regression. The sample includes all children in our school survey with non-missing data for each variable. The reported coefficients are for the interaction of the indicator for cohort 2007 (*TreatedCohort*) and birthdate between March 24 and December 31 (*After*). The bars show 95% confidence intervals. Standard errors are clustered by school-grade. The dependent variables are, in Panel A, five indicators that take value 1 if the child reports that the chore is done by both

parents equally, mostly the father, or only the father (and 0 otherwise), and in Panel B, seven indicators that take value 1 if the child reports that the person who does the respective activity is mostly or only the father (see the questionnaire in Appendix B2, question VI.3 for the list of activities). All specifications include year of birth fixed effects and a dummy for children born between March 24 and December 1, as well as school-visit fixed effects. Additional controls include binary indicators for mother and father university education, immigrant status of the child and the parents, and a dummy for first-born children.

Figure C.2: The data collection process

Note: Mobile laboratory installed in one of the schools.

Note: Students at one of the schools answering the questionnaire.

Appendix D: Pre-registration and summary of the additions and deviations from the Pre-analysis Plan

The paper tests the main hypothesis, implements the main methods and analyzes the primary and secondary outcomes variables as described in the pre-analysis plan (PAP). Below we summarize (a) analyses implemented as planned, (b) helpful additions that strengthen the argumentation and improve interpretation and rigor, and (c) deviations from the PAP. The study was approved by the Institutional Review Board at Universitat Pompeu Fabra (registered as 2020-02-10 under "Can public policy change gender norms? How paternity leave affects children").

(a) Analyses implemented as pre-specified in the PAP

We implemented the following elements as described in the PAP:

- tested our main hypothesis: "eligibility for paternity leave led to more gender egalitarian views and less gender-stereotypical behaviors and choices among the children";
- results on all preregistered primary outcomes are reported (except changes in the construction of the gender attitudes index and the occupational choice as explained below)
- results on all preregistered secondary and additional outcomes;
- results on preregistered heterogeneity analyses;
- results using a global index to address concerns related to multiple hypotheses testing;
- estimations based on the preregistered difference-in-differences and regression discontinuity design

(b) Helpful additions and presentation choices

- **Perceptions of social norms as primary outcomes:** We report results on children's perceptions of social norms regarding maternal and paternal employment among our primary outcomes. This decision reflects growing awareness among economists, supported by rigorous empirical evidence (e.g., Bursztyn et al. 2020; Bursztyn et al. 2023), that both own beliefs and beliefs about others' opinions are relevant for behavior.
- **Children's human capital development:** We exploit administrative data on educational outcomes from Idescat (Catalonia's Statistical Institute). This data source allows us to explore potential effects of paternity leave exposure on children's human capital development, which are only partially covered by available outcomes in our survey data.
- **Mechanisms:** We use several primary and secondary data sets to strengthen the evidence on mechanisms. Specifically, we provide evidence on the effect of paternity leave on fathers' contribution to childcare and household chores from several sources (Spanish Time Use Survey 2009/10, Spanish Fertility Survey 2018, own data sources collected online and by IPSOS in 2020 with the purpose of studying within-household behavior during the Covid-19 pandemic, and SSES 2023) covering the entire course of childhood.

(c) Deviations from the PAP

- **Gender attitudes index:** In the PAP, we anticipated creating the gender attitudes index combining 12 questions: seven questions from the standard gender-attitude

battery developed by the International Social Survey Programme (ISSP), two additional questions ("When a woman earns more than her husband, there are certainly problems" and "Both the mother and father should take leave from work for a few weeks after the birth of their son or daughter'), which we added after the pilot for exploratory purposes, and two questions on children's own beliefs regarding maternal and paternal employment when caring for a young child. Regarding the two additional gender-role-attitude questions, we do not include them in our main gender-role-attitudes index because of sample size issues (including them would require dropping the three pilot schools; please also see below for sample size issues). However, we do include them in robustness analyses (see Table C1). We also decided to present **results on children's own beliefs about parental employment separately** (we do include them in the global index). We do so to allow for better comparability with the existing literature on the formation of gender attitudes and norms.

- **Definition of children's behavior/contribution to household chores:** The PAP was rather unspecific regarding the construction of the index of children's behavior/contribution to household chores. In line with our main hypothesis, we construct a single variable measuring children's contribution to counter-stereotypical chores, defined as those chores where the other gender contributes more, on average (using descriptive statistics based on pre-reform children). Specifically, we combine questions on children's day-to-day contribution to five tasks (laundry, grocery shopping, small repairs, cleaning the house, and cooking), adding children's contribution to "other-gender tasks" and subtracting those to "own-gender tasks", respectively. For transparency, we also report results for each task separately.
- **Definition of children's occupational choice:** We construct an indicator of "counter-stereotypical occupations" that takes the value 1 when a child selects an occupation that is among the three most popular occupations among the opposite sex. The preregistered variable (the share of "own-gender workers" in the aspired occupation based on administrative or Labor Force Survey data) was not feasible, because children frequently report occupations that are not captured in administrative data (e.g., influencer, YouTuber).
- **Sample size:** We had planned to survey about 3,000 children in 25 schools: 15 schools in Catalonia between May 2019 and February 2020, and another 10 schools in Andalusia between March and June of 2020. Due to the outbreak of the COVID-19 pandemic, we had to interrupt data collection after visiting the schools in Catalonia, and were unable to resume, as regular school instruction was severely disrupted for a prolonged time after the pandemic. We conducted a second wave of data collection between November 2024 and April 2025, which allows us to provide evidence on longer-term effects.
- **Identification strategy:** Our pre-analysis plan specified both an RDD and a DiD as candidate main specifications, with the DiD included primarily because the RDD specification is demanding in terms of data requirements. Given our smaller-than-planned sample (see previous point), we opted for the DiD as our main specification. This choice remains appropriate even after the second wave of data collection, conducted five years later. This is because we estimate effects separately by wave, in order to account for the age difference between children across waves. We report RD and RD-DiD estimates as robustness checks (see Table A4).