The trade-offs between income, leisure, and childbearing: Experimental Evidence from Multiple Countries

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Extended abstract – Please do not cite without permission

We field a seven-country survey of respondents aged 20–49 to examine how adults value income and time trade-offs when deciding whether to have a child. The survey presents respondents with hypothetical couples considering either a first or a second birth; attributes include the woman's age, household income, the woman's share of that income, as well as expected changes in financial circumstances and free time after birth. Respondents evaluate these profiles, forcing trade-offs across domains. The design yields the relative importance of each attribute and how it varies across countries and by respondent gender. We test the extent the motherhood penalty matters for childbearing preferences, the salience of income for first versus second births, and how effects vary with the woman's age. Results should illuminate which factors most strongly shape childbearing decisions and inform policymakers interested in income transfers and regulating time constraints.

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Introduction

Fertility is now below replacement in most of the world, including virtually all of Europe and North America, much of Latin America and South and West Asia, and large parts of East Asia. In recent years, several countries have hit record lows: the United States has fallen to 1.64, and Italy reached 1.18 in 2024. At the same time, researchers report a widening gap between the number of children people say they want and the number they actually have. Although period fertility has fallen across countries, stated ideals have remained strikingly stable: most adults still prefer about two children, often at or slightly above replacement level which has led to the opening gap (Adsera, 2006; Testa, 2007; Morgan & Rackin, 2010; Beaujouan & Berghammer, 2021; Sobotka & Beaujouan, 2021). However, recent surveys point to the fact that childbearing has become less central to people's lives. Measuring preferences in isolation without confronting individuals with other dimensions of this choice will affect their responses. On one hand, there may be some social desirability bias in the answer. Second, individuals do not internalize other trade-offs when answering questions in isolation. In a recent study, for instance, we conducted a multi-country survey in low fertility contexts in which we asked respondents to evaluate different hypothetical families. The number of children was included among the dimensions of those families. We found that, while parenthood was highly valued, the exact number of children was less important when respondents also considered other dimensions such as union status, gender roles or economic conditions (Aassve et al. 2024).

As a natural follow-up of these previous findings and to start unveiling the different mechanisms behind the ultimate childbearing decision, we are fielding a new survey among young adult aged 20-49 in seven countries (US, Italy, Spain, France, Mexico, Argentina and China). Our multicounty survey includes countries of different levels of fertility, female labor force participation and income. In particular, the sample includes some of the countries that have experienced very low fertility levels for many years (China, Spain, Italy), some that have undergone recent decreases from levels hoovering around replacement (United States and France) and finally, some that have undergone very fast demographic transition and are now just below replacement level (Mexico) or at very low levels (Chile). These countries also display very different levels of perceived gender norms

Our survey includes a conjoint experiment in which respondents are asked to compare two vignettes depicting the situation of two couples making childbearing decisions. As we explain below, we examine the extent to which respondents think that expected changes in a couple's income and free time, resulting from the birth of a child and conditional on the couple's current circumstances, would make them more or less likely to have a child. The final sample for each country is around 2,500 men and women in reproductive ages, with or without children already.

While we still in the process of data collection, we have previous ample experience conducting similar survey experiments on a range of questions (e.g., Aassve et al. 2024) and expect to complete this survey in a timely manner (no later than the end of November 2025). After that, the

analysis of the data should take place during-Winter, early Spring with ample time to present at EPC 2026.

Main research questions and relevant literature:
Building on an extensive literature – mostly in economics, but also in demography and sociology, on the role of economic conditions and gender gaps in the labor market in shaping fertility decisions, this paper focuses on assessing how, conditional on current circumstances, expected changes in a couple's income and free time after the birth of a child affect respondents' likelihood of having one.

A first strand of relevant literature relates to the original *micro-fertility models* by Becker and colleagues that already focus on the fact that increases in income should lead to an increase in the number of children, conditional on children being normal goods. Later refinements of these models posited that it is the combination of the number and quality (characteristics) of those children's that matter and that drive couple's expenditures and choices (Becker and Lewis 1973). Furthermore, as women enter the labor force, the role of changes in the share of income contributed by the woman was highlighted as key to those decisions: higher women's wages have a potential positive impact on childbearing via an income effect; but, at the same time, higher women's wages are associated with higher opportunity cost of childbearing (Galor and Weil 1996). The literature notes the difficulty of separating both income and substitution effects from shocks to the market such as changes in the prevalence of unemployment. Recent papers have used differential external shocks in sectors in which men's or women's are over-represented to tease out, in part, the differential mechanism (e.g. see Autor et al 2019; Schaller 2016). In our experimental set up, we separate levels and changes of household and individual income to tackle some of these issues.

A second relevant strand of the literature focuses on the gap between men and women's income after the birth of a child; what is known as *motherhood penalty*. There is a consensus on the existence of a *motherhood penalty*, suggesting that intra-household specialization, changes in hours worked, and type of job become more salient with parenthood (Adsera and Querin 2023, Cukrowska-Torzewska & Matysiak, 2020; Glauber, 2007; Killewald & Gough, 2013; Kleven et al., 2019, 2022; Lorenti et al., 2024). The magnitude of this penalty may act as a deterrent for couples, particularly women, when making decisions about childbearing. Similarly, penalties related to reductions in free time may influence childbearing decisions for both men and women. In our experiment, we vary the expected change in women's income after the birth of a child to examine whether respondents react differently to the extent of the expected motherhood penalty and loss of leisure when evaluating potential childbearing scenarios.

A third strand of relevant literature links *gender norms*, *intra-household bargaining*, and the division of labor within couples to fertility outcomes (e.g Lundberg and Pollak 1996 for review of key concepts). This line of research, building on McDonald's (2000) theory of gender equity and

subsequent work by Esping-Andersen and Billari (2015), highlights how inconsistencies between gender equality in individual and family spheres can depress fertility (e.g., García-Pereiro et al. 2025). In our vignettes, women contribute different shares of household income, and that income changes after the birth of a child. We are interested in examining whether this affects respondents' views on childbearing decisions, and, most importantly, whether these effects differ by sex.

Finally, extensive literature studies the evolution of *age norms for childbearing* (e.g. Lazzari et al 2024). In our experiment, we vary the age of the woman considering having another child to explore how it interacts with the other dimensions of the vignette.

Methods

While the content of the full survey is much broader and with a particular emphasis on life-course and age norms[1], this paper will center primarily on results of the conjoint experiment. A conjoint analysis is a multidimensional experimental method used to uncover the principles that shape social norms and attitudes (Auspurg & Hinz, 2015; Imai; Bansak & Hainmueller). Respondents evaluate multiple, randomly assigned descriptions ("vignettes") that systematically vary across several factors or dimensions. In our case, participants assign a score to sets of alternative scenarios in which the attributes of the couple making the decisions are randomly "placed" across profiles. Because each attribute level is randomized, we can estimate the relative influence of each attribute on respondents' evaluations (how much each factor shifts ratings of the hypothetical couple deciding whether to have a child) while holding the others constant and allowing for comparisons across attributes. This lets us study decision-making under realistic trade-offs.

Half of the respondents will be presented with the description of two childless heterosexual couples who are making the decision to have their first child. The other half of the sample will be presented with couples who already have a child and are deciding whether to have a second child. Those couples differ with respect to the age of the woman, household income, share of the income that the woman contributes to the household, expected changes in income within the first three years after the birth of a child as well as expected changes in free time available both to the man and the woman after the birth of the child. After seeing these combinations, participants will be asked to imagine they were in each of those two scenarios and choose in which one of them they would prefer to have a child. After that they are asked to evaluate the likelihood that they would have a child in each case.

Our dependent variables will be the choices between pairs of vignettes and the ratings across vignettes. We will estimate the Average Marginal Component Effect As proposed by Hainmueller, Hopkins, and Yamamoto (2014). The AMCE estimates the marginal effect of a treatment condition

[1] The survey has been conducted within the task 3.6 "Gender and generation make aging", Spoke 7 at Bocconi University, of the Italian PNRR (National Recovery and Resilience Plan) project "Age-It – Ageing well in an ageing society" PNRR Extended Partnership M4C2.
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in a vignette averaged over the joint distribution of other treatment conditions concurrently administered. This will allow us to estimate the relative importance of, for example, the expected loss (or gain) of income over the expected change in free time of each member of the couple after childbirth and in this case provide a monetary evaluation for that change. Given the sample size we will also explore heterogeneity on individual estimates (IMCEs). Finally, we will analyze the relative weight of each one of the attributes on the overall variation of ratings. Including, as already said, countries at different levels of fertility, female labor force participation and income, will allow us to evaluate the extent to which the relative importance of the different components is similar across these dimensions.

We will study whether the perceived importance of dimensions differs between men and women. Are women evaluating their change in income as most important than men do? Do men care more about the change of leisure than women do? Is the age of childbearing as important for men as for women? We will test whether there is meaningful heterogeneity by the respondent's sex.

Besides the conjoint experiment, the survey includes extensive background demographic questions on the respondent him/herself, family background and own parents and own use of time. In addition, it includes questions related to childbearing preferences, social norms around gender roles and timing of life-course and age-norms. Many of those questions are drawn from existing surveys on topics such as the US National Survey of Family Growth (NSFG), the International Social Survey Programme (ISSPP) and the multi-countries Generation and Gender Survey (GGS). This will allow us to compare our responses with existing surveys and to situate the conjoint analysis within the current literature. Most importantly, using these additional questions we will conduct heterogeneity analysis using interactions and sample stratification within each country.

Main expected findings

Consistently with the relevant theoretical (and empirical) frameworks revised above, we expect higher household income to be positively related to childbearing intentions. However, the expected relative strength of this relation for the transition to parenthood compared to higher parity is somewhat ambiguous (as we will detail in the paper). Second, we expect that higher motherhood penalty will deter transitions to births and, possibly, the impact might be larger among women. Third, the positive (negative) impact of increases (decreases) in both household and woman's income after three years after birth may be tempered by their initial level. Finally, even though both age and income are correlated, earlier ages may be more attractive for transitions to adulthood (particularly for women in relation to fecundity and health), conditional on income. We expect these results to vary by the age of respondents and characteristics of country such as gender norms or female labor force participation.

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