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Optimistic Divorce Beliefs and the Life-Cycle Economics of the Family*

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Abstract

Nearly half of U.S. marriages end in divorce, yet spouses plan as if theirs will not. Our survey shows married individuals underestimate their divorce risk against three benchmarks. We embed these beliefs in a life-cycle model with endogenous divorce, fertility, and learning-by-doing human capital. Optimistic couples specialize more and have children earlier, leaving secondary earners with less human capital, which persists after divorce. Correcting beliefs closes about 6% of the gender earnings gap and 7% of the long-run child penalty. The expected welfare cost of optimism is small but concentrated among failed marriages.

JEL Codes: D10, D13, D84, D87, D91, E24, J12, J13, J18, J22

Keywords: Intra-household bargaining, Divorce, Subjective Expectations, Human Capital, Gender Equality, Fertility

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1 Introduction

> *We had made an unspoken bargain: he would work all the time and I would take care of the kids all the time. I resented this sometimes, usually when I was stressed, when one of the kids was sick, or when they were melting down or something. But most of the time, I liked his fervent commitment to his work. It was impressive, and it seemed honorable to me, to put so much time in, to be such a dutiful employee, to be working so hard for our family's long-term financial security.*
>
> — Belle Burden, *Strangers: A Memoir of Marriage* (2026, p. 72 Part II)

Divorce is a common life event across high-income countries. In the United States, 46% of the 1957–1964 birth cohort who ever married had divorced at least once by age 55 (Aughinbaugh and Rothstein 2024), with the highest hazard in the first decade of marriage. Individuals nevertheless appear largely unaware that this risk applies to them. In an original survey of married individuals in the United States, we document that respondents substantially underestimate their own probability of divorce, and that this gap is widest in the early years of marriage. This finding is consistent with smaller-scale evidence (e.g. Baker and Emery 1993; Campbell et al. 2012; Mahar 2003; Fowers et al. 2001; Boyer-Pennington et al. 2001) and with a long-standing psychology literature documenting unrealistic optimism about future life events (e.g. Weinstein 1980).

Beliefs about divorce matter because they govern decisions within marriage whose consequences are long-lasting and hard to reverse. Spouses jointly decide how to divide time between market work and home production, how much to save, and when and how many children to have. Marriage generates gains from resource pooling, economies of scale, and the joint production of household public goods, all of which are lost upon dissolution. After divorce, each spouse must rely largely on his or her own earning capacity, and human capital, unlike the couple's joint savings, stays with the spouse who accumulated it. Couples thus face a trade-off between the gains from specialization and each spouse's self-insurance against divorce, and the perceived probability of divorce determines how it is resolved. The "unspoken bargain" in the epigraph resolves this trade-off entirely in favor of specialization, a choice that pays off only if the marriage lasts. Fertility sharpens this trade-off. Children typically arrive when returns to labor-market experience are highest, custody is usually assigned to one parent, and births, unlike time allocation, cannot be reversed: choices made under optimistic beliefs early in marriage may therefore shape outcomes long after those beliefs have faded.

This paper asks how optimistic beliefs about divorce affect specialization and fertility within marriage, and what these choices imply for financial vulnerability after divorce, for gender inequality, and for welfare.

We make three contributions. First, using an original survey of married individuals in the United States, we document divorce beliefs across genders and marriage durations and show how they relate to household choices.[1] Second, we show that these beliefs are systematically optimistic, rela-

[1] Divorce beliefs have attracted increasing attention in recent work. We discuss this literature, and how our contri-

tive to three distinct benchmarks. Third, to the best of our knowledge, we are the first to introduce optimistic divorce beliefs into a dynamic structural model of household decision-making with endogenous divorce, savings, fertility, and human capital accumulation. Disciplined by the survey, the model quantifies how optimism shapes choices during marriage and how its consequences persist after the marriage ends.

We begin by documenting these beliefs. We field an original two-wave survey of 2,595 married individuals in the United States, all in their first marriage and living with their spouse, and elicit probabilistic beliefs about divorce at different horizons. A stated probability is not by itself evidence of optimism, because each respondent's true divorce risk is unobserved and some marriages may genuinely be stable.

We therefore compare stated beliefs with three benchmarks. First, respondents place their own ten-year divorce probability 16 percentage points below that of comparable couples. Second, when shown the population divorce rate, two-thirds of respondents do not revise their belief at all, and these are the respondents who rate themselves furthest below comparable couples. Third, relative to a divorce probability predicted from a rich set of respondents' characteristics by a random forest trained on realized PSID marital histories, 74% underestimate their risk, by 7.8 percentage points on average and by 15.4 among those married less than four years.

Beliefs also trace a hump over the cross-section of marriage duration, rising over the first decade and receding thereafter, a pattern consistent with the documented life-cycle profile of match quality. Finally, beliefs are associated with the decisions the model is built around. Respondents who perceive their chance of staying married to be higher specialize more within the couple and plan to have children earlier. These associations remain among respondents with the same predicted divorce risk, so they do not merely reflect differences in observable risk.

Building on our survey evidence, we set up a structural household life-cycle model in which spouses jointly choose consumption, savings, and each spouse's time allocation between market work, home production, and leisure. Marriages are sustained by a match quality that evolves stochastically over the life cycle, and divorce arises endogenously when the marriage ceases to satisfy both spouses' participation constraints. A share of couples are *optimists*: they perceive a premium on their own match quality that decays with marriage duration, so the bias is largest in the early years of marriage, as in the survey. The remaining couples hold rational expectations (*realists*). Couples further decide whether and when to have children. Home production yields a good that both spouses consume and that becomes more important in the presence of young children. Alongside the heterogeneity in beliefs, we allow for ex-ante heterogeneity in human capital within and across couples. Human capital accumulates through learning-by-doing, with market hours raising expected future human capital more strongly at younger ages, so that the years of fastest wage growth coincide with the child-rearing phase. Couples therefore face a trade-off between market work and home production for both spouses. After divorce, assets are split,

bution relates to it, in Related Literature below.

custody is assigned stochastically, and ex-spouses produce home goods separately.

We quantify the model using our survey, the PSID (1999–2019), and the American Time Use Survey linked to the Current Population Survey (ATUS-CPS, 2003–2019), targeting life-cycle moments of time use, wages, fertility, savings, and divorce. Our survey disciplines the belief parameters directly. We set the share of optimistic couples to the share of respondents who underestimate their divorce risk relative to the statistical benchmark, and calibrate the magnitude of the bias and its decay over the marriage to the belief profile by marriage duration documented in Section 2.

Using the quantified model, we compare couples who differ ex-ante only in their beliefs (optimists and realists). Because the share of optimists is likely an upper bound, and the bias is estimated from average beliefs, the estimated bias is a lower bound, and so are the differences in behavior and welfare between optimists and realists reported below.

Early in marriage, when the belief bias is strongest, optimistic couples specialize more within the household than realistic couples. The additional specialization falls mainly on the secondary earner, who supplies less market work and more home production than realistic secondary earner. Because optimists underestimate the probability of divorce, they undervalue human capital as insurance against it, and this matters most for the secondary earner. Optimistic couples also have their first child about a year earlier and, on average, about 8% more children. This moves the child-rearing years into the phase when returns to labor-market experience are steepest, which strengthens the incentive to specialize.

Optimistic couples also stay married longer, because they remain in matches that realists would leave. Their stronger specialization reinforces this effect by lowering the secondary earner's outside option. As the bias decays, divorce rates converge across belief types.

The belief bias fades quickly, with a half-life of about 2.6 years, and differences in time allocation between belief types disappear within the first decade of marriage. However, the earlier and additional children cannot be reversed, and the human capital the secondary earner forgoes in these years is slow to recover because the return to market hours in human capital declines with age.

Whether human capital recovers depends on whether the marriage lasts. In marriages that last, the secondary earner catches up over the second decade. In marriages that end, the shortfall is carried out of the marriage, and divorce typically comes at an age when additional hours do little to rebuild human capital. By middle age, the human capital gap between optimistic and realistic secondary earners arises almost entirely among divorcees, and divorced women who held optimistic beliefs are more often poor. The financial cost of optimism thus lies not in divorcing more often but in being less well prepared when divorce occurs. In the terms of the epigraph, the family's "long-term financial security" rests on the primary earner's human capital, and that leaves with him when the marriage ends. Comparing divorcees directly even understates this gap, because optimistic secondary earner leave early marriages only when their outside option is

particularly strong, so those who divorce early are positively selected.

The effects of optimistic divorce beliefs are a quantitatively relevant, though not dominant, source of gender inequality. If every household held correct beliefs, the gender gap in annual labor income would be about 6% smaller and the gap in human capital about 7% smaller. The contribution of optimism to the child penalty grows as children age, from 3% in the first six years after birth to 7% six to ten years after birth.

The welfare effects of optimism are state-contingent: optimism is a bet on the marriage. Evaluated at the true match quality, the ex-ante cost of optimism is small, 0.27% of consumption, because the additional children optimists have offset their losses in consumption, home production, and match quality. This average conceals large and opposite effects across states of the world. When the match turns out badly, optimism costs 8.6% of consumption, because optimists remain in marriages that realists would leave. When it turns out well, optimism yields a gain of 4.6%, because optimists stay through temporary bad spells that lead realists to leave, which allows optimists to reap the benefits of higher specialization. Within the couple, the bet is shared almost equally while married; after divorce, wives bear more of its cost through lower consumption.

Related Literature. We relate to three strands of literature: work on subjective expectations and decision-making under uncertainty (Bachmann et al. 2023); the family-economics literature that treats the couple as the decision unit and models household choices in the presence of divorce (e.g., Doepke and Tertilt 2016; Chiappori and Mazzocco 2017; Greenwood et al. 2017); and a small but rapidly growing set of papers on divorce expectations, which lies at the intersection of the two.

The first strand studies how individuals form expectations about aggregate or individual outcomes and how those expectations shape behavior (see Manski 2004 and Bachmann et al. 2023 for surveys). Applied work has concentrated on labor market outcomes — transitions between labor market states, job loss, job finding and wage offers (Mueller et al. 2021; Conlon et al. 2018; Balleer et al. 2026; Adams-Prassl et al. 2023)[2] — and on returns to education (Attanasio and Kaufmann 2014; Delavande and Zafar 2019; Wiswall and Zafar 2021), health and survival (Grevenbrock et al. 2021; Foltyn and Olsson 2024) and income (Exler et al. 2025; Rozsypal and Schlafmann 2023). A related body of work uses randomized information treatments to show that expectations causally shape decisions, for both households and firms (Coibion et al. 2020, 2023). Closest in spirit is Gong et al. (2022), who follow college students' early expectations about marriage, children and labor supply and compare them with realized outcomes; they do not elicit expectations about divorce. Two gaps in this literature are particularly relevant for our purposes. First, divorce, despite being a household risk with large economic consequences, has received relatively little attention. Second, we know little about how individuals assess the probability that their own marriage will end and whether these beliefs shape couples choices within marriage. Appendix S2 in the supplemental

[2]See Mueller and Spinnewijn (2023) for a recent survey.

material reviews the earlier, smaller-scale evidence on divorce optimism in more detail.

The second strand models household decision-making with divorce. This literature assumes throughout that households hold rational expectations about their own dissolution risk, whether divorce is exogenous (e.g. Adda et al. 2017; Fernández and Wong 2014; Cubeddu and Ríos-Rull 2003; Jakobsen et al. 2026) or endogenous (e.g. Doepke and Kindermann 2019; Fernández and Wong 2017; Foerster 2025; Greenwood et al. 2016; Low et al. 2025; Lafortune and Low 2023; Mazzocco 2007; Reynoso 2024; Voena 2015; Xie 2026). We relax that assumption. Because divorce in our model arises endogenously, beliefs distort not only the allocation of time and resources within marriage but also how long the marriage lasts, and therefore how long these allocations accumulate, for instance in the secondary earner's human capital. This feedback is absent in frameworks in which divorce risk is a parameter. Optimistic couples specialize more and stay together longer, so the human capital gap between spouses widens and persists beyond the marriage. This makes optimism a new candidate driver of gender gaps in labor market outcomes and of the child penalty.

Relaxing rational expectations also changes how welfare should be evaluated in these models. Evaluated at true match quality, optimism has a small average cost that conceals large and opposite effects across states: optimists lose when the match turns out badly, because they stay in marriages that realists would leave, and gain when it turns out well. Within marriage, spouses share consumption, children and match quality, so gender differences arise mainly after divorce: divorced optimist wives consume less than divorced realist wives, while husbands gain more leisure from optimism. Household-level welfare measures therefore understate how unevenly the consequences of optimism fall on women and men once a marriage ends.

Our results on the child penalty connect this strand to a large applied literature. Reduced-form work documents large and persistent earnings losses for mothers after the first birth (Angelov et al. 2016; Kleven et al. 2019), and structural models in this strand attribute them to specialization and the career costs of children under rational expectations (e.g., Adda et al. 2017). Optimism adds a belief-based channel that operates through fertility timing as well as through completed fertility. Delaying motherhood raises women's earnings (Gallen et al. 2026), and quasi-random variation in birth timing shows that much of the penalty depends on when children arrive (Lundborg et al. 2017). Couples who are optimistic about their marriage have less reason to delay, so they have children earlier, when specialization is most costly for the secondary earner's human capital.

The third strand sits between the first two. It brings the elicitation methods of the expectations literature to the divorce risk that family models take as known, and two contemporaneous papers are closely related to ours. Delavande et al. (2026) elicit subjective divorce probabilities from both spouses within US couples and show that higher perceived risk is associated with more individualized financial arrangements and, for women, with greater expected labor force attachment, consistent with the belief–choice associations that we document. Costa-Ramón et al. (2026) randomly shift beliefs about separation risk among Swiss female public-school teachers and show

that treated women increase financial insurance and, one year later, labor supply. Their experiment provides causal evidence on the link between beliefs and specialization.

Our paper differs from these studies in three respects. First, we establish the bias rather than merely the belief, using three independent benchmarks. Second, our survey covers married men and women across the full range of marriage durations and links their beliefs to a rich set of household choices and intentions. This lets us trace how the bias evolves over the course of the marriage rather than measure it at a single point, and test the model's implications against observed choices. Third, we embed the bias in a life-cycle model with endogenous divorce. Because optimists and realists exit marriage at different rates, the model can separate a decay in optimistic beliefs from selection in explaining why the bias declines with marriage duration. It traces how the bias shapes specialization, fertility, and the accumulation of human capital, and, more importantly, what this means *after* the marriage ends and for welfare. The model also provides a framework for evaluating policy when households misperceive their divorce risk.

The structure of the paper is as follows: Section 2 describe our original survey data. We outline our model in Section 3. Section 4 discusses the quantification of the model. We describe the effects of overoptimistic expectations in Section 5. Section 6 concludes.

2 Survey About Divorce Beliefs

This section presents our survey of subjective divorce beliefs.[3] We describe the survey procedure and sample, document key patterns in the data, and provide evidence that beliefs are systematically biased toward optimism. We then derive testable implications for the model we develop in the next section and motivate its core assumptions.

2.1 Survey Administration

We recruited our U.S. sample in two waves—November–December 2024 (wave 1) and February–April 2025 (wave 2)—through Prolific, an online survey platform widely used in the social sciences (Haaland et al. 2023). Guided by a power analysis and our available research funds, we targeted 3,000 respondents for a 15-minute survey. In both waves, we pre-screened respondents to be U.S.-based, in their first marriage, and living with their spouse. Wave 1 covers ages 20–65, while wave 2 oversamples younger respondents aged 18–45. This reflects our particular interest in how divorce beliefs shape early life-cycle decisions, such as career choices and fertility, whose effects tend to persist over time. Section S1.1 in the supplemental material provides more details on the survey administration

Both waves share a common core of the divorce belief questions described below, together with socio-demographic characteristics of both spouses, including family composition, marital history, and job-related information. Wave 1 additionally collects a richer set of characteristics, which we

[3]Throughout the paper, we use the terms "expectations" and "beliefs" interchangeably. Section S2 in the supplemental material reviews prior evidence on divorce beliefs, particularly the prevalence of (over-)optimism.

use to predict individual-level divorce probabilities. Wave 2 instead focuses on forward-looking decisions, such as fertility intentions, and includes an information provision experiment. The full set of survey questions is provided in Appendix S5 of the supplemental material. Because Prolific recruits individuals rather than couples, we survey one spouse per couple, who reports the characteristics of both spouses. Our belief measures therefore capture one spouse's assessment of the couple's divorce risk, and we cannot measure disagreement within couples. As we show later, beliefs do not differ significantly by gender or breadwinner status (Table S1.7) and our main specifications control for the respondent's gender.

The core of the survey elicits respondents' beliefs about their own and their peers' probability of divorce. We elicit *probabilistic* beliefs in line with state-of-the-art practice (Bachmann et al. 2023), which offers both inter- and intrapersonal comparability and a straightforward mapping into the parameters of our model. Because respondents may struggle with probability questions, wave 1 additionally included comprehension aids following the Survey of Consumer Expectations and a confidence follow-up after each belief question (Appendix S1.1). All specifications control for the survey wave to account for these differences.

We further varied the framing of the belief questions, asking respondents about the probability of divorce or, equivalently, about the probability of staying married. In wave 1, each respondent was randomly assigned to one framing. In wave 2, both framings were asked of each respondent.[4] Under each framing, both waves elicit beliefs over the next 5 and 10 years; wave 1 adds the lifetime horizon and wave 2 the next year. Wave 1 also asks, in an open-text question, how respondents would change their plans if their divorce probability were much higher (or their probability of staying married much lower). Midway through wave 2, respondents are shown U.S. Census divorce rates and asked again about their own divorce probability. Table S1.1 summarizes the differences between survey waves.

2.2 Sample

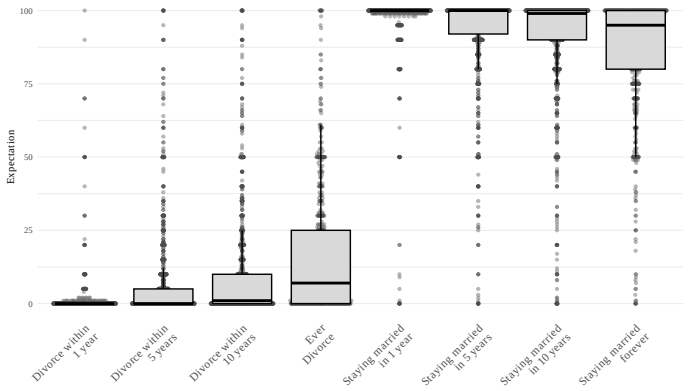
A total of 3,580 respondents completed the survey and met the pre-screening criteria (1,798 in wave 1 and 1,782 in wave 2). After exclusions, the final sample consists of 2,595 respondents.[5]

Table S1.2 compares our sample with married individuals in the 2024 American Community Survey (ACS) who live with their spouse, are in their first marriage, and are aged 18–65. Because wave 2 oversamples younger respondents, our sample is younger than the ACS population (36 vs. 45 years on average), with shorter marriages and more young children. It is also more educated (70 vs. 55 percent with a college degree), and Black respondents are over-represented. The

[4] This design draws on the survival belief literature, which shows that framing questions about mortality rather than survival can inflate respondents' beliefs (Bernheim and Taubinsky 2018).

[5] We removed 200 duplicate responses within waves, 594 respondents who failed attention checks, 33 whose log completion time was more than three standard deviations from the wave-specific mean, 23 with invalid completion codes, and 135 who took part in both waves, retaining their wave 1 response. In the final sample, the mean completion time is 15.8 minutes and the median 13.3 minutes.

Figure 1: Subjective Beliefs of Divorce and Marriage Survival Across Time Horizons



Notes: Distribution of subjective probabilities (0–100) of divorcing or of staying married, by horizon; waves 1 and 2 pooled. The 1-year horizon is asked only in wave 2 and the ever/forever horizon only in wave 1. Each point is one respondent; boxes show the median and interquartile range, and whiskers extend to 1.5 times the interquartile range.

share of women, the employment rate, and average labor income are similar. Our main specifications control for marriage duration, birth cohort, and both spouses' education.

2.3 Subjective Divorce Beliefs

We start by describing the beliefs elicited in the survey. Figure 1 shows their distribution at each horizon and under both framings. Mean divorce beliefs rise from 7.1% at the 5-year horizon to 10.0% at the 10-year horizon and 16.4% for ever divorcing, while mean stay-married beliefs decline from 92.8% to 89.7% and 85.8% over the same horizons. Most respondents consider divorce unlikely. At the ten-year horizon, about three quarters put the probability of divorce below 10% under either framing, and more than half still do so for ever divorcing.[6]

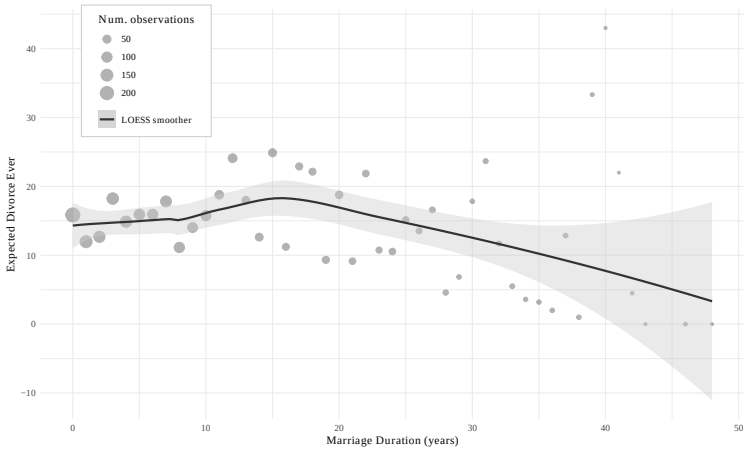
The framing of the question has little effect on these answers. At the five- and ten-year horizons, the mean divorce probability under the divorce framing (7.1% and 10.0%) is close to 100% minus the mean stay-married probability (7.2% and 10.3%), and neither difference is statistically significant ($p = 0.85$ and $p = 0.67$).

Figure 2 plots the probability of ever divorcing against marriage duration. Figure S1.1 in the supplemental material shows the same plot for other horizons. The profile is hump-shaped. Respondents in the first three years of marriage report a mean probability of 14.7%, those married 11 to 15 years report 20.0%, and those married more than 25 years report 11.2%. The shape resembles the life-cycle profile of marital quality in panel studies, which declines after the arrival of children and recovers later.[7]

[6] Bunching at 50%, often interpreted as epistemic uncertainty (Bruine de Bruin et al. 2000), accounts for only 2.0% of responses.

[7] VanLaningham et al. (2001) document a U-shaped pattern in marital happiness using the National Survey of Families and Households, Gorchoff et al. (2008) find a similar pattern in the Berkeley and Oakland Growth Studies, and Lawrence et al. (2007) report a cubic profile in the Early Years of Marriage Project.

Figure 2: Subjective Beliefs to Ever Divorce by Marriage Duration



Notes: Expected probability (0–100) of ever divorcing, by marriage duration; wave 1. Points are cell means, sized by the number of observations. The line is a LOESS fit to respondent-level data with a 95% pointwise confidence band.

2.4 Divorce Beliefs, Specialization and Fertility

We next examine how the elicited beliefs co-move with household choices and intentions, focusing on within-household specialization in market work and fertility intentions. We estimate the following baseline specification:

$$Outcome_i = \beta_0 + \beta_1 belief_i + \delta' \mathbf{X}_i + \theta_s + \theta_c + \theta_w + \epsilon_i. \tag{1}$$

The dependent variable $Outcome_i$ denotes the choice or intention of household i. The coefficient β_1 captures the conditional correlation between the outcome and divorce beliefs. Our preferred belief measure is the respondent's subjective probability of staying married over the next 10 years, which is available in both waves and which we harmonized to a common belief framing. The vector $\mathbf{X}_i$ collects individual- and household-level controls: binned marriage duration, binned number of children in the household, a dummy for the presence of a child under age 5, total household labor income, college dummies for both spouses, and an indicator for whether the respondent is female. We additionally include fixed effects for U.S. state of residence (θ_s), birth cohort (θ_c), and survey wave (θ_w). Standard errors are heteroskedasticity-robust.

Table 1 reports the estimated $\hat{\beta}_1$ coefficients across outcomes; controls and fixed effects are omitted.[8] Appendix S1, Table S1.4 reports the full specifications including controls and Table S1.3 reports additional outcome variables considered.

Two patterns stand out. First, respondents who are more optimistic about marital stability exhibit

[8]Observations differ across specifications as some outcome variables were only asked in one wave or only among a sub-population of the survey, thus, explaining the differences in observations across specifications. Fertility intentions and intended age at first birth were elicited only in Wave 2 and only among childless individuals. Similarly, the intention to buy a house was asked only in Wave 2, and we restrict the sample to non-homeowners.

Table 1: Expectations to stay married (10y) on Household Choices and Intentions

	(1) |Δ Lab. Inc.|	(2) |Δ Hours|	(3) Female Employment (0/1)	(4) Age 1st Birth (intention)
Exp. stay married (10y)	99.6^{*}	0.040	-0.0015^{***}	-0.033^{***}
	(60.0)	(0.025)	(0.0005)	(0.011)
Observations	2,564	1,749	2,187	196
	(waves 1 & 2)	(wave 1)	(waves 1 & 2)	(wave 2)

Notes: OLS coefficients on the subjective probability of staying married over the next 10 years (percentage points). All columns control for household labor income, respondent sex, and fixed effects for cohort, state, marriage duration, and own and spouse's education. Columns 1–3 add a dummy for a child under 5 and the number of children; column 4 is restricted to childless respondents. Columns 1 and 3 pool both waves and add wave fixed effects. Robust standard errors in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

higher within-couple gaps in annual labor income (column 1 of Table 1) and in weekly market hours (column 2), as well as a lower employment rate of the female spouse (column 3). These estimates are statistically significant, with the exception of market hours ($p = 0.11$), and economically sizable: a one-standard-deviation increase in the expectations of staying married (18.8 p.p.) is associated with an increase of about \$1,870 (2016 USD) in the within-couple annual labor income gap and a 2.9 percentage-point decrease in female employment. Table S1.3 points in the same direction: women in couples with more optimistic divorce expectations have accumulated less work experience and spend more time on home production (columns 6 and 7). These two estimates are, however, imprecise ($p = 0.26$ and $p = 0.45$), plausibly reflecting measurement error in the underlying survey items.[9]

Second, optimists intend to have their first child at an earlier age (column 4 of Table 1), bringing it forward by roughly 0.61 years per one-standard-deviation increase in the expectations of staying married, while showing no significant association with the intention to have a child (column 2 of Tables S1.3 and S1.6).[10]

Beliefs are also associated with the composition of household wealth: respondents who expect a higher probability of staying married hold more housing wealth and are less likely to keep a separate bank account (see supplemental material Table S1.3).[11]

2.5 Divorce Optimism: Evidence from Three Benchmarks

A low stated probability of divorce is not by itself evidence of an optimism bias, because each respondent's true risk is unobserved. We therefore compare stated beliefs with three benchmarks:

[9] Work experience is elicited as the sum of full-time and part-time years worked.

[10] The latter result likely reflects selection: the sample consists of childless married respondents, who may have selected into marriage partly with the intention of having children, leaving little variation in fertility intentions.

[11] Respondents with higher expectations of staying married also report higher household net wealth, and all three associations are robust to conditioning on predicted divorce risk. Our model features a single joint, liquid asset that is divided equally at divorce. It is therefore not designed to capture the composition of household portfolios, such as homeownership or separately held accounts, and we do not use these moments to discipline it. We view the joint determination of divorce beliefs and portfolio composition as an important extension.

Table 2: Mean Comparative Judgments by Horizon

	1 Year	5 Years	10 Years	Ever
Unconditional	-11.9^{***}	-14.1^{***}	-16.0^{***}	-11.6^{***}
	(0.8)	(0.8)	(0.9)	(0.5)
Adjusted	-8.6^{***}	-11.9^{***}	-15.0^{***}	-9.7^{***}
	(2.3)	(2.3)	(2.6)	(2.3)
Observations	840	841	841	1,751
Survey wave	2	2	2	1

Notes: Comparative judgment is the own divorce probability minus the probability assigned to a comparable couple, in percentage points. Unconditional: sample means. Adjusted: intercept from a regression on demeaned controls (own and spouse's education, marriage duration, family composition, household labor income), estimated on respondents with complete controls (822–823 at the 1–10-year horizons). Standard errors in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

the probability respondents assign to comparable couples, their beliefs after they are shown the population divorce rate, and a probability predicted from their observed characteristics.

Benchmark 1—Comparative Judgments. Following Weinstein (1980), our first benchmark uses respondents' *comparative judgments*, i.e., their perceived likelihood of experiencing an event relative to similar peers. Alongside their own divorce probability, we asked each respondent for the divorce probability of a comparable couple, matched on financial situation and family composition. Wave 1 elicited both beliefs over the ever-divorce horizon, and wave 2 elicited them over the 1-, 5-, and 10-year horizons. Responses under the stay-married framing are converted to the divorce scale.

The comparative judgment is the respondent's own divorce probability minus the probability assigned to the comparable couple. A single respondent may well face a lower or higher risk than comparable couples, for example because of unobserved match quality. Comparable couples are defined only on observable characteristics. Still, if our respondents are broadly representative of the couples who share those characteristics, differences in unobservables should largely cancel out across the sample. Accurate beliefs then imply a mean comparative judgment close to zero. A substantial negative mean implies that respondents as a group consider themselves less likely to divorce than couples like them. That belief is difficult to square with accurate expectations unless the sample is strongly positively selected on unobserved characteristics.

Table 2 shows that the mean comparative judgment is negative and significant at every horizon. At the ten-year horizon, for example, respondents place themselves 16.0 percentage points below comparable couples (and 15.0 points after adjusting for controls). A relative comparison of this kind cannot, however, distinguish optimism about one's own marriage from pessimism about others, and the remaining two benchmarks therefore use absolute reference points.

Benchmark 2—Updating After Information. The second benchmark asks whether beliefs respond to the population base rate. Midway through the wave 2 questionnaire, respondents saw

Table 3: Revision of Divorce Expectations After the Information Screen

		Mean belief (%)		Revision		Share of respondents (%)		
Horizon	N	Before	After	Δ	s.e.	Up	Unchanged	Down
1 year	960	2.2	6.0	+3.80***	(0.81)	18	80	3
5 years	961	5.9	10.3	+4.35***	(0.87)	23	70	7
10 years	960	9.7	14.2	+4.50***	(0.95)	26	67	7

Notes: Wave 2 respondents; probabilities on the divorce scale. Δ is the mean within-respondent change. Because the follow-up question asks how the respondent's perspective has changed, Δ likely overstates true updating; the share unchanged is the more conservative measure. Robust standard errors in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

2022 U.S. Census figures on marital dissolution and single parenthood, including the statistic that about 40% of U.S. marriages end in divorce, and were then asked again about their own probability of divorce within one, five, and ten years. If respondents were optimistic because they underestimated how common divorce is, this information should raise their beliefs. If they regard the statistic as describing other marriages, their beliefs should change little. The design follows information experiments on inflation expectations (Coibion et al. 2022), but without a control group, so measured revisions likely overstate genuine updating.[12]

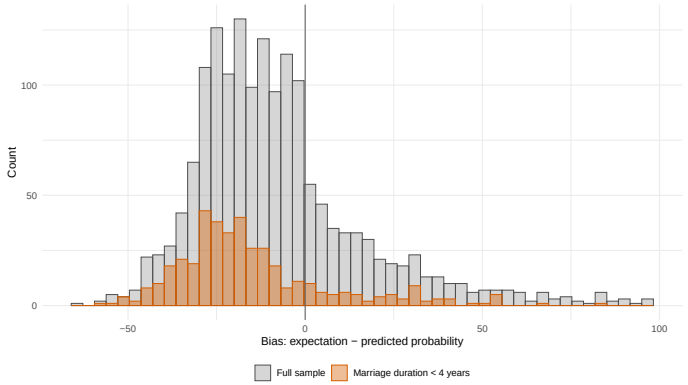
Most respondents do not revise (Table 3). Two thirds of respondents leave their ten-year probability exactly unchanged; 26% revise upward and 7% downward. The mean revision of 4.5 percentage points (from 9.7% to 14.2%) is thus driven by a third of the sample. Before the information, 60% report a ten-year divorce probability of exactly zero, and 81% of them remain at zero afterwards. The revision is no larger at the ten-year horizon than at the one-year horizon ($p = 0.35$).

Respondents who do not revise are not distinguishable by age, marriage duration, income, education, or children (Table S1.5). They differ in how they rank themselves relative to others. Before the information, non-revisers put their own ten-year probability at 6.1% and that of a comparable couple at 29.3%, so they rate their own risk at about one fifth of their peers'. Revisers put the two at 17.1% and 35.9%, so they rate their own risk at about half. Non-revisers also state the initially lower estimate for comparable couples, further below the 40% shown on the screen, yet the information does not move them. Their optimism therefore does not appear to stem from underestimating how common divorce is, but rather from believing that the base rate does not apply to their own marriage.

Benchmark 3—Beliefs Against a Statistical Benchmark. Because respondents generally do not apply the population rate to themselves, our third benchmark compares each respondent's stated belief with the divorce probability predicted from their own characteristics, as in the literature on survival expectations (Grevenbrock et al. 2021). We train a random forest on the Panel Study

[12]The follow-up question also asks how the respondent's perspective has changed, which further encourages revision. We therefore focus on the share of respondents who do not revise.

Figure 3: Estimated Belief Bias



Notes: Stated probability of ever divorcing minus the probability predicted by a random forest trained on first marriages in the PSID, in percentage points. Negative values mean the respondent expects a lower risk than predicted. Wave 1 respondents; full sample and couples married fewer than four years.

of Income Dynamics (PSID, 1968–2019), restricted to couples in their first marriage whose marital outcome is essentially complete by the end of the panel. The binary outcome indicates whether the first marriage *ever* ended in divorce. Predictors include couple demographics, education, labor-market outcomes, household composition, parental divorce history, and geographic controls. Applied to our wave 1 respondents, the random forest model yields a predicted probability of ever divorcing, which we compare with their stated probability over the same horizon. Appendix S1.5 describes the algorithm, its performance, and its limitations in more detail.[13]

Figure 3 plots the difference between each respondent's stated and predicted probability of ever divorcing, for the full sample and for newlyweds, defined as respondents married less than four years. Stated probabilities fall below the prediction for 74% of respondents and for 82% of newlyweds, partly because many respondents report a probability of zero, which lies below any positive prediction. On average, stated probabilities are 7.8 percentage points below the prediction, and 15.4 points below it among newlyweds.

Beliefs, Predicted Risk, and Choices. Section 2.4 shows that respondents who consider the probability of staying married to be higher are more likely to specialize more and plan to have children earlier. These respondents might simply face a lower observable risk of divorce. To check this, we add the predicted probability of staying married (the converse of ever divorcing) to specification (1). The coefficients on beliefs change only slightly (Table S1.6 in Appendix S1). Among respondents with the same predicted chance of staying married, a higher stated probability means

[13] Because the model requires complete marital histories, it is trained on spouses born between 1904 and 1958, whereas our respondents belong to later cohorts. The random forest algorithm conditions on the characteristics that have shifted most across cohorts—education, earnings, hours, age at marriage, and children—so much of the decline in divorce risk among more recent cohorts is captured through composition. Since cohort-specific divorce risk beyond these characteristics cannot be extrapolated past the training sample, the benchmark may somewhat overstate the risk facing younger respondents; we therefore view the estimated degree of optimism as a conservative upper bound.

a larger overestimation of that chance, so the overestimation of staying married itself is associated with household choices.

Perceived Consequences of Divorce. The three benchmarks concern the perceived probability of divorce. Optimism could, however, also extend to its consequences, if respondents underestimated the economic cost of separation. To distinguish the two, wave 1 included an open-ended question asking respondents how they would adjust their plans if their probability of divorce were substantially higher or, under the alternative framing, their probability of remaining married substantially lower. A large majority of respondents (84%) describe at least one concrete adjustment, most frequently precautionary saving (38%), arrangements for children (27%), changes in labor supply (20%), and the separation of finances or assets (15%). Only 8% report that their plans would remain unchanged (Appendix S1.8). Respondents thus appear to understand the economic consequences of divorce while underestimating its likelihood. This pattern is consistent with the model's assumption that optimistic couples misperceive the probability of divorce but correctly anticipate its consequences.

Gender and Breadwinner Status. Expected divorce probabilities do not differ systematically between women and men, or between primary and secondary earners (columns 1 and 2 of Table S1.7). This provides at least suggestive evidence that optimism might not differ between spouses.[14]

2.6 Taking Stock

The survey delivers two facts that motivate the model. First, beliefs are optimistic against all three benchmarks, most strongly among newlyweds. Second, beliefs are associated with decisions. More optimistic respondents specialize more in market work and intend to move fertility forward, even after conditioning on predicted divorce risk. Beliefs, and hence their bias, are therefore an independent input into household choices. Four limitations motivate the model. First, beliefs, choices, and divorce are jointly determined, and beliefs may track unobserved match quality, so the survey correlations need not be causal. In the model, the belief type is assigned independently of match quality, so differences between optimistic and realistic couples reflect beliefs alone, and we can ask whether the model rationalizes the patterns in the survey. Second, the bias may decline with marriage duration in the cross-section. This could reflect a decay in the bias, or selection, if optimists and realists divorce at different rates. The model separates the two. Third, the survey samples only intact first marriages, while the consequences of optimism materialize after divorce, and beliefs themselves shape who divorces. The model follows couples through divorce, so we can measure the full effect of beliefs on post-divorce outcomes. Fourth, the welfare effect of optimism is ambiguous a priori: optimists insure less, but they have more children, specialize more, and might stay in marriages that realists would leave. Evaluating this trade-off requires a counterfactual with correct beliefs, which only the model provides.

[14] Breadwinner status is determined by stated labor income.

3 Model

To study the implications of subjective divorce beliefs for household behavior, we develop a structural life-cycle model of household decision-making in this section. Our framework builds on and extends the models of Voena (2015) and Foerster (2025).

3.1 Setup

Consider an economy populated by initially married, opposite-sex couples. Spouses are indexed by $g \in \{f, m\}$, where f denotes the wife and m the husband. Time t is discrete and measured at an annual frequency.[15] Individuals enter the economy married, with spouses assumed to be of the same age. Couples may conceive children while the age-specific conception probability declines with age. Individuals retire stochastically from age $\underline{R}$ onward, facing a constant per-period retirement hazard, with age R acting as a hard cap. Retirement is absorbing and, within marriage, joint. All individuals face a finite horizon ending at age T.

In every working period, married individuals jointly choose both spouses market hours $h_{f,t}$ and $h_{m,t}$, home production hours $q_{f,t}$ and $q_{m,t}$ – which capture household chores and childcare in a reduced-form way –individual consumption $c_{f,t}$ and $c_{m,t}$, and joint savings in a risk-free asset A_{t+1}. Market hours are chosen from a discrete set, $h_{g,t} \in \mathcal{H} = \{0, 0.25, 0.45\}$, where $h_{g,t} = 0$ denotes non-participation.[16] While fertile, couples also make a conception decision $B_t \in \{0, 1\}$; conditional on $B_t = 1$, a birth $b_{t+1} \in \{0, 1\}$ realizes at the start of the following period with an age-dependent probability. Retired households no longer supply market hours, but continue to choose consumption, home production time and savings.

In each period, both spouses compare the value of continued marriage to their outside option, divorce. The total marital surplus is defined as the sum of both spouses' gains from marriage relative to their respective divorce values. Utility is transferable within the marriage, and intra-household allocations are determined by Nash bargaining, with the surplus divided according to a fixed bargaining weight μ_f for the wife and $1 - \mu_f$ for the husband. Divorce occurs if the total marital surplus turns negative, as no feasible transfer can then make both spouses prefer marriage to being single (see, e.g., Greenwood et al. 2016; Goussé et al. 2017; Foerster et al. 2025; Zhou 2026). Upon divorce, assets are split equally and child custody is assigned stochastically to one parent.[17] Divorcees make individual choices over market and home production hours and accumulate assets.

Couples exhibit ex-ante heterogeneity along two dimensions. First, spouses differ in their initial levels of human capital $K_{f,1}$ and $K_{m,1}$, drawn from a joint distribution that allows for assortative matching, creating incentives for specialization. Second, each couple is endowed with an exoge-

[15] In this stationary life-cycle model, age and time periods coincide.

[16] Hours are expressed as a share of the individual's time endowment, which is normalized to one. The three points correspond to non-participation, part-time and full-time work.

[17] We assume that divorced individuals do not remarry.

nous belief type $\chi \in \{R, O\}$, where R denotes a *realistic* type and O an *optimistic* type.[18] Motivated by our survey evidence, we assume that both spouses share the same belief type within a marriage. Realistic types correctly perceive the distribution of future match-quality shocks and therefore accurately infer their implied probability of divorce. In contrast, optimistic types hold beliefs with an upward-biased mean over future match-quality shocks and consequently underpredict their likelihood of divorce.

3.2 Preferences

We assume that preferences are separable across time and states of the world. Per-period utility for an individual is given by

$$\begin{aligned} u\big(c_{g,t}, \ell_{g,t}, n_t, age_t^y, Q_t\big) = \frac{\big(c_{g,t}/\nu(n_t)\big)^{1-\gamma_c}}{1-\gamma_c} \;+\; \psi_g \, \frac{\ell_{g,t}^{1-\gamma_\ell}}{1-\gamma_\ell} \\ +\; \lambda(n_t, age_t^y) \, \frac{Q_t^{1-\gamma_Q}}{1-\gamma_Q} \;+\; \eta_{kids}\, n_t, \end{aligned} \tag{2}$$

with $(\gamma_c, \gamma_\ell, \gamma_Q, \psi_f, \psi_m, \eta_{kids}) \in \mathbb{R}_+^6$.

Individuals derive utility from consumption $c_{g,t}$, scaled by the OECD-modified equivalence factor $\nu(n_t)$ to account for the presence of children,

$$\nu(n_t) = \begin{cases} 1 + 0.2\, n_t & \text{if married,} \\ 1 + 0.3\, n_t & \text{if divorced,} \end{cases} \tag{3}$$

which applies the published OECD-modified weights of 1 for the first adult, 0.5 for the second and 0.3 per child, each normalized by its own childless value so that $\nu(0) = 1$. They further derive utility from leisure $\ell_{g,t}$, scaled by a gender-specific preference parameter ψ_g, as well as from a home-produced good Q_t. Parents additionally receive a warm-glow benefit from children, linear in their number n_t and scaled by η_{kids}. Following custody assignment at divorce, children are recorded as resident with the custodial parent only, so the non-custodial parent receives neither the warm-glow benefit nor any adjustment to ν or λ.

The utility weight on home production,

$$\lambda(n_t, age_t^y) = \omega_0 + \omega_1 \sum_{i=0}^{n_t - 1} \max\left\{1 - \frac{age_t^y + i}{\overline{age}^y},\; 0\right\}, \tag{4}$$

takes a per-child form in the number of children n_t. Each resident child contributes a term that declines linearly in the child's own age, reaching zero once that child turns $\overline{age}^y$. Here age_t^y denotes

[18] We do not model a pessimistic type. Relative to the random-forest benchmark, 26% of respondents, and 18% of those married less than four years, report a divorce probability at or above the predicted one (Section 2). Optimism thus dominates early in marriage, when the fertility and specialization decisions with persistent effects are made.

the age of the youngest resident child *in years*, represented in the state space by the lower bound of its age category.[19] Since only the youngest child's age is tracked, older siblings are assumed to be spaced one year apart, so the i-th oldest resident child ($i = 0$ for the youngest) is treated as being $age_t^y + i$ years old.

The parameters γ_c, γ_ℓ, and γ_Q govern the respective curvature of utility from consumption, leisure, and home production. All three exceed unity in our calibration, so each of the three CRRA terms is negative-valued. The weight $\lambda(n_t, age_t^y)$ should therefore be read as governing the *marginal* value of home production: a higher weight raises the marginal utility of Q_t and strengthens the incentive to devote time to home production when young children are present, while lowering the level of utility at a given Q_t. Children are made desirable by the warm-glow term, which is what separates the desirability of fertility from the time cost it imposes.

3.3 Time and Budget Constraints

Individual Time Constraint. Each individual is endowed with a fixed time resource T, normalized to one, which is allocated between market work $h_{g,t}$, leisure $\ell_{g,t}$, and home production $q_{g,t}$:

$$T = h_{g,t} + \ell_{g,t} + q_{g,t}, \qquad T \equiv 1. \tag{5}$$

Tax and Transfer System. We model the tax and transfer system for married couples and divorced individuals ($\tau^{mar}(\cdot)$ and $\tau^{div}(\cdot)$) following Guner et al. (2023), which captures progressive taxation of labor income, the Earned Income Tax Credit (EITC), welfare transfers, and a flat tax on capital income. Both schedules are net of transfers and may therefore take negative values at low income levels, and both depend on the number of children in the household. Labor income is taxed jointly in the baseline specification for married couples.[20]

Joint Budget Constraint for Married Couples. Married individuals face a joint budget constraint:

$$A_{t+1} + (c_{m,t}^{\rho} + c_{f,t}^{\rho})^{\frac{1}{\rho}} = (1+r)A_t + w_{m,t}h_{m,t} + w_{f,t}h_{f,t} - \tau^{mar}(w_{m,t}h_{m,t} + w_{f,t}h_{f,t}, rA_t, n_t) \tag{6}$$

Couples pool their financial resources, consisting of savings in a risk-free asset A_{t+1} earning an interest rate r and labor income earned at hourly wage rates $w_{g,t}$. Married couples are subject to taxes and transfers $\tau^{mar}(\cdot)$ as described above. Household resources are allocated to individual consumption of both spouses, $c_{f,t}$ and $c_{m,t}$, as well as to savings A_{t+1}. As in Voena (2015), we allow for economies of scale in consumption during marriage, captured by a parameter $\rho > 1$. In retirement, labor income is replaced by pension income, as described in Section 3.11.

[19] See Section 3.10: the state tracks the youngest child's age category rather than its exact age, and λ is evaluated at the category's lower bound.

[20] For details see Section 4. The EITC and means-tested welfare transfers apply to working-age households only; retired households receive pension income and are not eligible.

Budget Constraint for Divorced Individuals. Meanwhile, a divorcee faces the following individual budget constraint:

$$A_{t+1} + c_{g,t} = (1+r)A_t + w_{g,t}h_{g,t} - \tau^{div}(w_{g,t}h_{g,t}, rA_t, n_t) \tag{7}$$

Divorced individuals finance consumption and savings using their own asset holdings and individual labor income, subject to the tax and transfer system for singles $\tau^{div}(\cdot)$. In contrast to married couples, divorcees do not pool financial resources with a former spouse and face a different tax and transfer schedule, which depends on whether they have child custody ($n_t > 0$). Moreover, divorced individuals do not benefit from economies of scale in consumption.

3.4 Home Production Technology

The home-produced good Q_t captures both the well-being of the couple's children and goods and services produced within the household, such as household chores and childcare. As in Foerster (2025), Q_t is assumed to be a public good within marriage and is produced using home production time of both spouses according to a CES technology:

$$Q_t = \left(a_f^{mar} q_{f,t}^{\sigma} + (1 - a_f^{mar}) q_{m,t}^{\sigma}\right)^{\frac{1}{\sigma}}. \tag{8}$$

Here, the parameter a_f^{mar} captures the female comparative advantage in home production during marriage, while σ governs the degree of substitutability between female and male home production time.[21]

For divorced individuals, the home production technology collapses to a simpler linear form:

$$Q_t = a_g^{div} q_{g,t}, \tag{9}$$

where individuals produce the home good independently using their own home production time. The parameter a_g^{div} is a gender-specific productivity level rather than a share, and is calibrated separately from a_f^{mar}.

3.5 Match Quality

In addition to their individual per-period utility given in Equation (2), couples draw a match quality θ_t at the beginning of each period. This random variable captures the contemporaneous quality of the marriage and is normalized to zero for divorced individuals. Following Low et al. (2025), we assume that match quality is a single draw at the couple level, common to both spouses.

[21] As noted by Fernández et al. (2004), the comparative advantage in home production can be interpreted as stemming either from gender productivity differences in domestic tasks or from gender-specific attitudes towards household work shaped by prevailing social norms. Following the approach in Foerster (2025), this paper treats this comparative advantage as exogenous.

Formally, match quality in period t is given by

$$\theta_t = \mu_\theta + \alpha_\theta (t - t_0)^2 + \epsilon_t, \qquad \epsilon_t \overset{\text{i.i.d.}}{\sim} \mathcal{N}(0, \sigma_\theta^2). \tag{10}$$

Because all couples enter the model married and at the same age, the period index t measures age and marriage duration interchangeably; $d_t = t - 1$ denotes marriage duration, which is the argument of the belief bias introduced in Section 3.6.

The second term on the right-hand side allows match quality to follow a U-shaped profile over the life of the marriage, where t_0 denotes the point of minimum match quality and α_θ governs the curvature of the U-shape. This formulation captures that match quality tends to decline during the child-rearing years and rebounds once children leave the household. The specification is consistent with panel evidence from sociology and developmental psychology.[22] The final term captures an idiosyncratic match-quality shock ϵ_t that realizes at the beginning of each period, is independently and identically distributed across couples and over time, and is drawn from a normal distribution with mean zero and variance σ_θ^2.[23]

3.6 Ex-Ante heterogeneity

Couples are ex-ante heterogeneous along two dimensions.

Belief Profiles. At $t = 1$, each couple is exogenously endowed with a belief type $\chi \in \{R, O\}$, where R denotes a *realistic* type and O an *optimistic* type. Motivated by our survey evidence that beliefs do not significantly differ by gender or breadwinner status, we assume that both spouses share the same belief type. Belief types affect the expectations about future realizations of match quality. Formally, letting the true distribution of match-quality innovations be $\mathcal{N}(0, \sigma_\theta^2)$, perceived means satisfy

$$\mathbb{E}_t^R[\epsilon_{t+1}] = 0, \tag{11}$$

$$\mathbb{E}_t^O[\epsilon_{t+1}] = \phi_\theta \, e^{-\delta d_{t+1}}, \qquad \phi_\theta > 0, \ \delta > 0, \tag{12}$$

where $d_{t+1} = t$ denotes the marriage duration of the period the expectation refers to. Realistic couples correctly perceive the full distribution of match-quality shocks. Optimistic couples hold an upward-biased belief about the mean of future match quality.[24] This bias is positive but declines

[22] VanLaningham et al. (2001) document a U-shaped pattern using the National Survey of Families and Households; Gorchoff et al. (2008) find a similar dip-and-rebound profile in the Berkeley and Oakland Growth Studies; and Lawrence et al. (2007) report a cubic profile in the Early Years of Marriage Project.

[23] In the numerical solution, θ_t is discretized on a grid of twelve points truncated at three standard deviations.

[24] We place the bias on the mean of future match-quality innovations rather than on their variance for two reasons. First, this follows the standard way of modeling optimism in quantitative models with biased beliefs, where optimists place too much probability on favorable realizations of a shock process and too little on unfavorable ones (Exler et al. 2025), or overestimate the baseline probability of a good outcome (Spinnewijn 2015). Second, an upward shift in the perceived mean lowers the perceived probability of divorce in every state, whereas an understated variance lowers it only for couples whose divorce threshold lies below the mean and raises it for couples close to dissolution; systematic underprediction of divorce risk is therefore consistent with a mean bias but not with a variance bias.

with marriage duration: ϕ_θ determines its magnitude at the time of marriage, while δ governs its rate of decay. Both belief types correctly perceive the variance σ_θ^2, and beliefs about all other stochastic processes in the model are correct.

Initial Human Capital. Ex-ante heterogeneity further arises from spouses' initial human capital pairs $K_{f,1}, K_{m,1}$. We model those pairs as discrete mass points drawn from the empirical joint distribution of spousal education in the PSID, so that the initial distribution reproduces the observed degree of assortative matching.

3.7 Wages and Human Capital Process

Wage Process. Log hourly wages are linear in individual human capital:

$$\ln(w_{g,t}) = \alpha_{0,K} + \alpha_{1,K} K_{g,t}. \tag{13}$$

The parameters $(\alpha_{0,K}, \alpha_{1,K}) \in \mathbb{R}^+$ capture the intercept wage level and the return to an additional unit of human capital, respectively. We restrict both to be common across genders: they are not separately identified from the gender-specific human capital accumulation rates introduced below.[25]

Human Capital Process. Human capital evolves on a discrete support, with $K_{g,t} \in \{1, \ldots, K_{\max}\}$. As in Foerster (2025), we assume that human capital follows a Markov process over this discrete grid. Between the end of period t and the beginning of period $t+1$, individuals can move up, down, or remain at the same human capital level with probabilities that depend on contemporaneous market hours worked and on age: $\pi_{\text{up}}(h_{g,t}, t)$, $\pi_{\text{down}}(h_{g,t}, t)$, and $\pi_{\text{stay}}(h_{g,t}, t)$. Formally,

$$K_{g,t+1} = \begin{cases} \min\{K_{g,t}+1,\, K_{\max}\}, & \text{with } \pi_{\text{up}}(h_{g,t}, t) = p_K(h_{g,t}, t)\,(1-p_\delta), \\ K_{g,t}, & \text{with } \pi_{\text{stay}}(h_{g,t}, t) = p_K(h_{g,t}, t)\,p_\delta + \big(1 - p_K(h_{g,t}, t)\big)\,(1-p_\delta), \\ \max\{K_{g,t}-1,\, 1\}, & \text{with } \pi_{\text{down}}(h_{g,t}, t) = \big(1 - p_K(h_{g,t}, t)\big)\,p_\delta, \end{cases} \tag{14}$$

where probabilities are renormalized at the boundaries of the grid. Here, p_δ captures an exogenous depreciation rate that is independent of market hours and common across genders, while

$$p_K(h_{g,t}, t) = 1 - \exp\Big(-\max\big\{\zeta_{K,g} + \zeta_{age}\, t,\; 0\big\}\, h_{g,t}\Big) \tag{15}$$

governs the probability of upward mobility. The gender-specific parameter $\zeta_{K,g} > 0$ determines the importance of hours worked for progression along the career ladder, and $\zeta_{age} < 0$ allows this return to decline with age, capturing a front-loaded incentive to accumulate human capital early

[25] Gender differences in wages therefore arise endogenously in the model, through differences in accumulated human capital, which in turn reflect gender-specific accumulation rates and the couple's allocation of market hours over the life cycle.

in the life cycle. The $\max\{\cdot, 0\}$ operator keeps the effective learning rate from turning negative once $\zeta_{age}\, t$ comes to dominate $\zeta_{K,g}$. Human capital ceases to evolve in the period preceding the mandatory retirement age R.

Human capital accumulation can thus be interpreted as an individual's career trajectory over the life cycle, capturing dynamic and persistent returns to long working hours, as documented in Imai and Keane (2004), Michelacci and Pijoan-Mas (2012), Blundell et al. (2016), and Adda et al. (2017).

3.8 Institutional Divorce Setting

Asset Division. If divorce occurs, we assume that marital assets are split equally at the beginning of the divorce period t, before any choices for that period are made. This assumption reflects the equitable-distribution principle applied in most U.S. jurisdictions.[26]

Child Custody. Following much of the family-economics literature, which typically abstracts from joint physical custody arrangements, we assume that physical custody is assigned to a single parent. Upon divorce, one spouse becomes the sole custodial parent, and children reside exclusively with that parent. Let $S_g \in \{0, 1\}$ denote custodial status for spouse $g \in \{f, m\}$, where $S_g = 1$ indicates custody. Custody is assigned stochastically at separation, with probability $\Pr(S_g = 1)$, and is permanent thereafter. Custodial status affects divorced individuals' tax and transfer treatment, the value of home production, the equivalence scale applied to consumption, and the warm-glow benefit from children: the non-custodial parent is treated as childless in all four respects. We abstract from maintenance (alimony or child-support) payments and from remarriage.[27]

3.9 Dynamic Optimization Problem of Divorcees

State Vector. Divorced individuals of gender $g \in \{f, m\}$ make decisions at time t subject to the following state vector:

$$\Omega_{g,t}^{\text{div}} = \Big(K_{g,t},\ n_t,\ age_t^y,\ A_t,\ \mathcal{R}_t\Big). \tag{16}$$

The state vector consists of the individual's human capital level $K_{g,t}$, the number of children n_t and the age category of the youngest child age_t^y – both relevant only if the individual is the custodial

[26] Our assumption of equal asset division is a modeling simplification. Forty-one U.S. states and the District of Columbia follow equitable-distribution rules, derived from the Uniform Marriage and Divorce Act (UMDA) and implemented through state property-division statutes (see Cornell Law School, Legal Information Institute (2024) and Justia (2024)). In practice, courts may account for factors such as marriage duration, relative contributions, future needs, and judicial discretion, even under equitable-distribution regimes. Nonetheless, equal division of assets is standard in the family-economics literature (see, for example, Voena 2015, Jakobsen et al. 2026, and Foerster 2025). An alternative approach would allow for stochastic asset division, as in Chang (2019), which we leave for future work.

[27] According to the U.S. Census Bureau's *Custodial Parents and Their Child Support: 2022*, only 37.3 percent of custodial parents had a legal child-support agreement in place, and among female-headed families only 23 percent reported receiving any child-support income. Even conditional on having an order, less than half of custodial parents historically receive the full amount due (see, for instance, Grall 2020). We abstract from remarriage following Reynoso (2024) and Foerster (2025). Although remarriage may provide insurance against adverse post-divorce outcomes, we expect it to widen differences between optimists and realists, as optimists divorce later and with lower human capital and assets, likely reducing their remarriage probabilities.

parent – individual asset holdings A_t, and retirement status $\mathcal{R}_t \in \{0, 1\}$.

Choice Vector. Given the state $\Omega_{g,t}^{\text{div}}$, divorced individuals choose a vector of controls x_t^{div} from the choice set

$$X_t^{\text{div}} = \Big\{ x_t^{\text{div}} = \big(c_{g,t},\, h_{g,t},\, q_{g,t},\, A_{t+1}\big) \;\Big|\; c_{g,t} \geq 0,\; h_{g,t} \in \mathcal{H},\; q_{g,t} \geq 0,\; A_{t+1} \geq 0 \Big\}. \tag{17}$$

Divorcees choose individual consumption, market labor supply, home production hours, and next-period asset holdings. Consumption and home production time are subject to non-negativity constraints, and asset holdings are restricted by a no-borrowing constraint. Market hours are chosen from the discrete set $\mathcal{H} = \{0,\, 0.25,\, 0.45\}$, which includes non-participation. Retired individuals supply no market hours.

Dynamic Optimization Problem. In every period t, divorced individuals solve the following dynamic optimization problem:

$$\begin{aligned} V_{g,t}^{\text{div}}\Big(\Omega_{g,t}^{\text{div}}\Big) = \max_{x_t^{\text{div}} \in X_t^{\text{div}}} \Big\{ & u_g(c_{g,t}, \ell_{g,t}, n_t, age_t^y, Q_t) + \beta\, \mathbb{E}_t\Big[V_{g,t+1}^{\text{div}}\Big(\Omega_{g,t+1}^{\text{div}}\Big)\Big] \Big\} \\ \text{s.t.} \quad & \text{individual time constraint (5), individual budget constraint (7),} \\ & \text{home production technology (9), wage process (13),} \\ & \text{human capital process (14), choice set (17).} \end{aligned} \tag{18}$$

Divorced individuals maximize their individual flow utility plus the expected discounted continuation value. Uncertainty stems from the stochastic evolution of individual human capital, from the timing of retirement, and, for custodial parents, from the gradual phasing-out of children described in Section 3.10. The number of children never increases after divorce.

3.10 Dynamic Optimization Problem of a Married Couple

State Vector. In every period t, the state of a married couple is summarized by the following state vector:

$$\Omega_t^{mar} = \Big(\big(K_{g,t}\big)_{g \in \{f,m\}},\; \chi,\; n_t,\; age_t^y,\; \theta_t,\; A_t,\; \mathcal{R}_t \Big). \tag{19}$$

The state vector consists of both spouses' human capital levels $K_{g,t}$ and the couple's match quality θ_t, which are realized at the beginning of the period. It further includes the couple's exogenous and time-invariant belief type χ, the number of children n_t, the age category of the youngest child age_t^y, jointly accumulated assets A_t, and retirement status $\mathcal{R}_t$, which is joint within marriage.

Choice Vector. For a given state vector Ω_t^{mar}, married couples jointly choose a vector of decisions x_t from the following choice set:

$$X_t^{\text{mar}} = \Big\{ x_t = \big((c_{g,t},\, h_{g,t},\, q_{g,t})_{g\in\{f,m\}},\, B_t,\, A_{t+1}\big) \;\Big|\; \begin{array}{l} c_{g,t} \geq 0, \quad h_{g,t} \in \mathcal{H}, \quad q_{g,t} \geq 0, \quad A_{t+1} \geq 0, \\ B_t \in \{0,1\}, \quad B_t = 0 \text{ if } n_t = \bar{n} \end{array} \Big\}. \tag{20}$$

Specifically, couples choose individual consumption, market labor supply, and home production hours for both spouses; a conception decision $B_t \in \{0,1\}$; and savings in a joint risk-free asset A_{t+1}. The same feasibility and non-negativity constraints apply as in the divorcee's problem. Whether the marriage continues is not itself a choice: it is determined by the marital surplus, as described below.

Fertility Decisions. Couples make a conception decision $B_t \in \{0,1\}$ in every period in which they have fewer than $\bar{n}$ resident children. A birth realizes at the start of period $t+1$ with indicator $b_{t+1} \in \{0,1\}$ at a probability that depends on age (equivalently t here):

$$\Pr(b_{t+1} = 1 \mid B_t = 1) = \pi_{birth}(t). \tag{21}$$

The conception probability $\pi_{birth}(t)$ declines exponentially in age. The number of children can increase up to a maximum of $\bar{n} = 2$.[28] Rather than tracking the exact age of every child — which would expand the state space prohibitively — we summarize the household's child-related state by the pair (n_t, age_t^y), where $\text{age}_t^y \in \{1,2,3\}$ denotes the age category of the youngest resident child. Category 1 corresponds to ages 0–3, category 2 to ages 4–6, and category 3 to ages 7–9; when $n_t = 0$ we set $\text{age}_t^y = 1$ by convention. A newborn resets age_t^y to 1. Wherever the youngest child's age enters preferences in years, as in Equation (4), we approximate it by the lower bound of the corresponding age category (0, 4, or 7 years). Conditional on no child departures, the number of resident children increases by b_{t+1}. The full transition over $(n_{t+1}, \text{age}_{t+1}^y)$, which accounts for the departure of children who age out of the household, is described in Appendix S3.1.

Dynamic Optimization Problem. Given the state Ω_t^{mar}, the couple's allocation is the solution to

$$x_t^* \;=\; \arg\max_{x_t \in X_t^{\text{mar}}} \Big\{ \mu_f\, \widetilde{V}_{f,t} + (1-\mu_f)\, \widetilde{V}_{m,t} \Big\}, \tag{22}$$

where, for each spouse g,

$$\widetilde{V}_{g,t} = u_g(c_{g,t},\, \ell_{g,t},\, n_t,\, age_t^y,\, Q_t) + \theta_t + \beta\, \mathbb{E}_t^X \big[V_{g,t+1}\big(\Omega_{t+1}^{\text{mar}}\big) \big], \tag{23}$$

[28] We cap the number of resident children at $\bar{n} = 2$. This does not impose a hard ceiling on completed fertility — a household whose resident children age out of the state before the fertile window closes can still go on to have more — but it materially limits how many additional children a household can conceive while already at the cap, which we use to discipline simulated completed fertility against over-predicting births. In PSID, 13.3% of household-years have three or more children resident at the same time, so the restriction binds for a non-trivial share of the population — consistent with its intended role. It is likely to bind more often for optimists, implying that the predicted higher fertility in Subsection 5.1 among optimists serves as a lower bound.

subject to the individual time constraints (5), the joint budget constraint (6), the home production technology (8), the wage process (13), the human capital process (14), and the choice set (20).

The object $\widetilde{V}_{g,t}$ is the value spouse g attains under the efficient allocation, before the surplus is divided; $V_{g,t}$ denotes the bargained value defined in Equation (26) below, and it is this bargained value that enters the continuation. Individual utilities are weighted by the fixed Nash bargaining weight $\mu_f \in [0,1]$ for the wife and $1-\mu_f$ for the husband, which also determines the division of household consumption expenditure.[29]

Uncertainty in the future value of marriage arises from beliefs about future realizations of match quality, which are perceived differently across belief types χ, as discussed above. Additional uncertainty stems from the Markovian evolution of human capital for both spouses, from the timing of retirement, from the stochastic realization of child conception if the couple decides to conceive, and from the phasing out of children.

Divorce Decision and Surplus Division. At the beginning of period t, after the state Ω_t^{mar} is realized, the couple evaluates the total marital surplus:

$$S_t(\Omega_t^{\text{mar}}) = \widetilde{V}_{f,t} + \widetilde{V}_{m,t} - \mathbb{E}_t\left[V_{f,t}^{\text{div}}\left(\Omega_{f,t}^{\text{div}}\right)\right] - \mathbb{E}_t\left[V_{m,t}^{\text{div}}\left(\Omega_{m,t}^{\text{div}}\right)\right], \tag{24}$$

where the expectations over divorce values are taken with respect to the stochastic assignment of child custody, evaluated at each spouse's share of the divided assets. Divorce occurs when the surplus turns negative:

$$D_t = \mathbf{1}\{S_t(\Omega_t^{\text{mar}}) < 0\}. \tag{25}$$

Utility is transferable within the marriage. When the marriage is sustained, Nash bargaining with weight μ_f assigns each spouse their outside option plus a fixed share of the surplus:

$$V_{f,t} = \mathbb{E}_t\left[V_{f,t}^{\text{div}}\right] + \mu_f S_t, \qquad V_{m,t} = \mathbb{E}_t\left[V_{m,t}^{\text{div}}\right] + (1-\mu_f) S_t. \tag{26}$$

When the marriage dissolves, each spouse receives their divorce value, $V_{g,t} = \mathbb{E}_t[V_{g,t}^{\text{div}}]$. In either case $V_{g,t}$ is the value carried into the previous period's continuation in Equation (23). The detailed Nash bargaining problem is derived in Appendix S3.3.

3.11 Retirement

Individuals retire stochastically from age $\underline{R}$ onward, facing a constant per-period retirement hazard p_{retire}, with age R acting as a hard cap. Retirement is absorbing; it is joint within marriage and individual for divorced individuals. Upon retirement, individuals cease supplying market labor and instead receive pension income $\kappa_g\, w_{g,t}\, \bar{h}_g$, where κ_g is a gender-specific replacement rate, $\bar{h}_g$

[29] Given the consumption aggregator in Equation (6), the split of aggregate consumption C_t into individual consumption follows in closed form from the bargaining weight and the curvature of utility from consumption. Letting $\kappa = \left(\mu_f/(1-\mu_f)\right)^{1/(\rho-1+\gamma_c)}$, the wife's share is $(1+\kappa^{-\rho})^{-1/\rho}$ and the husband's is $(1+\kappa^{\rho})^{-1/\rho}$. The two shares sum to more than one whenever $\rho > 1$; this is precisely the economy of scale in consumption during marriage.

denotes average gender-specific market hours, and $w_{g,t}$ is the wage implied by the individual's human capital in the current period. Human capital ceases to evolve from age $R-1$ onward, $K_{g,t} = K_{g,R-1}$ for all $t \geq R-1$. Individuals who retire before $R-1$ supply no market hours and therefore accumulate no further human capital, but remain exposed to depreciation until $R-1$; their pension declines accordingly over that interval. Children who are still present at retirement continue to age and depart the household stochastically according to the same transition process described in Appendix S3.1. Match quality continues to evolve according to Equation (10), and the divorce decision follows the same surplus-based rule as during the working stage: the marriage dissolves whenever the marital surplus defined in Equation (24) turns negative. As belief types only distort expectations about future match-quality shocks, they continue to influence the divorce decision in retirement. Further details are provided in Appendix S3.2.

4 Quantification of the Model

This section describes how we quantify the model. We proceed in two steps. First, we set a subset of parameters outside the model: some are fixed at standard values from the literature, some are estimated separately, and some are normalized. Second, we estimate the remaining parameters jointly within the model by the simulated method of moments. In addition to our own survey (Section 2 and Appendix S1), the estimation draws on two external data sources, the Panel Study of Income Dynamics (PSID) and the American Time Use Survey (ATUS) (see Appendix S4.2).

4.1 Exogenous Parameters

Table 4 summarizes the exogenously set parameters. They are either normalizations, taken from existing studies or institutional sources, or estimated by us outside of the structural model.

Life-Cycle Timeline. Each model period represents one year, and both spouses share an identical life cycle. They enter the model at age 21 ($t = 1$) and work for up to 45 periods. From age 55 onwards, each working household retires with a constant annual probability p_r, and all households still working at age 66 retire with certainty, so that retirement begins somewhere between $t = 35$ and $t = 46$. The retirement probability is set externally to match an average retirement age of 61.8 in the US.[30] Retirement therefore lasts between 15 and 26 periods, after which death occurs deterministically at the end of $t = T = 60$ (age 80).

Fertility. We take the parameters of the conception probability in Equation (21) from Wesselink et al. (2017), who estimate age-specific natural conception probabilities. The probability is $\delta_{0,F} = 0.825$ at age 21 and declines at an annual rate of $\delta_{1,F} = 0.158$. Couples have at most $\bar{n} = 2$ children simultaneously living in the household.

[30] The target is the average retirement age estimated by the Center for Retirement Research at Boston College from CPS data. With a first draw at age 55 and forced retirement at 66, the implied mean retirement age is $\bar{a} = \sum_{k=0}^{10}(55+k)\, p_r(1-p_r)^k + 66\,(1-p_r)^{11}$. Setting $\bar{a} = 61.8$ yields $p_{\text{retire}} \approx 0.0831$, under which roughly 49% of households work until the age-66 cap.

Table 4: Preset and Directly Estimated Model Parameters

Parameter	Notation	Value	Source
I. Life cycle			
Age at model entry	age_1	21	
Period length (years)	Δ	1	
Terminal period (age 80)	T	60	
Earliest retirement age	$\underline{age}^r$	55	
Stochastic retirement rate	p_r	0.0831	
Mandatory retirement age	$\overline{age}^r$	66	
II. Fertility			
Conception probability, start of fertile window	$\delta_{0,F}$	0.825	Wesselink et al. (2017)
Annual decay of conception probability	$\delta_{1,F}$	0.158	Wesselink et al. (2017)
Maximum number of resident children	$\bar{n}$	2	
III. Preferences			
Annual discount factor	β	0.98	Attanasio et al. (2008)
IV. Budget constraint			
Annual interest rate	r	0.02	Attanasio et al. (2008)
Economies of scale in consumption	ρ	1.4023	Voena (2015)
OECD equivalence scale	$\nu(n)$	$1+0.2n$ / $1+0.3n$	OECD-modified scale[a]
Pension replacement rate	w_R	0.47	OECD (2013)
Average weekly hours, pension basis	$(\bar{h}_f, \bar{h}_m)$	26.2, 35.3	ATUS–CPS, 2013–2018[b]
Tax and transfer system	$\tau^{mar}(\cdot),\ \tau^{div}(\cdot)$	—	Guner et al. (2023)
V. Endowments			
Time endowment	T_g	1.0	Normalized[c]
Initial joint assets	A_1	0.0	PSID (1999–2019)
Initial human capital distribution	$(K_{f,1}, K_{m,1})$	Figure S4.1a	PSID (1999–2019)
VI. Beliefs and marriage setting			
Female bargaining weight	μ_f	0.5	Foerster et al. (2025)
Probability mother receives custody	$\Pr(S_f)$	0.78	CPS Child Support Supplement (Valle 2025)
Share of optimistic couples	$\Pr(\chi = O)$	0.74	Own survey, Section 2[d]

Notes: Parameters set outside the model: calibrated from existing studies and institutional data, or estimated directly from our data. [a] Applied to consumption, with n the number of children; married households use $1+0.2n$, divorced or custodial households $1+0.3n$. Adult economies of scale are captured separately by ρ. [b] Usual weekly hours of work, weighted means by sex, pooled across marital status; individuals aged 21–65 not enrolled in school. [c] Normalized to 100 weekly hours, so the average hours in panel IV correspond to $\bar{h}_f = 0.262$ and $\bar{h}_m = 0.353$ in model units. [d] Share of respondents with a stated belief of ever divorcing below the probability predicted from their observable characteristics.

Preferences. Following Attanasio et al. (2008), we set the annual discount factor to $\beta = 0.98$.

Budget Constraint. We set the annual risk-free interest rate to $r = 0.02$, following Attanasio et al. (2008). To account for economies of scale in household consumption ρ, we adopt the McClements equivalence scale as in Voena (2015). In addition, we express consumption in adult-equivalent terms using the OECD-modified equivalence scale, so that a household with n children divides consumption by $1 + 0.2n$ when married and by $1 + 0.3n$ when divorced or custodial. Retirement

income follows the U.S. net pension replacement rate of 47% (OECD 2013), applied at average weekly hours by gender from the ATUS–CPS (Table 4). Following Guner et al. (2023), we model the U.S. tax and transfer system as a function of labor income, marital status, and number of children. We adopt their implementation of four components: (i) a progressive labor income tax modeled via HSV tax functions that vary by marital status (Heathcote et al. 2017), (ii) the Earned Income Tax Credit (EITC), (iii) welfare transfers, and (iv) a flat tax on capital income.

Initial Endowments. We discipline initial human capital heterogeneity using the educational attainment observed among young, first-married couples in the PSID. Specifically, we restrict the sample to individuals aged 20–30 who are not enrolled in school, using survey waves from 1999 to 2019. We distinguish three levels (no college, some college, and college), estimate the joint distribution of spouses' education with survey weights, and normalize no college to $K_{g,1} = 1$. The distribution shows strong positive assortative matching, and wives are on average more educated than husbands (Figure S4.1a). Net wealth of these couples bunches at zero in all education groups (Figure S4.1b), so all households start with zero assets, $A_1 = 0$.

Beliefs and Marriage Setting. We set the wife's bargaining weight to $\mu_f = 0.5$, so that the marital surplus is divided equally between spouses throughout marriage, following Foerster et al. (2025). The probability that the mother receives child custody following divorce is $\Pr(S_f) = 0.78$, consistent with evidence from the U.S. Census Bureau's Current Population Survey Child Support Supplement, which reports that 78.2% of custodial parents are mothers (Valle 2025).

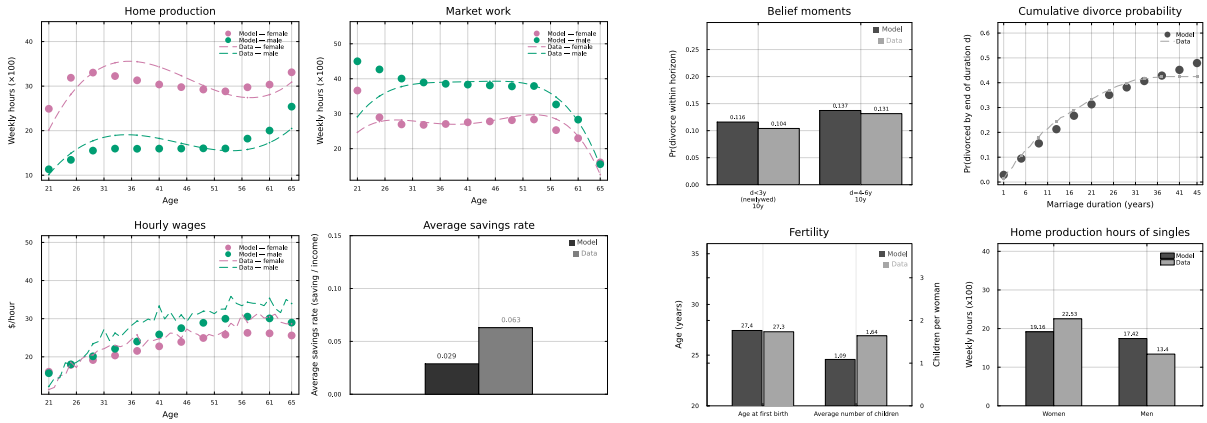
Our survey evidence (Section 2) shows no significant differences in belief types across gender or earner status. We therefore assume that both spouses share the same belief profile and form identical expectations about future match quality shocks.[31] We set the share of optimistic couples to $\Pr(\chi = O) = 0.74$, the share of survey respondents whose stated probability of ever divorcing falls below the probability predicted from their observable characteristics (Section 2). We model the remaining couples as realists, who perceive the match-quality process correctly (Section 3.6). Belief types are assigned at marriage independently of initial human capital and of the match-quality process. We treat the share of optimists as an upper bound. Respondents who report a divorce probability of exactly zero are classified as optimists against any positive prediction, and part of the measured gap may reflect private information about match quality or the random forest's extrapolation from older cohorts. Because the belief parameters are estimated from average expected divorce probabilities by marriage duration (see details below), pooled over optimists and realists, a large share of optimistic couples spreads the same average gap across more couples and so implies a smaller optimism bias. The estimated bias is therefore a lower bound, and so are the effects of optimism on each optimistic couple, including its welfare cost.

[31] This assumption can also be read as saying that any private signal about match quality is likely to become known to both spouses within a year, the length of a model period, so that couples converge to a common perception.

Figure 4: Model Fit

A. Time allocation, wages, and savings

B. Divorce, beliefs, and fertility



Notes: Model versus data. Panel A: home-production hours, market hours, and hourly wages by gender, ages 21–65, pooled across marital status (age-polynomial fits to ATUS 2003–2019), and the average saving rate of married households (PSID 2009–2019). Panel B: expected probability of divorce within ten years at marriage durations of 0–3 and 4–6 years (survey); cumulative probability of divorce by marriage duration (PSID 1999–2019); age at first birth and completed fertility of married women (PSID); and weekly home-production hours of singles, ages 21–65 (ATUS 2003–2019).

4.2 Indirect Inference

We estimate the remaining 24 parameters jointly by the method of simulated moments. From the ATUS (2003–2019), we target life-cycle profiles of market hours, home-production hours, and hourly wages by gender, home-production hours by age of the youngest child, and home-production hours of singles. From the PSID (1999–2019), we target the average saving rate of married households, the average age at first birth, completed fertility of married women, and the cumulative probability of divorce by marriage duration. From our survey, we target average divorce beliefs at a ten-year horizon for individuals married 0–3 and 4–6 years. Table 5 summarizes the resulting parameter values and Figure 4 shows the resulting fit. Section S4.1 in the supplemental material describes the computational details. Even though the parameters are jointly identified, we provide a heuristic account of identification below, pairing each parameter with the moment feature to which it is most sensitive.

Preferences and Home Production. The level and slope of the gender-specific market-hours profiles (ATUS) pin down the leisure weights ψ_f, ψ_m and the leisure curvature γ_ℓ; the estimates place women's weight on leisure slightly below men's, at 0.240 against 0.256. The home-production profiles play the analogous role for the home-production block: their level and shape identify the baseline weight ω_0 and curvature γ_Q, and how they rise after a birth and fade as the youngest child ages—together with the average age at first birth (PSID)—identify the child weight ω_1 and the age threshold $\overline{age}^y$, estimated at just under six years, so that a child raises the household's home-production needs until roughly school entry. Completed fertility then disciplines the warm glow η_{kids}, which values children independently of home production. The technology governing that

Table 5: Parameters Estimated Through the Method of Simulated Moments

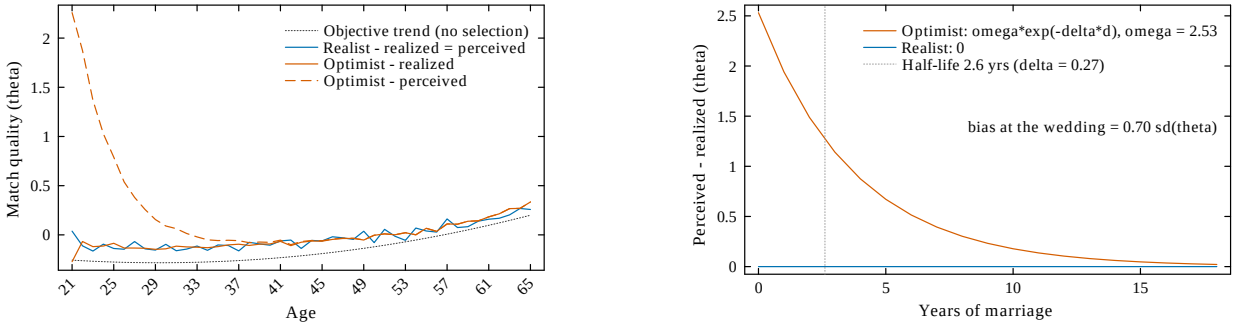
Description	Notation	Value
I. Preferences		
Leisure weight, women	ψ_f	0.240
Leisure weight, men	ψ_m	0.256
Leisure curvature	γ_ℓ	2.040
Home production curvature	γ_Q	1.364
Warm glow per child	η_{kids}	0.512
Consumption curvature	γ_C	1.5132
II. Home production		
Baseline home production weight	ω_0	0.156
Child weight (per-child age decay)	ω_1	0.183
Age threshold of youngest child	$\overline{age}^y$	5.981
Female productivity within marriage	a_f^{mar}	0.601
Female productivity after divorce	a_f^{div}	0.754
Male productivity after divorce	a_m^{div}	1.116
Substitution between spouses' inputs	σ	0.739
III. Match quality		
Level of match-quality innovation	μ_θ	-0.283
Curvature of duration trend	α_θ	3.80×10^{-4}
Timing of minimum match quality (years married)	t_0	9.352
Standard deviation of match-quality shocks	σ_θ	3.595
IV. Beliefs		
Perception bias at the start of marriage	ϕ_θ	2.531
Decay of perception bias	δ	0.265
V. Human capital and labor income		
Depreciation probability	p_δ	0.266
Hours sensitivity of upward mobility, women	ζ_f	1.513
Hours sensitivity of upward mobility, men	ζ_m	1.453
Age trend in learning rate	ζ_t	-0.019
Wage intercept	$\alpha_{0,K}$	2.506
Return to human capital	$\alpha_{1,K}$	0.131

Notes: Estimated by the method of simulated moments. Parameters set outside the model are reported in Table 4.

production is separated by marital status: singles' home-production hours identify the divorced productivities a_f^{div}, a_m^{div}, while the married gender gap—recovered from the contrast between the pooled and single profiles—identifies the within-marriage advantage a_f^{mar} and the substitutability σ. At $a_f^{mar} = 0.601$ the share parameter exceeds one half, placing the comparative advantage in home production with women during marriage. The average saving rate of married households (PSID) disciplines the consumption curvature γ_c.

Match Quality and Beliefs. Divorce rates themselves supply the identification of match quality and beliefs. The cumulative divorce profile by marriage duration (PSID) traces out the match-quality process (see eq. (10)): its level pins down μ_θ, the duration at which it reaches its trough t_0—estimated at roughly nine years of marriage, close to the duration at which the survey belief profile peaks—the curvature of the trend around that trough α_θ, and its dispersion σ_θ. The same profile cannot separate beliefs from fundamentals on its own, since the belief type and the match-

Figure 5: Perceived Match Quality Over the Life Cycle and the Decay of Optimism



(a) Match quality over the life cycle

(b) Decay of the optimism bias

Notes: Panel (a): average match quality by age among couples still married. Dotted: objective trend. Blue: realists, whose perceived and realized match quality coincide. Orange solid: optimists' realized match quality; orange dashed: their perceived match quality. The two realized lines differ only through selection into divorce. Panel (b): optimists' perception bias by years of marriage, with its half-life marked. Ages 21–65.

quality draw both affect the divorce decision. We therefore bring in the survey expected-divorce probabilities, whose level among newlyweds identifies the perception bias ϕ_θ and whose change at longer durations identifies its decay δ. The estimated decay of 0.265 per year implies a half-life of about 2.6 years. At the start of the life-cycle, optimists overstate mean match quality by 0.70 standard deviations of θ; after five years the bias has fallen to 0.19, and after ten to 0.05 (Figure 5). Optimism is thus a feature of the early years of marriage, exactly when the fertility, labor supply and saving decisions examined in Section 5 are made. Realists perceive the process correctly.

Human Capital and Labor Income. The level and slope of the wage profiles (ATUS) pin down the intercept $\alpha_{0,K}$ and the return to human capital $\alpha_{1,K}$, and the way wages co-move with labor-market attachment separates the depreciation probability p_δ from the hours sensitivities ζ_f, ζ_m and the age trend ζ_t. The latter is estimated to be negative, so that an hour of market work contributes less than half as much to human capital at the end of working life as it does at labor-market entry: hence, the years in which children arrive are also those in which careers are built.

Non-Targeted Moments. A natural check on the estimated model is whether it reproduces features of the data that were not targeted. Figure S4.2 and Table S4.1 in Section S4.5 of the supplementary material report such moments, none of which entered the objective function. The model generates most of the gender gap in hours within marriage and closely matches the gender wage gap (16.6 against 14.2 log points). It also nearly matches the child penalty (31.8% against 34.1% over the six years after a first birth), and it reproduces the positive association between hours worked and divorce expectations. It understates the gender earnings gap, explaining 63% of it.

5 Results

5.1 Effects of Optimism During Marriage

We first show how beliefs affect divorce, then how they affect specialization and fertility, and finally whether these effects persist once the bias has faded. We close with the implications for the gender gap and the child penalty.

Table 6: Joint Couple Outcomes During Marriage and Divorce, by Belief Type

	Realist (1)	Optimist (2)	Optimist − Realist (3)
Panel A: couple outcomes			
Years married	37.03	38.69	1.66
Age at first birth	28.27	27.17	−1.10
Completed fertility	1.04	1.12	0.08
Panel B: division of labor over marriage duration			
Female primary earner (%)	28.18	28.22	0.04
at 5 years of marriage	35.24	33.49	−1.75
at 10 years of marriage	31.01	30.71	−0.29
Panel C: divorce (%)			
Divorced within 5 years of marriage	12.2	8.5	−3.7
Divorced within 15 years of marriage	26.6	23.2	−3.5
Divorced by age 65	48.8	46.6	−2.2

Notes: Simulated couples (12,859 realist, 37,141 optimist). Column (3) is column (2) minus column (1). Female primary earner: share of married years in which the wife earns more than the husband. Completed fertility includes childless couples. Rows by years of marriage are cross-sections of couples still married at that duration. Panel C: share of all couples divorced.

Optimists stay married longer. Over the life cycle, optimistic couples are married 38.69 years against 37.03 for realists (Table 6, Panel A). The perceived premium on match quality makes optimists value the marriage above its true continuation value, so match-quality draws that violate a realist's participation constraint need not violate theirs. The effect is strongest early in marriage, when the bias is largest: 12.2% of realistic couples divorce within five years, against 8.5% of optimistic ones. By age 65, the gap has narrowed to 2.2 percentage points (Panel C).

Optimists specialize more early in marriage. The gains that make specialization within marriage worthwhile, namely pooled resources, economies of scale, shared home production, and the dynamic returns to market work, accrue only as long as the marriage lasts. Because optimists underestimate the probability of a bad match quality draw, they overstate how long these gains will last and specialize more. Specialization, in turn, feeds back into marital stability: by eroding the secondary earner's human capital, it lowers the value of divorce relative to staying married, so optimistic couples remain together longer than comparable realistic couple. Optimism is therefore partly self-fulfilling: the beliefs that induce specialization also make the marriage more durable, which in turn rationalizes part of that specialization ex post.

Table 7 reports the time allocation during marriage by belief type and earner status, together with the within-couple difference between the two spouses. Throughout the result section, we define the primary earner as the spouse with the higher average labor income over the married years of working life.

Table 7: Individual Outcomes During Marriage, by Belief Type

	Realist			Optimist		
	Primary	Secondary	Within-couple difference	Primary	Secondary	Within-couple difference
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: All married years						
Market work (h/wk)	41.77	19.04	22.73	41.73	18.75	22.98
Domestic work (h/wk)	13.55	34.89	−21.35	13.64	35.21	−21.57
Panel B: Married 5 years						
Market work (h/wk)	43.23	26.19	17.05	42.99	24.76	18.23
Domestic work (h/wk)	14.53	31.89	−17.36	14.93	33.27	−18.34
Panel C: Married 10 years						
Market work (h/wk)	43.60	18.16	25.44	43.53	18.25	25.27
Domestic work (h/wk)	13.52	37.53	−24.01	13.62	37.49	−23.87

Notes: Simulated averages over married years, ages 21–65. The primary (secondary) earner is the spouse with the higher (lower) average labor income during the marriage, assigned once per couple. Panel A pools all married years; Panels B and C cover couples still married at 5 and 10 years. Columns (3) and (6): primary minus secondary earner. Excludes couples that divorce in the first period.

Optimistic couples specialize more in the first years of marriage. After five years, the difference between the spouses' market hours is about one hour per week larger in optimistic than in realistic couples (18.2 against 17.1 hours), and the same holds for home production (Panel B). The difference disappears within the first decade as the optimism bias fades (Figure 5b). Averaged over all married years, optimistic couples are therefore only slightly more specialized than realistic couples (23.0 against 22.7 hours, Panel A).

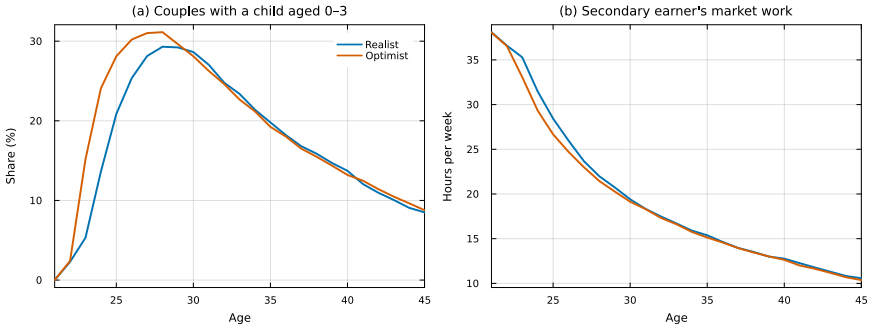
Optimism lowers market work for both spouses. At five years of marriage, optimistic secondary earners supply 24.76 weekly hours of market work against 26.19 for realists, and optimistic primary earners 42.99 against 43.23; both supply correspondingly more domestic work (33.27 against 31.89 and 14.93 against 14.53 hours). The adjustment is larger for the secondary earner. Optimistic couples underestimate the self-insurance value of the secondary earner's market work, namely the human capital the secondary earner would rely on after a divorce. For the primary earner, two forces of the belief bias counteract each other. Stronger specialization under the belief bias raises the return to the primary earner's career, but optimism also lowers the perceived insurance value of the primary earner's human capital, since the longevity of gains from pooling resources is overestimated. The second force dominates, though only slightly. Consistent with this, optimistic couples supply 1.79 more weekly hours of home production at five years of marriage (Table 6).

Because the estimated home-production technology places greater weight on the wife's time ($a_f^{mar} =$

0.601), the secondary earner is usually the wife. Optimism therefore shifts women in particular toward domestic work and away from the returns to market experience: at five years of marriage, the wife out-earns her husband in 33.49% of optimistic couples against 35.24% of realistic ones (Table 6, Panel B).

Fertility amplifies the early differences. Optimistic couples have their first child about one year earlier than realistic couples (27.17 against 28.27) and have about 8% more children overall (Table 6). Children raise the value of home production, and the early fertile years coincide with the steepest returns to labor-market experience, so children strengthen the motive for one spouse to shift toward domestic work. Because fertility is a choice, beliefs affect it directly: optimists underestimate what children cost if the marriage ends, namely the lost returns to specialization and the burden of single-parent custody with lower human capital due to greater marital specialization.

Figure 6: Early Fertility and the Secondary Earner's Market Work, by Belief Type



Notes: Simulated couples still married at each age; optimists solid, realists dashed. Panel (a): share of couples whose youngest child is aged 0–3. Panel (b): weekly market hours of the secondary earner.

Figure 6 shows that the timing of fertility and the specialization gap move together. Optimistic couples have young children earlier: at age 24, they are 10.8 percentage points more likely than realistic couples to have a child aged 0–3 (Panel a). In the same years, optimistic secondary earners reduce their market work: at age 24, they work 2.2 fewer hours per week than realistic secondary earners (Panel b). Both gaps open in the early twenties and close by about age 30.

The bias fades, but human capital adjusts slowly. The perception bias decays with marriage duration, with an estimated half-life of 2.6 years, and the differences in time allocation fade with it. Figure 7 traces the gap between optimistic and realistic couples over the first twenty years of marriage. The gap in the secondary earner's market hours peaks at about two hours per week three years into the marriage and has disappeared after nine years (Figure 7, Panel c). By ten years of marriage, the within-couple gap in market hours is 25.27 hours for optimists against 25.44 for realists, and home production differs by less than a tenth of an hour per week (Table 7).

The decisions taken while the bias is strong, however, are not easily reversed. Children born early in the marriage raise the value of home production until school age, and the human capital the secondary earner forgoes in these years is hard to recover, because the return to market hours in

human capital declines with age. The human capital gap therefore closes much more slowly than the gap in hours (Figure 7, Panel d): it peaks at 0.06 skill levels after five years, is still 0.05 levels, about three standard errors, after ten years, and closes only toward the end of the second decade of marriage. Optimistic primary earners also reduce their market hours early on, by about 0.3 hours per week with persistent effects on human capital accumulation. Given the selection effect with endogenous divorce, we also report in the figure the values for all married couples, including those who eventually divorced.

Implications for the gender gap and the child penalty. To gauge how much of the gender gap optimism accounts for, we ask what the gap would be if every household held correct beliefs. We simulate an economy populated entirely by realists and compare it with the baseline; the difference between the two is the part of the gap caused by optimism. Table A.1 asks how much of the gender gap would survive if every household held correct beliefs. Optimism accounts for 1.6 of the 27.1 points of the gender gap in annual labor income (6%) and for 1.2 of the 18.8 points in human capital (7%).

The same decomposition applied to the child penalty (Table A.2) shows that optimism accounts for 1.1 of the 31.8 points of the earnings penalty in the six years after the first birth (3%), and for 1.7 of the 25.0 points six to ten years after birth (7%). The contribution grows with time since birth, consistent with the persistent effect of the human capital forgone early in the marriage. Optimism is thus a quantitatively relevant, though not dominant, driver of both gaps.

5.2 Propagating Effects of Optimism Beyond Marriage

How beliefs shape outcomes after divorce. At divorce, resource pooling ends, custody is assigned to one parent, and the tax and transfer system for singles applies. Because divorce is assumed to be absorbing, beliefs about match quality play no further role: a divorced optimist and a divorced realist face the same problem. Beliefs nonetheless shape outcomes after divorce, through what happens during the marriage. First, they shape what spouses carry out of the marriage: optimistic couples specialize more and have children earlier, so the secondary earner, and to a lesser extent the primary earner, accumulates less human capital (Section 5.1).

Beliefs also shape who divorces. An optimistic spouse leaves only when their own outside option is strong enough to outweigh an overly favorable view of the match, so divorced optimists are a selected group, and this selection is itself a consequence of beliefs.

Finally, they shape whether couples divorce at all. In the model, this channel operates almost entirely at the very start of marriage: 4.4% of realistic couples separate in the first year and no optimistic couple does, whereas among couples who marry, the share divorced by any later age is nearly identical across belief types (Table 8, columns 5 and 6).

Because these channels operate simultaneously, two comparisons are needed. A comparison of all optimistic with all realistic couples, whether still married or divorced. This measures the total

effect of beliefs, since the belief type is randomly assigned at marriage.

The second compares only couples who divorce. It shows how divorced optimists and realists differ, but because beliefs also determine who divorces, it mixes what spouses carry out of the marriage with selection into divorce. We use the first comparison to measure the financial cost of underinsuring against divorce through optimism, and the second to show how selection shapes outcomes among divorcees.

Table 8: Optimist–Realist Gaps in the Secondary Earner's Outcomes, by Marital Status

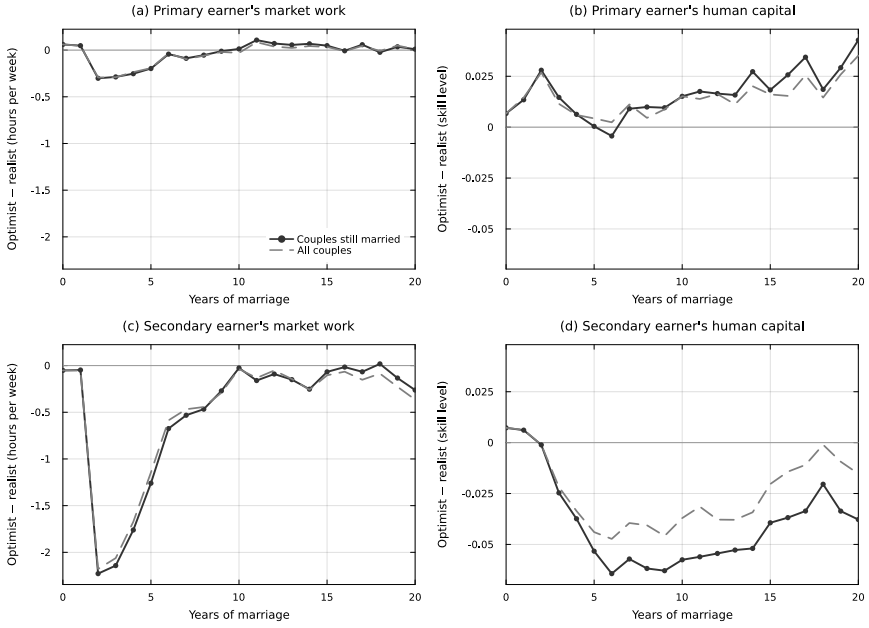
		Decomposition		
	Total gap	Divorce incidence	Among married	Among divorced
	(1)	(2)	(3)	(4)
Panel A. Human capital (skill level)				
Age 30	−0.046	−0.001	−0.041	−0.004
Age 40	−0.035	−0.003	0.001	−0.033
Age 50	−0.039	0.011	−0.001	−0.049
Panel B. Hourly wage ($)				
Age 30	−0.11	0.00	−0.10	−0.01
Age 40	−0.10	−0.01	0.01	−0.10
Age 50	−0.13	0.03	0.00	−0.17

Notes: Optimist minus realist difference in the secondary earner's outcomes at ages 30, 40, and 50, for all simulated ever-married couples. Belief type is randomly assigned, so column (1) is the causal effect of optimism. Columns (2)–(4) split it into the contribution of the share divorced and the weighted gaps among married and divorced couples. Share divorced by ages 30, 40, and 50: 14.7, 28.3, and 37.1% (realists); 14.5, 28.1, and 37.5% (optimists). Earner roles as in Table 7.

The cost of optimism ends up with those who divorce. We focus on the secondary earner, for two reasons. The adjustment to optimism during marriage falls mainly on the secondary earner, whose human capital gap is the largest and most persistent (Section 5.1). For the primary earner, the early reduction in market hours is small, about 0.3 hours per week, and so is the resulting human capital gap. Moreover the secondary earner is usually the wife, who also receives custody of the children in most divorces.

Table 8 reports the optimist–realist gap in the secondary earner's outcomes at ages 30, 40, and 50, together with a decomposition into three components that sum to the total. The divorce-incidence component, the difference in the share divorced by that age multiplied by the average difference in the outcome between divorced and married couples, captures the part of the gap that arises because optimists are divorced more or less often. The two remaining components are the gaps among couples still married and among divorced couples, each weighted by the average share of couples in that state. The human capital gap is of similar size at all three ages, about 0.04 skill levels, but where it sits shifts over the life cycle. At age 30, it arises almost entirely among couples still married (-0.041). By ages 40 and 50, it arises almost entirely among divorced couples (-0.033 and -0.049), and the component among married couples is zero. Hourly wages follow the same

Figure 7: Optimist–Realist Gaps in Market Hours and Human Capital, by Years of Marriage



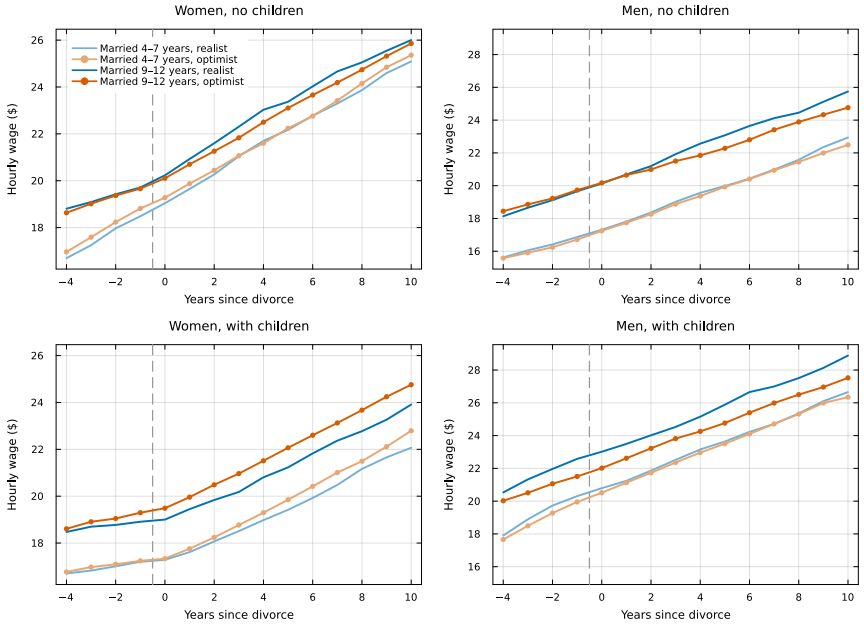
Notes: Optimist minus realist difference in weekly market hours (left) and human capital, the model's skill level (right), for primary (top) and secondary earners (bottom), by years of marriage. Couples still married at each duration, so the differences partly reflect selection into divorce. Each column shares a vertical scale.

pattern: optimistic secondary earners earn $0.10 less among married couples at age 30, and $0.10 and $0.17 less among divorced couples at ages 40 and 50. The divorce-incidence component is close to zero throughout: the gap does not arise because optimists divorce more or less often, but from what divorcing optimists carry out of the marriage.

This pattern raises the question of why secondary earners close the human capital gap if they stay married, but not if they divorce. Within surviving marriages, the gap closes over the second decade (Figure 7, solid lines). Once the bias has faded, optimistic secondary earners work slightly more than realistic ones, by 0.1 to 0.2 hours per week, and gradually catch up. Part of the convergence also reflects which couples remain married, which these cross-sections cannot separate. After divorce, there is no such catch-up: divorced optimistic and realistic mothers work the same hours, so the human capital gap they carry out of the marriage persists (Figure 7, dashed lines). Because the return to market hours in human capital declines with age, any later catch-up would in any case be slow. The effect is modest, corresponding to a wage about 0.5–0.7% lower, but persistent, and it is concentrated among the roughly 37% of couples who have divorced by age 50.

Among divorcees, selection masks the penalty. Comparisons among divorcees alone understate this cost. Figure 8 shows mean hourly wages of optimists and realists from four years before to ten years after divorce, by gender and by whether the couple had children, comparing both belief types within the same divorce year. Wage gaps among divorcees are small, typically 1–2%, and differ in sign across groups. The clearest exception points to selection. Optimistic mothers who divorce after four to seven years of marriage earn more than realistic mothers before, at, and

Figure 8: Hourly Wages around Divorce, by Belief Type, Gender, and Presence of Children



Notes: Mean hourly wage (model dollars) of simulated optimists (orange) and realists (blue) from four years before to ten years after divorce; year 0 is the first year after divorce. Columns: gender; rows: children at divorce. Lighter color: divorces after 4–7 years of marriage; darker color: after 9–12 years. Sample: couples married in the first period who divorce during working life and are observed over the full window. Realists are reweighted to the optimists' distribution of divorce years, so both are compared at the same age.

after divorce.

Table 9 shows why. These mothers started married life with more education than divorcing realistic mothers (0.12 skill levels, a difference fixed before beliefs act). In the last year of marriage, they also earn \$0.42 more than optimistic mothers of the same age who stay married. Divorcing realistic mothers, by contrast, earn no more than realistic mothers who stay (−\$0.10). Optimistic mothers leave early marriages only from strong positions, consistent with an overly favorable view of the match that only a strong outside option can outweigh. After longer marriages, when the bias has faded, divorcing mothers of both types are similarly selected (\$0.28 and \$0.29). The comparison among divorcees therefore nets two effects of beliefs against each other: the human capital forgone during the marriage and the stronger selection of optimists into divorce, which is why the comparison over all couples above is the relevant measure of what optimism costs in human capital and forgone wage terms.[32]

Optimism raises poverty among divorced women. The same logic applies to poverty. Table 10 reports poverty among all women by belief type, using a relative poverty line of 50% of median equivalised income. Women who held optimistic beliefs are slightly more often poor: 1.2% against 1.1% of woman-years overall, and 2.8% against 2.2% among divorced women. Panel B decomposes the 0.17 percentage-point gap: lower divorce incidence among optimists reduces it by 0.06 points, while higher poverty among married women adds 0.09 points and higher poverty among

[32]Figure S6.1 in the appendix shows the same wage paths by earner rank during the marriage instead of gender.

Table 9: Selection into Divorce among Mothers, by Belief Type

	Initial education (skill level)			Wage relative to mothers who stay ($)	
	Realist (1)	Optimist (2)	Optimist − Realist (3)	Realist (4)	Optimist (5)
Married 4–7 years	1.92	2.04	0.12	−0.10 (0.24)	0.42 (0.12)
Married 9–12 years	2.02	2.06	0.05	0.28 (0.33)	0.29 (0.17)

Notes: Simulated mothers who divorce with children after the indicated marriage duration. Columns (1)–(3): the wife's skill level at age 21, which reflects her education and is determined before beliefs play a role; realists are reweighted to the optimists' divorce years. Columns (4)–(5): the mother's hourly wage in her last married year minus the mean wage of same-belief mothers who are married with children at the same age and still married two years later. Standard errors in parentheses; wages in model dollars.

divorced women 0.14 points. As for human capital, the cost of optimism lies not in divorcing more often but in being less well prepared when divorce occurs.

Table 10: Poverty by Belief Type

	Realist (1)	Optimist (2)	Optimist − Realist (3)
Panel A. Relative line (50% of median equivalized income)			
Headcount P0 (%), all women	1.07	1.24	0.17
married women	0.64	0.76	0.12
divorced women	2.20	2.76	0.56
Poverty gap P1 (%), all women	0.26	0.29	0.02
Severity P2 (%), all women	0.12	0.12	0.00
Panel B. Decomposition of the headcount gap in Panel A (pp)			
Total gap in headcount			0.17
due to divorce incidence			−0.06
due to poverty among married women			0.09
due to poverty among divorced women			0.14
Women	12,859	37,141	

Notes: Simulated woman-years, ages 21–55, by belief type during marriage. A woman-year is poor if equivalized income (modified OECD scale) is below 50% of the median ($21.8k). P0, P1, P2: Foster–Greer–Thorbecke headcount, gap, and severity indices. Panel B splits the headcount gap into differences in divorce incidence and in poverty within marital status.

5.3 The Welfare Implications of Optimism

Optimism lowers human capital and concentrates this cost on couples who divorce (Section 5.2). Whether it makes optimists worse off is not obvious, however. Optimists also have more children, who enter utility directly, have higher home production, and they stay in marriages that realists would leave. This section asks what optimism costs in welfare terms, in which states of the world, and whether wives or husbands bear it.

Welfare concept. We take the perspective of a paternalistic planner who knows the true match-quality process. For each household, we evaluate the realized lifetime utility using the *true* match

quality, so that optimists' distorted beliefs enter only through the choices they induce, never through the utility they are credited with. Match quality enters utility only while the couple is married; after a divorce, its contribution is zero. We then ask by how much an optimistic household's consumption must be raised in every period for it to reach the average realized lifetime utility of a realistic household, i.e., the consumption-equivalent variation (CEV) of correcting beliefs, similar to Balleer et al. (2026) and Exler et al. (2025). A positive number implies that optimism is costly in welfare terms.

Table 11: Welfare Cost of Optimism, Ex Ante and by Realized Match Quality

	Ex ante	Ex post: realized match quality		
	All couples	Low	Middle	High
	(1)	(2)	(3)	(4)
Panel A: CEV				
Household	0.27	8.63	0.85	−4.60
Women	0.31	8.56	0.62	−4.25
Men	0.23	8.70	1.08	−4.95
Panel B: Household CEV by utility component				
Consumption (equivalized)	1.61	1.51	1.98	1.31
Leisure	−0.50	−0.86	−0.27	−0.31
Home production	1.99	1.63	2.18	2.19
Children (warm glow)	−4.01	−4.07	−4.09	−3.79
Match quality	1.18	9.89	1.05	−4.16

Notes: Consumption-equivalent variation (CEV), in percent: the increase in per-period consumption optimists need to reach realists' average lifetime utility; positive values are a cost of optimism. Column (1): all couples, the ex-ante cost since belief type is randomly assigned. Columns (2)–(4): terciles of the discounted sum of true match quality. Panel B decomposes the household CEV by utility component using a first-order approximation, so the components sum only approximately to the total.

Ex ante and ex post. Averaged over all couples, the CEV is the *ex-ante* cost of optimism, since random assignment makes average realized utility equal to expected utility under the true process. To see in which states of the world optimism is costly, we also compute the CEV *ex post*, within terciles of the discounted sum of the match-quality draws over the life cycle. These terciles depend only on the match quality drawn for each couple, not on whether they stay together, so within a tercile optimists and realists share the same luck and differ only in their beliefs. We do not condition on divorce for this purpose, since divorce is itself shaped by beliefs (Section 5.2). Lifetime utility is the sum of the utility from consumption, leisure, home production, children, and match quality. Approximating the CEV to first order makes it additive in these components, and Panel B reports the contribution of each.

Optimism is a bet on the marriage. On average, the ex-ante welfare cost of optimism is 0.27% of consumption (Table 11, column 1 in Panel A). Optimists lose the equivalent of 1.61% through lower consumption, 1.99% through less home production, and 1.18% through lower realized match quality. These losses are largely offset by the warm glow from the additional children optimists have,

worth 4.01%, and by slightly more leisure, worth 0.50%. The average, however, hides large and opposite effects across states of the world. When the marriage turns out badly, optimism costs 8.6% of consumption; when it turns out well, optimism yields a gain of 4.6%. Most of this pattern runs through match quality (Panel B). Its contribution moves from a cost of 9.9% in bad matches to a gain of 4.2% in good ones. Realists who draw a bad match leave it, and from then on receive no match quality at all, whereas, at the margin, optimists stay and bear it. In good matches, the same logic works in reverse: match quality fluctuates, and realists who draw a temporarily bad spell sometimes leave a marriage that would have recovered, whereas optimists stay and may experience the good realizations that follow.

Who bears the bet. Within the couple, the bet is shared almost equally: ex ante, optimism costs wives 0.31% and husbands 0.23%. Within marriage, spouses consume equally and share match quality, children and home production, so the gender difference arises mostly after divorce. Optimistic couples divorce later, and divorced optimist wives consume about 3% less than divorced realist wives, while divorced optimist husbands consume as much as realist ones. Husbands, in turn, gain more leisure from optimism, because divorce reduces men's leisure more than women's. In good matches these two forces combine, and husbands benefit more from optimism than wives (-4.95% vs -4.25%). In bad matches they are offset by wives' larger post-divorce gains in home production and children, since mothers usually keep custody, so the cost is nearly equal (8.56% vs 8.70%).

6 Conclusion

This paper examines the role of subjective divorce expectations for intra-household decisions over the life cycle. Combining novel survey evidence with a structural model of the household, we quantify how optimistic beliefs about marital stability affect specialization, fertility, and human capital accumulation during marriage, and how the resulting allocations shape individual outcomes and welfare in the context of endogenous divorce.

Married individuals in the United States systematically underestimate their risk of divorce, most strongly early in marriage, and those who consider divorce less likely specialize more and plan earlier births. Embedding these beliefs in a life-cycle model with endogenous divorce, we find that optimism has modest effects on average but large effects in the state it mispredicts. Optimistic couples specialize more, have children earlier and have more of them. The human capital the secondary earner forgoes is recovered if the marriage lasts but not if the marriage ends. Optimism accounts for about 6% of the gender gap in labor income and up to 7% of the child penalty. Its ex-ante welfare cost is 0.27% of consumption, but 8.6% when the match turns out badly.

These results suggest that subjective expectations about divorce deserve a more prominent place in the study of household behavior. Models of the family typically assume that spouses correctly perceive the risk of dissolution; our evidence indicates that most do not, and that the decisions

they take under optimistic beliefs shape gender inequality long after the bias has faded. Our analysis opens several avenues for future research.

First, our model takes the belief process as given, with the decay of the bias over the marriage standing in for learning about match quality. Learning can account for this decay, but not for why beliefs at the start of marriage are optimistic on average. Our survey points to candidate explanations. Optimism is largest among newlyweds, consistent with selection into marriage on favorable signals about the match. Respondents who see their own risk as furthest below that of comparable couples are also the least responsive to information about the population divorce rate, consistent with motivated beliefs. Modeling how initial beliefs form, and distinguishing between these explanations, is a natural next step.

Second, we model beliefs at the level of the couple. Allowing beliefs to differ between spouses would require a protocol for resolving disagreement over the continuation value of the marriage, and would allow the more optimistic partner to shape the terms on which the other specializes; dyadic data such as those collected by Delavande et al. (2026) make such an extension feasible.

Third, our model features a single liquid asset that is divided equally at divorce. Couples, however, choose between liquid assets and illiquid ones, such as housing, which are costly to divide upon dissolution, as well as between jointly and individually held assets, whose treatment at divorce depends on the marital property regime. Optimism may tilt household portfolios toward joint, illiquid investments and away from individual precautionary savings, the adjustment respondents most frequently name when confronted with a high divorce risk.

Fourth, allowing for remarriage might affect the cost of optimism post-divorce, but it is an option that is least available to secondary earners, who typically retain custody of the children, especially those with low human capital.

Finally, because beliefs appear largely unresponsive to information, policies that act on the consequences of divorce rather than on beliefs, such as the joint or separate taxation of couples, or enforcing alimony payments, may interact with optimism in ways that existing policy evaluations do not capture. The empirical and quantitative framework developed here provides a starting point for this agenda.

A Details on Model Results

Table A.1: How Much of the Gender Gap Is Caused by Optimism

	Gender gap (%)			Caused by optimism	
	All realist (1)	All optimist (2)	Baseline (3)	Points of the gap (4)	Share of the gap (%) (5)
Hourly wage, employed	2.4	3.3	3.1	0.63	20.8
Hourly wage, all	10.0	10.9	10.7	0.65	6.0
Annual labor income	25.5	27.6	27.1	1.59	5.9
Market hours per week	25.5	27.1	26.7	1.21	4.5
Human capital	17.6	19.2	18.8	1.23	6.5

Notes: Gender gap: $100 \times (1 - \bar{x}_{\text{women}}/\bar{x}_{\text{men}})$ over working-life person-years (ages 21–65), married and divorced pooled; positive values mean women are below men. Column (1): all households realistic; column (2): all optimistic; column (3): baseline population, 74.3% optimistic. Because the model has no general-equilibrium feedback, these are valid counterfactuals. Column (4): column (3) minus column (1), the part of the gap due to optimism; column (5): column (4) as a share of the baseline gap, which is unreliable where that gap is small (employed wages). Employed wages condition on positive market hours.

Table A.2: How Much of the Child Penalty Is Caused by Optimism

	Child penalty (%)			Caused by optimism	
	All realist (1)	All optimist (2)	Baseline (3)	Points of the penalty (4)	Share of the penalty (%) (5)
Labor income, $\tau = 0$–5	30.7	32.1	31.8	1.07	3.4
	(0.6)	(0.3)	(0.3)	(0.54)	(1.7)
Labor income, $\tau = 6$–10	23.2	25.5	25.0	1.73	6.9
	(0.8)	(0.4)	(0.4)	(0.69)	(2.8)

Notes: Child penalty as in Kleven et al. (2019): $P_\tau = 1 - [\bar{x}^w_\tau/\bar{x}^w_b]/[\bar{x}^h_\tau/\bar{x}^h_b]$, where τ is years since the first birth, the base b averages $\tau \in \{-2, -1\}$, and the husband's path is the counterfactual; each row averages P_τ over the window shown. Sample: couples married at first birth (9,542 realist, 30,341 optimist); earnings include zeros. The first row is the untargeted moment in Table S4.1. Columns as in Table A.1; each column is a separate event study, so it reflects both how parents behave and who becomes a parent.

References

Adams-Prassl, Abi, Teodora Boneva, Marta Golin, and Christopher Rauh. Perceived returns to job search. *Labour Economics*, 80:102307, 2023.

Adda, Jérôme, Christian Dustmann, and Katrien Stevens. The career costs of children. *Journal of Political Economy*, 125(2):293–337, 2017.

Aguiar, Mark, Erik Hurst, and Loukas Karabarbounis. Time use during the Great Recession. *American Economic Review*, 103(5):1664–1696, 2013.

Angelov, Nikolay, Per Johansson, and Erica Lindahl. Parenthood and the gender gap in pay. *Journal of Labor Economics*, 34(3):545–579, 2016.

Attanasio, Orazio, Hamish Low, and Virginia Sánchez-Marcos. Explaining changes in female labor supply in a life-cycle model. *American Economic Review*, 98(4):1517–1552, 2008.

Attanasio, Orazio P., and Katja M. Kaufmann. Education choices and returns to schooling: Mothers' and youths' subjective expectations and their role by gender. *Journal of Development Economics*, 109:203–216, 2014.

Aughinbaugh, Alison, and Donna S. Rothstein. Patterns of marriage and divorce from ages 15 to 55: Evidence from the NLSY79. *Monthly Labor Review*, 2024. U.S. Bureau of Labor Statistics.

Bachmann, Rüdiger, Giorgio Topa, and Wilbert van der Klaauw, editors. *Handbook of Economic Expectations*. Academic Press, London, 2023.

Baker, Lynn A., and Robert E. Emery. When every relationship is above average: Perceptions and expectations of divorce at the time of marriage. *Law and Human Behavior*, 17(4):439–450, 1993.

Balleer, Almut, Georg Duernecker, Susanne Forstner, and Johannes Goensch. The effects of biased labor market expectations on consumption, wealth inequality, and welfare. *American Economic Journal: Macroeconomics*, 18(1):297–335, 2026.

Bernheim, B. Douglas, and Dmitry Taubinsky. Behavioral public economics. In B. Douglas Bernheim, Stefano DellaVigna, and David Laibson, editors, *Handbook of Behavioral Economics: Applications and Foundations*, volume 1, pages 381–516. Elsevier, Amsterdam, 2018.

Berresheim, Ursula, and David Koll. Staying together forever? Life-cycle effects of overoptimistic couples. CRC TR 224 Discussion Paper 734, University of Bonn and University of Mannheim, 2026.

Blundell, Richard, Monica Costa Dias, Costas Meghir, and Jonathan Shaw. Female labor supply, human capital, and welfare reform. *Econometrica*, 84(5):1705–1753, 2016.

Boyer-Pennington, Michelle E., John Pennington, and Camille Spink. Students' expectations and optimism toward marriage as a function of parental divorce. *Journal of Divorce & Remarriage*, 34 (3–4):71–87, 2001.

Breiman, Leo. Random forests. *Machine Learning*, 45(1):5–32, 2001.

Bruine de Bruin, Wändi, Baruch Fischhoff, Susan G. Millstein, and Bonnie L. Halpern-Felsher. Verbal and numerical expressions of probability: "It's a fifty-fifty chance". *Organizational Behavior and Human Decision Processes*, 81(1):115–131, 2000.

Campbell, Kelly, David W. Wright, and Carlos G. Flores. Newlywed women's marital expectations: Lifelong monogamy? *Journal of Divorce & Remarriage*, 53(2):108–125, 2012.

Chang, Minsu. A house without a ring: The role of changing marital transitions. Working paper, University of Pennsylvania, 2019.

Chawla, Nitesh V., Kevin W. Bowyer, Lawrence O. Hall, and W. Philip Kegelmeyer. SMOTE: Synthetic minority over-sampling technique. *Journal of Artificial Intelligence Research*, 16:321–357, 2002.

Chiappori, Pierre-André, and Maurizio Mazzocco. Static and intertemporal household decisions. *Journal of Economic Literature*, 55(3):985–1045, 2017.

Coibion, Olivier, Yuriy Gorodnichenko, and Tiziano Ropele. Inflation expectations and firm decisions: New causal evidence. *Quarterly Journal of Economics*, 135(1):165–219, 2020.

Coibion, Olivier, Yuriy Gorodnichenko, and Michael Weber. Monetary policy communications and their effects on household inflation expectations. *Journal of Political Economy*, 130(6): 1537–1584, 2022.

Coibion, Olivier, Dimitris Georgarakos, Yuriy Gorodnichenko, and Maarten van Rooij. How does consumption respond to news about inflation? Field evidence from a randomized control trial. *American Economic Journal: Macroeconomics*, 15(3):109–152, 2023.

Conlon, John J., Laura Pilossoph, Matthew Wiswall, and Basit Zafar. Labor market search with imperfect information and learning. NBER Working Paper 24988, National Bureau of Economic Research, 2018.

Cornell Law School, Legal Information Institute. Equitable distribution. https://www.law.cornell.edu/wex/equitable_distribution, 2024.

Costa-Ramón, Ana, Michaela Slotwinski, Ursina Schaede, and Johannes Stupperich. Happily under-insured ever after? The role of beliefs in household specialization. Unpublished manuscript, 2026.

Cubeddu, Luis, and José-Víctor Ríos-Rull. Families as shocks. *Journal of the European Economic Association*, 1(2–3):671–682, 2003.

Deaton, Angus, and Christina Paxson. The effects of economic and population growth on national saving and inequality. *Demography*, 34(1):97–114, 1997.

Delavande, Adeline, and Basit Zafar. University choice: The role of expected earnings, nonpecuniary outcomes, and financial constraints. *Journal of Political Economy*, 127(5):2343–2393, 2019.

Delavande, Adeline, Alessandra Voena, and Basit Zafar. Subjective divorce risk, perceived outside options, and intra-household allocation. Unpublished manuscript, 2026.

Doepke, Matthias, and Fabian Kindermann. Bargaining over babies: Theory, evidence, and policy implications. *American Economic Review*, 109(9):3264–3306, 2019.

Doepke, Matthias, and Michèle Tertilt. Families in macroeconomics. In John B. Taylor and Harald Uhlig, editors, *Handbook of Macroeconomics*, volume 2B, pages 1789–1891. Elsevier, Amsterdam, 2016.

Exler, Florian, Igor Livshits, James MacGee, and Michèle Tertilt. Consumer credit with over-optimistic borrowers. *Journal of the European Economic Association*, 23(4):1431–1478, 2025.

Fernández, Raquel, and Joyce Cheng Wong. Divorce risk, wages and working wives: A quantitative life-cycle analysis of female labour force participation. *Economic Journal*, 124(576):319–358, 2014.

Fernández, Raquel, and Joyce Cheng Wong. Free to leave? A welfare analysis of divorce regimes. *American Economic Journal: Macroeconomics*, 9(3):72–115, 2017.

Fernández, Raquel, Alessandra Fogli, and Claudia Olivetti. Mothers and sons: Preference formation and female labor force dynamics. *Quarterly Journal of Economics*, 119(4):1249–1299, 2004.

Foerster, Hanno. Untying the knot: How child support and alimony affect couples' dynamic decisions and welfare. *Review of Economic Studies*, 92(5):3029–3066, 2025.

Foerster, Hanno, Tim Obermeier, and Bastian Schulz. Job displacement, remarriage, and marital sorting. Working paper, 2025.

Foltyn, Richard, and Jonna Olsson. Subjective life expectancies, time preference heterogeneity, and wealth inequality. *Quantitative Economics*, 15(3):699–736, 2024.

Fowers, Blaine J., Kelly H. Montel, and Eileen Lyons. Positive illusions about marriage among married and single individuals. *Journal of Family Psychology*, 15(1):95–109, 2001.

Gallen, Yana, Juanna Schrøter Joensen, Eva Rye Johansen, and Gregory F. Veramendi. The labor market returns to delaying pregnancy. IZA Discussion Paper 18529, IZA Institute of Labor Economics, 2026.

Gong, Yifan, Ralph Stinebrickner, and Todd Stinebrickner. Marriage, children, and labor supply: Beliefs and outcomes. *Journal of Econometrics*, 231(1):148–164, 2022.

Gorchoff, Sara M., Oliver P. John, and Ravenna Helson. Contextualizing change in marital satisfaction during middle age: An 18-year longitudinal study. *Psychological Science*, 19(11):1194–1200, 2008.

Goussé, Marion, Nicolas Jacquemet, and Jean-Marc Robin. Marriage, labor supply, and home production. *Econometrica*, 85(6):1873–1919, 2017.

Grall, Timothy. Custodial mothers and fathers and their child support: 2017. Current Population Reports P60-269, U.S. Census Bureau, 2020.

Greenwood, Jeremy, Nezih Guner, Georgi Kocharkov, and Cezar Santos. Technology and the changing family: A unified model of marriage, divorce, educational attainment, and married female labor-force participation. *American Economic Journal: Macroeconomics*, 8(1):1–41, 2016.

Greenwood, Jeremy, Nezih Guner, and Guillaume Vandenbroucke. Family economics writ large. *Journal of Economic Literature*, 55(4):1346–1434, 2017.

Grevenbrock, Nils, Max Groneck, Alexander Ludwig, and Alexander Zimper. Cognition, optimism, and the formation of age-dependent survival beliefs. *International Economic Review*, 62(2): 887–918, 2021.

Guner, Nezih, Remzi Kaygusuz, and Gustavo Ventura. Rethinking the welfare state. *Econometrica*,

91(6):2261–2294, 2023.

Haaland, Ingar, Christopher Roth, and Johannes Wohlfart. Designing information provision experiments. *Journal of Economic Literature*, 61(1):3–40, 2023.

Heathcote, Jonathan, Kjetil Storesletten, and Giovanni L. Violante. Optimal tax progressivity: An analytical framework. *Quarterly Journal of Economics*, 132(4):1693–1754, 2017.

Heimer, Rawley Z., Kristian Ove R. Myrseth, and Raphael S. Schoenle. YOLO: Mortality beliefs and household finance puzzles. *Journal of Finance*, 74(6):2957–2996, 2019.

Helweg-Larsen, Marie, Hilary G. Harding, and William M. P. Klein. Will I divorce or have a happy marriage?: Gender differences in comparative optimism and estimation of personal chances among U.S. college students. *Basic and Applied Social Psychology*, 33(2):157–166, 2011.

Hersch, Joni, and Jennifer Bennett Shinall. When equitable is not equal: Experimental evidence on the division of marital assets in divorce. *Review of Economics of the Household*, 18(3):655–682, 2020.

Imai, Susumu, and Michael P. Keane. Intertemporal labor supply and human capital accumulation. *International Economic Review*, 45(2):601–641, 2004.

Jakobsen, Katrine Marie, Thomas H. Jørgensen, and Hamish Low. Fertility and family labor supply. *American Economic Review*, forthcoming, 2026.

Justia. Property division laws in divorce: 50-state survey. https://www.justia.com/family/divorce/dividing-money-and-property/property-division-laws-in-divorce-50-state-survey/, 2024. Accessed February 12, 2026.

Kleven, Henrik, Camille Landais, and Jakob Egholt Søgaard. Children and gender inequality: Evidence from Denmark. *American Economic Journal: Applied Economics*, 11(4):181–209, 2019.

Kovaleva, Mariia. Fertility and parental careers: How beliefs shape intra-household choices. Unpublished manuscript, London School of Economics, 2025.

Kursa, Miron B., and Witold R. Rudnicki. Feature selection with the Boruta package. *Journal of Statistical Software*, 36(11):1–13, 2010.

Lafortune, Jeanne, and Corinne Low. Collateralized marriage. *American Economic Journal: Applied Economics*, 15(4):252–291, 2023.

Lawrence, Erika, Kimberly Nylen, and Rebecca J. Cobb. Prenatal expectations and marital satisfaction over the transition to parenthood. *Journal of Family Psychology*, 21(2):155–164, 2007.

Lin, Ying-Ching, and Priya Raghubir. Gender differences in unrealistic optimism about marriage and divorce: Are men more optimistic and women more realistic? *Personality and Social Psychology Bulletin*, 31(2):198–207, 2005.

Low, Hamish, Costas Meghir, Luigi Pistaferri, and Alessandra Voena. Marriage, labor supply, and the dynamics of the social safety net. Working Paper 2025-27, Federal Reserve Bank of Chicago, 2025.

Lundborg, Petter, Erik Plug, and Astrid Würtz Rasmussen. Can women have children and a career? IV evidence from IVF treatments. *American Economic Review*, 107(6):1611–1637, 2017.

Mahar, Heather. *Why are there so few prenuptial agreements?* Harvard Law School, John M. Olin Center for Law, Economics, and Business, 2003.

Manski, Charles F. Measuring expectations. *Econometrica*, 72(5):1329–1376, 2004.

Mazzocco, Maurizio. Household intertemporal behaviour: A collective characterization and a test of commitment. *Review of Economic Studies*, 74(3):857–895, 2007.

Michelacci, Claudio, and Josep Pijoan-Mas. Intertemporal labour supply with search frictions. *Review of Economic Studies*, 79(3):899–931, 2012.

Mueller, Andreas I., and Johannes Spinnewijn. Expectations data, labor market, and job search. In Rüdiger Bachmann, Giorgio Topa, and Wilbert van der Klaauw, editors, *Handbook of Economic Expectations*, chapter 22, pages 677–713. Academic Press, 2023.

Mueller, Andreas I., Johannes Spinnewijn, and Giorgio Topa. Job seekers' perceptions and employment prospects: Heterogeneity, duration dependence, and bias. *American Economic Review*, 111(1):324–363, 2021.

OECD. *Pensions at a Glance 2013: OECD and G20 Indicators*. OECD Pensions at a Glance. OECD Publishing, Paris, 2013.

Perloff, Linda S., and Barbara K. Fetzer. Self-other judgments and perceived vulnerability to victimization. *Journal of Personality and Social Psychology*, 50(3):502–510, 1986.

Reynoso, Ana. The impact of divorce laws on the equilibrium in the marriage market. *Journal of Political Economy*, 132(12):4155–4204, 2024.

Rothman, Alexander J., William M. Klein, and Neil D. Weinstein. Absolute and relative biases in estimations of personal risk. *Journal of Applied Social Psychology*, 26(14):1213–1236, 1996.

Rozsypal, Filip, and Kathrin Schlafmann. Overpersistence bias in individual income expectations and its aggregate implications. *American Economic Journal: Macroeconomics*, 15(4):331–371, 2023.

Spinnewijn, Johannes. Unemployed but optimistic: Optimal insurance design with biased beliefs. *Journal of the European Economic Association*, 13(1):130–167, 2015.

Valle, Liza C. Custodial parents and their child support: 2022. Current Population Reports P60-285, U.S. Census Bureau, Washington, DC, 2025.

VanLaningham, Jody, David R. Johnson, and Paul Amato. Marital happiness, marital duration, and the U-shaped curve: Evidence from a five-wave panel study. *Social Forces*, 79(4):1313–1341, 2001.

Voena, Alessandra. Yours, mine, and ours: Do divorce laws affect the intertemporal behavior of married couples? *American Economic Review*, 105(8):2295–2332, 2015.

Weinstein, Neil D. Unrealistic optimism about future life events. *Journal of Personality and Social Psychology*, 39(5):806–820, 1980.

Weinstein, Neil D. Why it won't happen to me: Perceptions of risk factors and susceptibility. *Health Psychology*, 3(5):431–457, 1984.

Wesselink, Amelia K., Kenneth J. Rothman, Elizabeth E. Hatch, Ellen M. Mikkelsen, Henrik Toft Sørensen, and Lauren A. Wise. Age and fecundability in a North American preconception co-

hort study. *American Journal of Obstetrics and Gynecology*, 217(6):667.e1–667.e8, 2017.

Wiswall, Matthew, and Basit Zafar. Human capital investments and expectations about career and family. *Journal of Political Economy*, 129(5):1361–1424, 2021.

World Bank. Fertility rate, total for the United States [SPDYNTFRTINUSA]. Retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/SPDYNTFRTINUSA, 2026. Accessed September 28, 2026.

Xie, Anning. The dynamics of fertility, bargaining, and human capital accumulation. Working paper, University of Mannheim, 2026.

Zhou, Anson. The fertility, marriage, and gender equality quandary. Working paper, The University of Hong Kong, 2026.

Supplemental Appendix

Optimistic Divorce Beliefs and the Life-Cycle Economics of the Family

For online publication

S1 Survey Details

S1.1 Administrative and Sample Details on Survey

This appendix documents the implementation details of the two survey waves. Table S1.1 summarizes the main differences between them.

Table S1.1: Design of the Two Survey Waves

	Wave 1	Wave 2
Fielding period	November–December 2024	February–April 2025
Platform	Prolific	Prolific
Survey software	SurveyMonkey	LimeSurvey
Age range	20–65	18–45
Pre-screening	U.S.-based, in first marriage, living with spouse	
Response format	Slider (0–100, 1-unit steps)	Dropdown (0–100, 1-unit steps)
Comprehension aids	Probability explanation with examples	None
Confidence follow-ups	Yes	No
Framing assignment	Between subjects (random)	Within subjects (both framings)
Time horizons	5 years, 10 years, ever	1 year, 5 years, 10 years
Open-text question	Yes	No
Additional modules	Extended socio-demographics; intra-household specialization; work experience	Fertility intentions; home purchase plans; prenuptial agreements; marriage quality; information provision experiment
Completed responses	1,798	1,782

Notes: Both waves share a common core: the divorce-belief questions and socio-demographic characteristics of both spouses. Completed responses are counts before exclusions; the pooled final sample has 2,595 respondents. The full questionnaires are reproduced in Appendix S5.

Compensation. The survey was designed to take about 15 minutes. Participants received rewards of £2.10–3.02, corresponding to an hourly rate of £8.40–12.08.

Survey Software. We programmed the survey in SurveyMonkey (wave 1) and LimeSurvey (wave 2). Together, these platforms provided the features our design required, including slider-based answer visualization, question randomization, conditional answer formatting, and mandatory response settings.

Additional Survey Modules. Beyond the common core, wave 1 collects an extended set of socio-demographic characteristics, which we use to predict individual-level divorce probabilities via machine-learning methods, along with questions on intra-household specialization and work experience. Wave 2 focuses on forward-looking decisions. It elicits fertility intentions (whether to have a child and the planned age at first birth), plans to purchase a house, and the presence of prenuptial agreements. Wave 2 also elicits respondents' perceived marriage quality and runs an information provision experiment.

Elicitation of Divorce Beliefs. To help respondents understand and interpret probability questions, wave 1 incorporated several design features informed by the literature. The beliefs section opened with a detailed explanation of probabilities, accompanied by examples, following the Survey of Consumer Expectations (Bachmann et al. 2023). Response options were visualized with a slider ranging from 0 to 100 in 1-unit increments (Haaland et al. 2023). Each belief question was followed by a confidence question ("*How confident are you in your previous answer?*"), with five response options ranging from "*not confident at all*" to "*very confident*". Confidence questions serve two purposes: they encourage respondents to consider their answers carefully (Heimer et al. 2019), and they help interpret bunching around 50% by distinguishing genuine beliefs in equal chances from uncertainty or lack of knowledge (Bruine de Bruin et al. 2000).

Wave 2 streamlined this design. It elicited probabilities through a simple dropdown menu with 1-unit increments and omitted the explanation and the confidence follow-ups.

In both waves, beliefs were elicited over several time horizons, with the staying-married framing rephrased accordingly. To ensure monotonicity across horizons, we included a brief disclaimer explaining the logical ranking of probabilities between these questions.

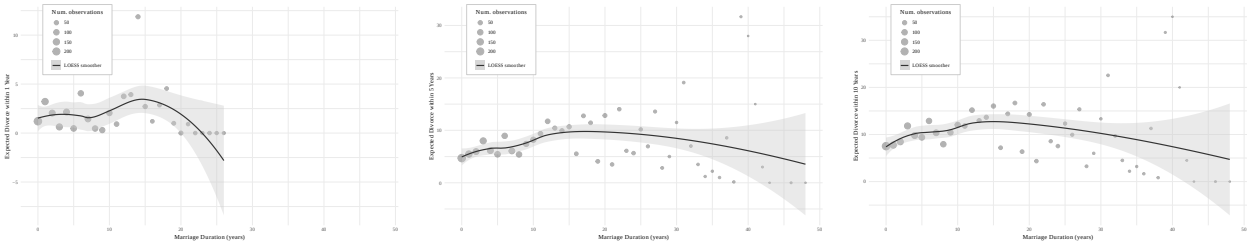
Table S1.2: Survey Descriptives: Survey vs. ACS 2024

	SD	Min	Max	Mean	ACS Mean
Women	0.50	0	1	0.56	0.51
Age	8.96	19	65	36	45
At least one child <5y in household	0.48	0	1	0.36	0.21
Share with college degree	0.46	0	1	0.70	0.55
Share White	0.46	0	1	0.70	0.65
Share Black/African American	0.34	0	1	0.14	0.07
Marriage duration	8.80	0	48	9	20
Share working for pay	0.36	0	1	0.85	0.89
Labor income	60,376	0	920,000	62,404	67,633

Notes: Survey sample versus the 2024 ACS, restricted to married individuals with spouse present, in a first marriage, aged 18–65. Labor income includes zeros.

S1.2 Expected Probability of Divorce by Marriage Duration

Figure S1.1: Expected Probability of Divorce by Marriage Duration.



(a) Within 1 year (b) Within 5 years (c) Within 10 years

Notes: Expected probability of divorce by marriage duration and horizon; stay-married answers are converted to 100 minus the stated probability. Points are weighted means, sized by the number of observations; lines are LOESS fits with 95% confidence bands. ACS weights; responses flagged at baseline excluded. Panels (b) and (c) pool both waves. The 1-year horizon (panel a) is asked only in wave 2, which oversamples young couples, so long durations are sparse.

S1.3 Beliefs and Choices

Table S1.3: Effect of Expected Probability of Staying Married (10y) on Further Household Choices and Intentions

	(1) Intent Buy House (0/1)	(2) Fert. Intention (0/1)	(3) House Value	(4) Prenup (0/1)	(5) Separate Account (0/1)	(6) Fem. Work Exp.	(7) Fem. Home Prod.
Exp. stay married (10y)	0.0027	0.0007	1,168.8***	−0.0010	−0.0015***	−0.013	0.042
	(0.0017)	(0.0018)	(385.6)	(0.0008)	(0.0005)	(0.012)	(0.055)
Observations	318 (wave 2)	258 (wave 2)	1,730 (wave 1)	808 (wave 2)	1,751 (wave 1)	1,746 (wave 1)	1,751 (wave 1)

Notes: OLS estimates of each dependent variable (column headers) on the respondent's expected probability (in percent) of staying married over the next 10 years. Heteroskedasticity-robust standard errors in parentheses. Controls comprise household labor income, a dummy for the respondent's sex, and fixed effects for cohort, state, marriage duration, own education, and spouse's education. All specifications except column 2 additionally include a dummy for a child under age 5 and indicators for the number of children in the household; these child controls are omitted in column 2, which is estimated on childless respondents. Column 1 is restricted to respondents who do not own their home. Coefficients on controls are suppressed. $^{*}\,p < 0.10$, $^{**}\,p < 0.05$, $^{***}\,p < 0.01$.

Table S1.4: Effect of Expected Probability of Staying Married (10y) on Household Choices and Intentions

	(1) |Δ Lab. Inc.|	(2) |Δ Hours|	(3) Female Employment (0/1)	(4) Age 1st Birth (intention)
Exp. stay married (10y)	99.6^{*}	0.040	-0.0015^{***}	-0.033^{***}
	(60.0)	(0.025)	(0.0005)	(0.011)
Child under 5: 1	$-2{,}243.7$	-0.42	-0.012	
	$(3{,}220.1)$	(1.3)	(0.023)	
No. children: 1	678.9	1.5	0.0065	
	$(3{,}502.2)$	(1.4)	(0.026)	
No. children: 2	$-4{,}624.0$	1.5	-0.018	
	$(5{,}464.9)$	(1.5)	(0.028)	
No. children: 3	$7{,}849.1$	3.6^{*}	-0.051	
	$(5{,}206.1)$	(2.0)	(0.037)	
No. children: 4+	$14{,}059.2^{**}$	12.2^{***}	-0.18^{***}	
	$(6{,}322.5)$	(2.9)	(0.053)	
HH lab. inc.	0.58^{***}	$-1.7 \times 10^{-5**}$	$5.2 \times 10^{-7**}$	7.0×10^{-7}
	(0.13)	(8.0×10^{-6})	(2.4×10^{-7})	(3.0×10^{-6})
Wave: 2	$-10{,}594.8^{***}$		0.32^{***}	
	$(2{,}447.0)$		(0.018)	
Marr. dur.: 1-3	$-2{,}047.9$	3.9^{*}	-0.042	-0.84
	$(4{,}219.5)$	(2.2)	(0.031)	(0.72)
Marr. dur.: 13-19	$2{,}250.3$	5.9^{**}	-0.056	1.3
	$(5{,}437.9)$	(2.7)	(0.038)	(2.3)
Marr. dur.: 20-29	$2{,}715.8$	5.4^{*}	-0.047	4.4^{***}
	$(6{,}754.2)$	(2.8)	(0.046)	(1.7)
Marr. dur.: 30+	$-6{,}172.4$	2.7	-0.075	
	$(10{,}415.0)$	(3.8)	(0.078)	
Marr. dur.: 4-7	$-2{,}374.5$	4.4^{*}	-0.037	0.46
	$(3{,}999.7)$	(2.3)	(0.030)	(0.76)
Marr. dur.: 8-12	$-1{,}225.6$	3.2	-0.034	2.8^{***}
	$(4{,}245.7)$	(2.5)	(0.033)	(0.98)
Female: 1	878.9	3.4^{***}	-0.059^{***}	-0.096
	$(2{,}463.2)$	(0.92)	(0.021)	(0.51)
Educ.: No College	$14{,}798.1^{***}$	3.8^{***}	-0.11^{***}	1.1^{*}
	$(5{,}020.0)$	(1.2)	(0.023)	(0.59)
Spouse educ.: No College	$15{,}450.9^{***}$	4.1^{***}	-0.079^{***}	-1.6^{***}
	$(4{,}842.7)$	(1.1)	(0.022)	(0.55)
Constant	$-19{,}197.3$	-1.7	0.78^{***}	40.9^{***}
	$(16{,}956.2)$	(6.6)	(0.13)	(2.0)
Observations	2,564 (waves 1 & 2)	1,749 (wave 1)	2,187 (waves 1 & 2)	196 (wave 2)

Notes: OLS estimates of each dependent variable (column headers) on the respondent's expected probability (in percent) of staying married over the next 10 years. Heteroskedasticity-robust standard errors in parentheses. Controls comprise household labor income, a dummy for the respondent's sex, and fixed effects for cohort, state, marriage duration, own education, and spouse's education; specifications using outcomes pooled across waves additionally include wave fixed effects (columns 1 and 3). Specifications estimated on respondents with children additionally include a dummy for a child under age 5 and indicators for the number of children in the household (columns 1–3); these child controls are omitted in the column estimated on childless respondents (column 4). State and cohort fixed effects are included but not reported. Blank cells: control not included in that specification. $^{*}\,p < 0.10$, $^{**}\,p < 0.05$, $^{***}\,p < 0.01$.

S1.4 Belief Revision After Information Provision

Table S1.5: Who revises their divorce expectations?

	Unchanged (67%)	Revised (33%)	Difference	p
Divorce probability before the information	6.1	17.1	+10.9***	0.000
Same probability for a similar couple	29.3	35.9	+6.6**	0.028
Gap: similar couple minus own	23.2	18.8	-4.4	0.125
Age	35.4	35.2	-0.1	0.886
Years married	7.3	7.8	+0.5	0.599
Household labour income	110,822.1	122,784.0	+11,961.9	0.293
College degree	33.4%	42.0%	+8.6	0.161
Female	0.0%	0.0%	+0.0	–
Has children	57.9%	67.7%	+9.8	0.121
Says afterwards they will never divorce	87.2%	59.1%	-28.0***	0.000

Notes: Wave 2 respondents who pass the baseline consistency filter; 10-year horizon. Revised: any change after the information screen (26% upward, 7% downward); unchanged: identical answer. Means are ACS-weighted; differences come from a weighted regression on a revision indicator, with robust standard errors. "Gap: similar couple minus own" uses the pre-information question about a couple with similar financial, economic, and relationship dynamics; positive values mean respondents rate their own marriage as safer. The last row is measured after the information screen. Descriptive correlations only. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

S1.5 Random Forest Algorithm - Predicting Individual Divorce Risk

To benchmark respondents' subjective divorce expectations against an objective measure of risk, we estimate a model of the probability that a marriage ends in divorce as a function of observable household characteristics. We train this model on a separate longitudinal dataset—the Panel Study of Income Dynamics (PSID), 1968–2019—and then apply the estimated function to our survey respondents to obtain each respondent's predicted divorce probability.

Sample and Outcome. The PSID training sample consists of couples in their first marriage, observed between ages 23 and 70, with the additional restriction that the household head was born before 1960. This restriction ensures that we observe each marriage for at least 60 years (until 2019), so that the marital outcome is effectively complete. The binary outcome equals one if the first marriage ended in divorce, annulment, or separation by 2019, and zero if the marriage remained intact or ended in widowhood.

Predictors. The candidate predictors include couple-level demographics (age and birth year of each spouse, race), human capital (education and a college-completion indicator for each spouse), labor-market characteristics (labor income, hours worked, employment status, and the within-couple income ratio and gap), household composition (marriage duration, number of children, an indicator for a child under age five, family size), wealth-related variables (net wealth, house

value, ownership status), the respondent's health status, geographic and background variables (state of residence, the household head's place of upbringing), and indicators for parental divorce of each spouse. We exclude wealth due to the substantial share of missing wealth observations in the PSID.

Model. We predict divorce with a random forest (Breiman 2001): a large collection of decision trees, each asking a sequence of yes/no questions about a couple and ending in a verdict, whose answers are averaged into a probability. Because the trees split the data wherever it helps, the method picks up nonlinearities and interactions among the predictors without our having to specify them in advance.

The pipeline has two stages. First, we choose which predictors to keep. The Boruta algorithm (Kursa and Rudnicki 2010) compares each variable against a randomly shuffled copy of itself and retains only those that consistently beat their own noise, so the selection is made by the data rather than by us.

Second, we fit the forest on the retained predictors. The estimation sample is a panel: each marriage contributes one observation per survey year in which it is observed, and the outcome—whether that marriage eventually ends in divorce—is a property of the marriage, common to all of its observations. Each tree considers only a random subset of variables at every split; we choose how many by dividing the training sample into five groups of marriages, training on four and checking the predictions on the fifth, rotating so each group serves once as the check. All years of a given marriage stay in the same group, so no marriage is used both to train and to check. The setting kept is the one whose predictions best separate observations that end in divorce from those that do not, measured by the area under the receiver operating characteristic curve (ROC).

To address the substantial class imbalance—divorce is the minority outcome—we apply SMOTE (Chawla et al. 2002) within each cross-validation fold, oversampling the divorce class only on the training portion so that performance metrics on the held-out fold remain unbiased. We use 501 trees and reserve 20% of the sample as a held-out test set to evaluate out-of-sample performance.

Application. We apply the trained model to our survey respondents, generating for each individual a predicted divorce probability based on their observable characteristics. We then compare this predicted probability to the respondent's stated subjective probability of divorce within ten years to assess the direction and magnitude of any systematic misperception.

Performance and Important Predictors. The Boruta algorithm retains all 23 candidate predictors: each systematically outperforms its own randomly permuted shadow, so the variable set is confirmed rather than trimmed. The tuned forest samples two variables at each split. On the held-out fifth of the sample—394 marriages, 81 of which end in divorce, none of them seen during selection or estimation—the forest attains an AUC of 0.83 (95% CI [0.79, 0.88]) when each marriage receives a single prediction, and 0.79 at the level of individual marriage-years, against 0.5

for a model with no predictive content. Predicted probabilities are strictly monotone in observed divorce rates across deciles, rising from 0.2% in the lowest decile to 26% in the highest. Because the training sample is rebalanced to offset the rarity of divorce, the raw probabilities are inflated in level; the logistic recalibration in sec:calibration restores the level while leaving the ordering, which is what the forest estimates well, untouched. The most important predictors are the two spouses' birth years, the husband's hours worked, the wife's age and the duration of the marriage, followed by the two spouses' earnings and the earnings split between them (tab:rf$_{t}op_{p}redictors$).

Discussion: Extrapolation from Past Cohorts. The benchmark is estimated on PSID marriages whose marital histories are complete, which confines the training sample to spouses born between 1904 and 1958, and is then applied to survey respondents born decades later. This matters more here than it would in a typical out-of-sample exercise, for two reasons. First, birth year is the single most important predictor in the forest, which is to say that cohort membership carries substantial independent information about divorce risk once characteristics are held fixed. Second, a random forest cannot extrapolate beyond the support of its training data: for a respondent born after 1958, every tree assigns the prediction of the latest cohort it has observed rather than projecting the cohort trend forward. Since divorce risk peaked for precisely those cohorts and has declined for those marrying since, the benchmark plausibly overstates the objective risk facing our respondents. However, part of the cohort decline is compositional and is absorbed by conditioning on education, earnings, hours, age at marriage and children, all of which have shifted. We therefore read the benchmark as the risk facing a couple with these characteristics under the divorce regime of the cohorts we can observe to completion, and treat the estimated degree of over-optimism as an upper bound.

S1.6 Beliefs and Choices Conditional on Predicted Divorce Risk

This appendix section tests whether the association between beliefs of staying married and household choices in Section 2.4 reflects differences in observable divorce risk (predicted changes of staying married). We re-estimate specification (1) for the outcomes available in wave 1, adding as a control the predicted probability of staying married from the random forest described in Appendix S1.5. We use wave 1 because only this wave elicits the probability of ever divorcing and the characteristics needed for the prediction. The belief measure is therefore the stated probability of always staying married rather than the ten-year probability used in Table 1.

Among respondents with the same predicted chance of staying married, a higher stated probability means a larger overestimation of that chance. The coefficient on beliefs therefore shows whether respondents who overestimate their chance of staying married by more make different household choices.

Table S1.6 reports, for each outcome, the estimate without the predicted chance of staying married in the first row and with it in the second. For the outcomes also shown in Table 1, the coefficients on the ever-staying married belief have the same signs as those on the ten-year belief, and the within-

couple difference in hours is now statistically significant as well. Adding the predicted probability changes the coefficients only slightly, and they remain significant. Beliefs, and in particular the overestimation of the chance of staying married, are therefore associated with household choices beyond the chance predicted from observable characteristics.

Table S1.6: Effect of Expected Probability of Staying Married for Life on Household Choices and Intentions Conditional on Predicted Divorce Probability

	(1) |Δ Lab. Inc.|	(2) |Δ Hours|	(3) Female Employment (0/1)	(4) Fem. Work Exp.	(5) Fem. Home Prod.
Exp. stay married (life)	162.8^{**}	0.047^{**}	-0.0019^{***}	-0.015	0.071
	(68.4)	(0.022)	(0.0005)	(0.011)	(0.049)
Controlling for div. prob.	145.5^{**}	0.043^{*}	-0.0018^{***}	-0.014	0.048
	(70.3)	(0.022)	(0.0005)	(0.011)	(0.050)
Observations	1,741	1,749	1,748	1,746	1,751
Obs. (w/ div. prob.)	1,625	1,625	1,625	1,622	1,625

	(6) House Value	(7) Net Wealth	(8) Separate Account (0/1)
Exp. stay married (life)	$1{,}204.0^{***}$	$2{,}461.0^{***}$	-0.0013^{***}
	(358.5)	(770.9)	(0.0004)
Controlling for div. prob.	$1{,}096.1^{***}$	$2{,}483.2^{***}$	-0.0012^{***}
	(355.7)	(760.9)	(0.0004)
Observations	1,730	1,660	1,751
Obs. (w/ div. prob.)	1,624	1,625	1,625

Notes: OLS estimates of each dependent variable (column headers) on the respondent's expected probability (in percent) of staying married for life, i.e. 100 minus the expected probability of ever divorcing. The first row of each panel reports the baseline estimate; the second row additionally controls for the objective (predicted) divorce probability. Heteroskedasticity-robust standard errors in parentheses. Controls comprise a dummy for a child under age 5, indicators for the number of children in the household, household labor income, a dummy for the respondent's sex, and fixed effects for cohort, state, marriage duration, own education, and spouse's education (identical across columns). Coefficients on controls are suppressed. First-row estimates use the full estimation sample for each outcome; second-row estimates are restricted to respondents with a non-missing predicted divorce probability. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

S1.7 Testable Assumptions

Table S1.7: Testable Assumptions

	(1) Female	(2) Breadwinner
Panel A: Continuous bias		
Exp. div. (ever) and	0.0002	−0.00004
controlling for div. prob.	(0.0005)	(0.0006)
Observations	1,625	1,625

Notes: Each cell is the coefficient on the regressor of interest from a separate OLS regression. Controls are as in Table 1. Standard errors in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table S1.8: Effect of Expected Divorce on Perceived Match Quality

	(1) Perceived Match Quality
Exp. div. (10y)	−0.042***
	(0.005)
Exp. div. (5y)	−0.046***
	(0.006)
Observations	824
	(wave 2)

Notes: OLS coefficients on the expected probability of divorcing within 10 or 5 years. The dependent variable is the wave 2 rating of the current marriage from 0 ("worst possible") to 10 ("best possible"). Controls as in Table 1, including child controls. Robust standard errors in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

S1.8 Open Text Question

We further ask respondents to consider a scenario in which their own risk of divorcing is much higher (or, in the alternative wording, their chance of staying married much lower) in an open-text question asking how this would change their behavior. Respondents are randomly assigned to one of two framings: an 80% chance of divorce at some point in the future, or a 20% chance of staying married. Both stems then ask how this knowledge would "influence your decisions about your current and future plans," offering savings, work hours, child caretaking and household chores as examples, and request at least one or two sentences. For the exact wording see the wave-1 questionnaire in the appendix.

Respondents engage seriously with the question. Of the 1,720 who answer, 95% write at least ten words and 69% at least twenty, with a median of 25 words; most give coherent, often multi-clause answers that name several concrete margins at once. One respondent facing the 80% framing writes: "I would separate current bank accounts and increase my work hours to save money for the increased costs of living on my own. I might also consider going back to school to get a better job that pays more in the future." Another: "I would keep separate checking and saving accounts. I'd make sure to designate a trusted family member as my beneficiary instead of my spouse. I would put instructions and protections in place so my husband wouldn't be legally allowed to take our children." A minority give short and uninformative answers "other areas in life", "I will plan towards", "Happy" but only 1.7% of responses are six words or shorter.

We classify responses with a multi-label keyword dictionary into twelve behavioural margins. A response can load on several margins at once, and 54% do. Table S1.9 reports the shares and Table S1.10 gives a verbatim example of each margin. 84% of respondents name at least one concrete margin. The single most common is precautionary saving (38%), followed by children and custody (27%), labour supply and career (20%), and the separation of finances, assets or legal arrangements (15%). Because the question names saving, work hours, childcare and chores, we place more weight on the margins respondents supply unaided: 60% name at least one such "volunteered" margin, including asset separation and legal steps (15%), planning for an independent household (16%), housing (12%), and avoiding joint or long-term commitments (5%). Adjustments generally point in the direction of self-insurance: 61% name a financial margin, and half of all respondents name a financial margin without mentioning any change in how much they invest in the marriage itself. Only 8% state that nothing at all would change, and just 4% do so without naming any margin.

Two features are worth noting. First, the two framings elicit very similar answers: no margin differs by more than seven percentage points between the 80%-divorce and 20%-stay-married wordings, which suggests respondents process the two as the same underlying scenario. Second, and more importantly, respondents have little difficulty naming sensible, economically coherent responses to a high divorce risk once that risk is handed to them. This is at least suggestive evidence that what respondents misperceive is the probability of divorce rather than its consequences.

We classify responses with a deterministic, multi-label keyword dictionary rather than a hand-coding exercise or a language model, so that the mapping from text to category is fully reproducible and open to inspection. The dictionary is given in full in "5_open_text_question.R". The procedure has four steps.

Pre-processing. Text is lower-cased and apostrophes and dashes are normalised. We then strip the respondent's restatement of the vignette. Respondents very often open by echoing the question ("If there were only a 20% chance of us staying married, then"), and that echo mechanically matches the dictionary for investing in the marriage under one wording but not the other. Left uncorrected it produces a spurious 15.6 percentage point framing difference on that margin; after

stripping, the difference is 3.6 points.

Substantive Margins. Each response is checked against twelve regular-expression dictionaries, one per margin. The assignment is multi-label: a response naming both saving and custody is counted in both, so shares do not sum to one. Dictionaries are anchored where a keyword is ambiguous the withdrawal margin, for instance, requires the reduction in time, effort or investment to attach to the spouse or the marriage, since "less time" and "invest" on their own equally describe cutting chores or moving money.

Residual Categories. "Other financial planning" is assigned to responses that mention money, bills, debt or affordability but name none of the three specific financial margins, so that one broad money category does not absorb the others. "Nothing would change" requires the negation to take a global object ("it would not change anything", "this would not influence my decisions"), so that a margin-specific negation "it wouldn't change my hours, but I would save more" is not read as a null response; explicit rejections of the premise are counted here too. The remaining responses are split into those that say decisions would change without naming a margin (1%) and those matching nothing (11%).

Validation. We draw 150 responses, deliberately oversampling the unclassified, and record alongside each the exact substring that triggered every dictionary hit, so that a misassignment can be traced to the responsible expression.

Table S1.9: Self-reported behavioural adjustment to a higher divorce risk

Margin	N	Share of responses (%)			
		All (1,720)	80% divorce (840)	20% married (880)	Diff.
Labour supply / career†	343	19.9	18.3	21.5	-3.1
Saving / precautionary saving†	648	37.7	41.2	34.3	+6.9
Other financial planning	241	14.0	13.5	14.5	-1.1
Separate finances / assets / legal	259	15.1	16.8	13.4	+3.4
Avoid joint or long-term commitments	79	4.6	3.8	5.3	-1.5
Housing / living arrangements	211	12.3	11.9	12.6	-0.7
Children / childcare / custody†	463	26.9	30.0	24.0	+6.0
Household chores / home production†	169	9.8	10.0	9.7	+0.3
Invest more in the marriage	290	16.9	15.0	18.6	-3.6
Withdraw from the marriage	113	6.6	6.0	7.2	-1.2
Plan for living independently	268	15.6	15.1	16.0	-0.9
Emotional / psychological reaction	64	3.7	3.5	4.0	-0.5
Nothing would change	139	8.1	7.4	8.8	-1.4
Would change, margin unspecified	18	1.0	1.2	0.9	+0.3
Unclassified	182	10.6	9.8	11.4	-1.6

Notes: Wave 1 respondents who answered the open-text question (1,720: 840 saw the 80% divorce wording, 880 the 20% stay-married wording). Responses are coded with a keyword dictionary; a response can name several margins, so shares do not sum to 100. Diff.: divorce-wording share minus stay-married-wording share. †Margins given as examples in the question, so their shares are prompted and not comparable with the others. The last three rows apply only to responses that name no substantive margin.

Table S1.10: Illustrative open-text responses, by behavioural margin

Margin	Wording	Verbatim response
Labour supply / career	80% divorce	"I am currently a stay at home mom. If I knew there was an 80% chance we would divorce, I would definitely get a job and start saving money."
Saving / precautionary saving	80% divorce	"I would save more of my own money"
Other financial planning	80% divorce	"Make financial decisions based on my own plans."
Separate finances / assets / legal	80% divorce	"I'd probably want a prenup in this situation."
Avoid joint or long-term commitments	20% married	"we'd not make big purchases like a house or car together."
Housing / living arrangements	80% divorce	"I would probably start considering the best housing options for a second household."
Children / childcare / custody	80% divorce	"i will try to win the custody of my child"
Household chores / home production	20% married	"It'd make me less likely to do chores. I wouldn't focus on our savings either."
Invest more in the marriage	20% married	"i would be more attentive and seek therapy"
Withdraw from the marriage	80% divorce	"I would feel less invested in our relationship, both financially and emotionally."
Plan for living independently	20% married	"I would keep more stuff personal, start preparing for my divorce"
Emotional / psychological reaction	80% divorce	"It would make me sad, and I wouldn't want to know this information."
Nothing would change	80% divorce	"Absolutely nothing would change. It is against our belief to divorce."
Would change, margin unspecified	20% married	"Considerably. It would impact my future plans and decisions."

Notes: Verbatim wave 1 responses, with original spelling and punctuation. "Wording" is the framing the respondent saw. Each response is listed under one margin, although most name several.

S2 Literature Review on Optimistic Divorce Beliefs

There exists a well-established literature in psychology that investigates the phenomenon of unrealistic optimism regarding future life events (e.g., Weinstein 1980; Weinstein 1984; Rothman et al. 1996). This research establishes that individuals frequently underestimate (overestimate) the likelihood of unfavorable (favorable) events. When it refers to expectations concerning negative future life events, such as divorce, participants tend to perceive themselves as less susceptible than the average member of a given group. This tendency is commonly referred to as the "Illusion of Unique Invulnerability" (Perloff and Fetzer 1986).

Building on this general notion, survey evidence suggests a widespread tendency within the population to have strikingly optimistic expectations about the probability of divorce. Weinstein (1980) surveyed college students in the U.S., revealing that participants consistently underestimated their likelihood of experiencing divorce. The mean comparative judgment of their chances of divorce, compared to the group's average, was strikingly lower, with an average underestimation of about 50%. This substantial deviation regarding divorce expectations is particularly noteworthy as it ranked among the top three most underestimated events within a list of 24 surveyed adverse life events.

Baker and Emery (1993) elicited the estimated average divorce rates in the U.S. and the personal expectations of divorce likelihood within a cohort of young individuals seeking their first marriage licenses in Virginia. Their findings reveal a striking disparity in participants' outlook toward their own prospects compared to their perceptions of others' chances of divorce. Notably, the median estimate for the average American couple's likelihood of divorce was 50%, in stark contrast to the participants' median self-assessment, indicating zero chance of experiencing divorce themselves.

Mahar (2003) describes a notable scarcity of prenuptial agreements in the U.S. and shows that this finding can be attributed to people's persistent optimism regarding the stability of their marriages. In a survey conducted among law students, the author observed that participants were well aware of the national divorce rates – around 50% at that time – yet they still placed their own likelihood of divorce at 11.7%. Hence, prenuptial contracts are not (widely) used as a tool to make differential human capital accumulation resulting from specialization decisions within the couple contractible.

Finally, Campbell et al. (2012) surveyed recently married, childless women in the U.S. in 2011. Their findings confirm previous research results: participants, on average, estimated a mere 13.2% probability of divorce over their lives. Further, they find that currently employed women have significantly higher divorce expectations compared to non-employed women, resulting in a difference of 7.7 percentage points. Their regression, which yields the previous result, controls for additional factors that might impact divorce expectations. Hence, even though it is not causally identified, this observation hints at the influence of divorce expectations on women's labor market decisions.

The presence of optimistic divorce expectations is also echoed in studies by Fowers et al. (2001), Boyer-Pennington et al. (2001), Lin and Raghubir (2005) and Helweg-Larsen et al. (2011).[33]

S3 Model Details

S3.1 Aging and Departure of Children

The youngest child's age category $\text{age}_t^y \in \{1, 2, 3\}$ follows a Markov chain. If category k spans N_k years, the annual exit hazard from category k is $1/N_k$. At the model frequency of *freq* years per period, the per-period advance probability is

$$q_k \;=\; 1 - \big(1 - 1/N_k\big)^{freq}, \tag{S1}$$

obtained by geometric compounding of the annual hazard. The youngest child remains in category k with probability $1 - q_k$ each period.[34]

In households with $n_t > 1$, with probability p_{older} per period one older sibling departs, reducing n_t by one while leaving age_t^y unchanged. The annual departure hazard is set to $1/3$ (an expected sibling spacing of three years), and is compounded to the model period in the same way as the youngest-child hazard:

$$p_{\text{older}} \;=\; 1 - \big(1 - 1/3\big)^{freq}.$$

This single binary departure event is applied uniformly across households with $n_t > 1$ regardless of how many older siblings are present. Since the solver tracks only the youngest child's age category, the departure of older siblings cannot be determined from the state, and p_{older} approximates this unobserved process. While birth spacing is endogenous in the model, the household's flow utility and budget constraint depend primarily on the number and developmental stage of the youngest child, so this approximation has a modest quantitative impact.

The two processes are independent, so in any given period both the youngest child's age category and the number of older siblings may update simultaneously. When the youngest child exits the final age category (i.e. $\text{age}_t^y = 3$ and the advance event occurs with probability q_3), all remaining children leave the household simultaneously, resetting the state to $(n_{t+1},\, \text{age}_{t+1}^y) = (0,\, 1)$, regardless of whether an older sibling would otherwise have departed that period. A new birth $b_{t+1} = 1$ resets the youngest child's age to category 1 and increments the child count to $\min(n_t + 1,\, \bar{n})$. The conception event and the older-sibling departure event are handled as disjoint branches in the value function: conditional on $b_{t+1} = 1$, no older-sibling departure is drawn that period, an ap-

[33] Boyer-Pennington et al. (2001) find that even though experiencing parental divorce decreases optimism about personal marital stability, it still remains substantial. Lin and Raghubir (2005) show that couples in Taiwan are also optimistic about their divorce likelihood, with Taiwanese men being more optimistic than women, a finding confirmed by Helweg-Larsen et al. (2011) for unmarried college students in the U.S. In contrast, Fowers et al. (2001) do not find gender differences. We currently abstract from gender differences or within-couple differences in expectations.

[34] In our calibration $N_1 = 4$, $N_2 = 3$ and $N_3 = 3$. At the annual frequency used in the baseline ($freq = 1$) the compounding is inert and the per-period advance probabilities are $q_1 = 0.25$ and $q_2 = q_3 \approx 0.33$.

proximation whose quantitative impact is negligible because the conception probability is small at the ages where $n_t > 1$.

Let $q_t \equiv q_{\text{age}_t^y}$ denote the advance probability of the youngest child's current category, and define

$$\bar{p}_{\text{older}} = \begin{cases} p_{\text{older}} & \text{if } n_t > 1, \\ 0 & \text{otherwise.} \end{cases}$$

Then the law of motion for $(n_{t+1}, \text{age}_{t+1}^y)$ is

$$(n_{t+1},\, \text{age}_{t+1}^y) = \begin{cases} (\min(n_t+1,\, \bar{n}),\; 1) & \text{if } b_{t+1} = 1, \\ (n_t,\; \text{age}_t^y) & \text{if } b_{t+1} = 0,\; n_t \geq 1,\; \text{age}_t^y \in \{1,2\},\; \text{w.p. } (1-q_t)(1-\bar{p}_{\text{older}}), \\ (n_t,\; \text{age}_t^y + 1) & \text{if } b_{t+1} = 0,\; n_t \geq 1,\; \text{age}_t^y \in \{1,2\},\; \text{w.p. } q_t(1-\bar{p}_{\text{older}}), \\ (n_t - 1,\; \text{age}_t^y) & \text{if } b_{t+1} = 0,\; n_t \geq 1,\; \text{age}_t^y \in \{1,2\},\; \text{w.p. } (1-q_t)\,\bar{p}_{\text{older}}, \\ (n_t - 1,\; \text{age}_t^y + 1) & \text{if } b_{t+1} = 0,\; n_t \geq 1,\; \text{age}_t^y \in \{1,2\},\; \text{w.p. } q_t\,\bar{p}_{\text{older}}, \\ (n_t,\; \text{age}_t^y) & \text{if } b_{t+1} = 0,\; n_t \geq 1,\; \text{age}_t^y = 3,\; \text{w.p. } (1-q_3)(1-\bar{p}_{\text{older}}), \\ (n_t - 1,\; \text{age}_t^y) & \text{if } b_{t+1} = 0,\; n_t \geq 1,\; \text{age}_t^y = 3,\; \text{w.p. } (1-q_3)\,\bar{p}_{\text{older}}, \\ (0,\; 1) & \text{if } b_{t+1} = 0,\; n_t \geq 1,\; \text{age}_t^y = 3,\; \text{w.p. } q_3, \\ (0,\; 1) & \text{if } b_{t+1} = 0,\; n_t = 0. \end{cases} \tag{S2}$$

S3.2 Dynamic Optimization Problem of Retirees

Individuals retire stochastically from age $\underline{R}$ onward, facing a constant per-period hazard p_{retire}, with age R acting as a hard cap. Retirement is absorbing, joint within marriage and individual for divorced individuals; we denote retirement status by $\mathcal{R}_t \in \{0, 1\}$. Upon retirement, individuals no longer supply market labor and instead receive pension income

$$y_{g,t}^R = \kappa_g\, w_{g,t}\, \bar{h}_g, \tag{S3}$$

where κ_g is a gender-specific replacement rate, $\bar{h}_g$ denotes average gender-specific market hours, and $w_{g,t} = \exp(\alpha_{0,K} + \alpha_{1,K} K_{g,t})$ is the wage implied by current human capital. Human capital ceases to evolve from age $R-1$ onward; individuals who retire earlier supply no market hours and therefore accumulate no further human capital, but remain subject to depreciation until $R-1$.

Because the conception probability tapers to approximately zero well before $\underline{R}$, and because children age out of the household stochastically, $n_t = 0$ for $t \geq R$ with high probability; the child state is nonetheless carried, and households with resident children at retirement continue to face the transitions in Appendix S3.1. Match quality θ_t continues to evolve according to Equation (10), and the surplus-based divorce rule applies each period, so divorce remains feasible in retirement whenever $S_t < 0$. Because θ_t keeps evolving, belief types continue to shape expected continuation

values and hence the divorce decision.

Joint Budget Constraint for Married Retirees. Married retirees face the joint budget constraint

$$\begin{aligned} A_{t+1} + \left(c_{m,t}^{\rho} + c_{f,t}^{\rho}\right)^{\frac{1}{\rho}} = (1+r)A_t + y_{m,t}^R + y_{f,t}^R \\ - \tau^{\mathrm{mar,R}}\left(y_{m,t}^R + y_{f,t}^R,\, rA_t,\, n_t\right). \end{aligned} \tag{S4}$$

Household income consists of pension income and asset returns.

Individual Budget Constraint for Divorced Retirees. Divorced retirees face the individual budget constraint

$$A_{t+1} + c_{g,t} = (1+r)A_t + y_{g,t}^R - \tau^{\mathrm{div,R}}\left(y_{g,t}^R,\, rA_t,\, n_t\right). \tag{S5}$$

For both married and divorced retirees, the EITC is zero and means-tested welfare transfers cease. Capital taxes and the progressive labor tax on pension income continue to apply, with n_t reflecting the stochastic child state.

State Vector of Retired Married Couples. The state of a retired married couple is

$$\Omega_t^{\mathrm{mar},R} = \left(\left(K_{g,R-1}\right)_{g\in\{f,m\}},\, \chi,\, A_t,\, \theta_t,\, n_t,\, age_t^y\right). \tag{S6}$$

It consists of both spouses' human capital levels, invariant from $R-1$ onward, the couple's belief type χ, jointly accumulated assets A_t, the realized match quality θ_t, and the child states (n_t, age_t^y).

Choice Vector of Retired Married Couples. Given the state, married retirees jointly choose

$$X_t^{\mathrm{mar},R} = \left\{ x_t = \left((c_{g,t}, q_{g,t})_{g\in\{f,m\}},\, A_{t+1}\right) \;\middle|\; c_{g,t}\geq 0,\; q_{g,t}\geq 0,\; A_{t+1}\geq 0,\; A_{T+1}=0 \right\}. \tag{S7}$$

Retired couples choose individual consumption and home-production time for both spouses and joint savings. Market hours are fixed at zero, so leisure is the residual of the time endowment net of home production, and conception is shut down by construction. Borrowing is ruled out and households cannot save in the terminal period. Whether the marriage continues is determined by the surplus rule, exactly as in the working stage, and is not itself a choice.

Dynamic Optimization Problem of Retired Married Couples. The allocation solves

$$x_t^* = \arg\max_{x_t\in X_t^{\mathrm{mar},R}} \left\{ \mu_f\, \widetilde{V}_{f,t} + (1-\mu_f)\, \widetilde{V}_{m,t} \right\}, \qquad \widetilde{V}_{g,t} = u_g(\cdot) + \theta_t + \beta\, \mathbb{E}_t^{\chi}[V_{g,t+1}], \tag{S8}$$

subject to the individual time constraints (5), the joint budget constraint (S4), the home production technology (8) and the choice set (S7). The surplus S_t and the division of $V_{g,t}$ follow Equations (24) and (26) unchanged. Uncertainty in retirement arises from the evolution of match quality, from the stochastic phase-out of any remaining children, and, in the event of divorce, from the assignment of child custody. Human capital is deterministic.

State and Choices of Retired Divorcees. Divorced retirees of gender g face the state $\Omega_{g,t}^{\text{div},R} = \left(K_{g,R-1},\, A_t,\, n_t,\, age_t^y\right)$ and choose

$$X_t^{\text{div},R} = \left\{ x_t^{\text{div}} = \left(c_{g,t},\, q_{g,t},\, A_{t+1}\right) \;\middle|\; c_{g,t} \geq 0,\; q_{g,t} \geq 0,\; A_{t+1} \geq 0,\; A_{T+1} = 0 \right\}. \tag{S9}$$

Market hours are zero and divorced retirees cannot conceive.

Dynamic Optimization Problem of Retired Divorcees. In each retired period, divorced individuals solve

$$\begin{aligned} V_{g,t}^{\text{div},R}\left(\Omega_{g,t}^{\text{div},R}\right) = \max_{x_t^{\text{div}} \in X_t^{\text{div},R}} & \left\{ u_g(c_{g,t}, \ell_{g,t}, n_t, age_t^y, Q_t) + \beta\, \mathbb{E}_t\left[V_{g,t+1}^{\text{div},R}\right] \right\} \\ & \text{s.t. individual time constraint (5), budget constraint (S5),} \\ & \quad \text{home production technology (9) and choice set (S9).} \end{aligned} \tag{S10}$$

The expectation is taken over the child-state transitions of Appendix S3.1.

S3.3 Nash Bargaining

This appendix derives the Nash bargaining solution that governs intra-household allocations and the divorce decision described in Section 3.8. Let $V_{g,t}^{div}$ denote the value of divorce for spouse g and let $\widetilde{V}_{g,t}$ denote the value of marriage under the efficient allocation before any transfer, as defined in Equation (23). The post-transfer value of marriage is

$$V_{g,t}^{mar}(\Omega_t^{mar}) = \widetilde{V}_{g,t} + \tau_g,$$

where τ_g is an intra-household utility transfer, positive or negative, and transfers are zero-sum, $\tau_f = -\tau_m$. We assume utility is transferable within the marriage.[35]

The marital surplus is

$$S_t(\Omega_t^{mar}) = \max_{x_t} \left[\widetilde{V}_{m,t} + \widetilde{V}_{f,t} - V_{m,t}^{div}(\Omega_{m,t}^{div}) - V_{f,t}^{div}(\Omega_{f,t}^{div}) \right],$$

where couples choose x_t to maximize the joint surplus, taking outside options as given. Marriage is sustained whenever $S_t(\Omega_t^{mar}) \geq 0$, in which case transfers can always be set such that each spouse individually benefits from remaining married relative to divorcing.

Transfers are determined by Nash bargaining. Given an exogenous bargaining weight $\mu_f \in (0,1)$ for the wife, the surplus shares are

$$S_{f,t}^{mar} = \mu_f\, S_t(\Omega_t^{mar}), \qquad S_{m,t}^{mar} = (1-\mu_f)\, S_t(\Omega_t^{mar}),$$

[35] The transfer is applied directly to values rather than implemented through a reallocation of consumption. Because $\tau_f + \tau_m = 0$, the division conserves the total value of the marriage, so the joint problem is unaffected and only the split of the surplus depends on μ_f.

which solve the Nash problem

$$\max_{\tau_f,\,\tau_m} \quad \left(V_{m,t}^{mar} - V_{m,t}^{div}\right)^{1-\mu_f} \left(V_{f,t}^{mar} - V_{f,t}^{div}\right)^{\mu_f} \quad \text{s.t.} \quad \tau_f + \tau_m = 0.$$

We set $\mu_f = 1/2$ throughout, so that the joint surplus is maximized by the symmetric allocation and the surplus is divided equally.[36] A key implication of this formulation is that transfers adjust continuously in response to changes in either spouse's outside option, regardless of whether participation constraints bind.

Computational Implementation

1. **Joint surplus maximization.** Conditional on marriage, couples choose x_t to maximize $\widetilde{V}_{f,t} + \widetilde{V}_{m,t}$, treating outside options as given. Consumption is divided according to the closed-form sharing rule implied by μ_f and the consumption aggregator.

2. **Divorce decision.** If $S_t(\Omega_t^{mar}) < 0$, the couple divorces and each spouse receives $V_{g,t}^{div}$. Otherwise the marriage continues.

3. **Individual marriage values.** Conditional on continuation, each spouse's value is their outside option plus their surplus share:

$$V_{m,t}^{mar}(\Omega_t^{mar}) = (1-\mu_f)\, S_t(\Omega_t^{mar}) + V_{m,t}^{div}(\Omega_{m,t}^{div}),$$
$$V_{f,t}^{mar}(\Omega_t^{mar}) = \mu_f\, S_t(\Omega_t^{mar}) + V_{f,t}^{div}(\Omega_{f,t}^{div}).$$

4. **Recursion.** These post-division values, and not $\widetilde{V}_{g,t}$, are the continuation values entering the previous period's problem.

Note: The divorce value $V_{g,t}^{div}$ is evaluated at each spouse's share of the divided assets and is subject to stochastic child custody assignment.

S4 Details on Model Quantification

S4.1 Computational Approach

Model Solution. We solve the model by backward induction over the life cycle. The solution proceeds in two stages: we first solve the divorced-individual problem separately by gender, then solve the married-couple problem using the resulting divorcee value functions as outside options.

[36] The symmetry matters for internal consistency: the numerical implementation maximizes the weighted objective $\mu_f \widetilde{V}_f + (1-\mu_f)\widetilde{V}_m$, which is proportional to the joint surplus $\widetilde{V}_f + \widetilde{V}_m$ only at $\mu_f = 1/2$. At any other weight, maximizing the weighted objective would not deliver the surplus-maximizing allocation that transferable-utility bargaining presumes, and the divorce rule implied by the weighted comparison, $\mu_f S_{f,t} + (1-\mu_f) S_{m,t} < 0$, would differ from the surplus rule $S_t < 0$.

The divorced individual's state space has five dimensions: age, own human capital, own assets, the number of children in custody, and the age of the youngest child in custody. The solution yields value and policy functions for savings, consumption, market hours, and home production. After divorce, parents cannot have additional children in the model, and the number in their custody may decline as children age out of the household.

The couple's state space has nine dimensions: age, each spouse's human capital, joint assets, the number of children and age of the youngest child, match quality, belief type, and the bargaining weight. Within each period, static first-order conditions determine home-production hours. Dynamic choices include savings, market hours, childbearing, and divorce; when participation constraints bind, the couple may also renegotiate the bargaining weight.

Numerical Approximation. The human-capital grid has 15 equally spaced levels, and weekly market hours are chosen from $\{0, 25, 45\}$.[37] Human-capital transitions are represented by finite Markov transition probabilities over adjacent skill levels. At each age, match quality is represented by a 10-point quantile grid of its normal distribution, truncated at three standard deviations and centered on the age-specific trend. Transition probabilities are computed by integrating each belief types perceived normal distribution over bins around the next-period grid points. Expected continuation values are evaluated as probability-weighted sums over these discrete transitions. When joint assets are divided at divorce, the divorcee value and policy functions are evaluated at each spouse's asset share by linear interpolation over the asset grid.

Estimation. For each trial parameter vector, we solve the model and simulate 50,000 households. We draw each household's belief type and initial education, as well as its sequence of match-quality and human-capital shocks, and compute life-cycle moments from the simulated panel using the same definitions as in the data. The simulation resets the random-number generator to a fixed seed at each evaluation, holding the simulation draws constant across parameter vectors. The estimation criterion is the weighted sum of absolute relative deviations between each targeted model moment m_k and its data counterpart $\bar{m}_k$:

$$\sum_k w_k \frac{|m_k - \bar{m}_k|}{|\bar{m}_k|}.$$

Weights equal. We minimize this objective over the parameters in Table 5 using the bounded Nelder–Mead algorithm implemented in NLopt. The initial values and parameter bounds are read from the calibration file; the routine uses a relative parameter tolerance of 10^{-4} and a maximum of 25,000 objective evaluations.

[37] We also estimated the model with a five-point hours grid, $\{0, 25, 35, 45, 50\}$. The fit to the targeted moments did not improve noticeably, so we use the three-point grid for computational tractability.

S4.2 Data Sources

Panel Study of Income Dynamics (PSID). We use the Panel Study of Income Dynamics (PSID) to construct the initial distribution of education and wealth, the divorce and fertility moments.

We use the 1999–2019 waves, which are biennial, and restrict the sample to heads and spouses in their first marriage, matching each to their partner within the household. This leaves 95,429 person-wave observations on 14,734 individuals. To reconstruct marital and fertility histories that begin before 1999, we draw on all waves since 1968. All dollar amounts are in 2016 dollars.

From the marriage histories we record the start and end of each individual's first marriage, how it ended (divorce, separation or widowhood), and whether the individual remarried. The birth histories record the birth years of up to four children, so fertility timing is exact for families of up to four children. Household income is the previous year's gross labor income of both spouses, including the labor share of self-employment and farm income.

We compute the cumulative probability of divorce by marriage duration from ever-married individuals in their first marriage, with one observation per person. The event is a confirmed divorce, i.e. separations that are not followed by a recorded divorce are not counted, and widowhood is treated as censoring. We follow individuals by marriage duration in years until divorce or the last observed year 12,496 are at risk in the first year of marriage, and we observe 2,805 divorces over durations of up to 30 years and accumulate the resulting hazard, corrected for marriage-cohort trends, by the Kaplan–Meier method.

We measure the mother's age at first birth as the child's birth year minus her own. Because only married couples have children in the model, we restrict the sample to births within marriage, which leaves 2,337 women. For completed fertility, we target the U.S. total fertility rate in 2020, 1.64 births per woman (World Bank 2026).

American Time Use Survey. We use the American Time Use Survey (ATUS), linked to the Current Population Survey, to construct life-cycle profiles of market hours, home-production hours and hourly wages, and average weekly hours for the pension replacement calculation.

We pool the 2013–2018 waves and restrict the sample to respondents aged 21–65 who are not enrolled in school, leaving 44,361 respondents, of whom 24,023 are women. ATUS identifies only whether a spouse or unmarried partner is present in the household; we classify a respondent as married if a spouse is present (24,265 respondents) and single if neither a spouse nor a partner is present (18,003), so the single group mixes the never-married, divorced and widowed and is only an imperfect counterpart to the model's divorcees. All statistics use the ATUS sampling weights.

Market hours are usual weekly hours across all jobs, set to zero for respondents who are not employed. Home production follows (Aguiar et al. 2013) and sums child care, core housework, home maintenance, shopping and errands, and care for other adults, converted from daily minutes to weekly hours. The hourly wage is usual weekly earnings divided by usual weekly hours among

the 29,903 respondents with positive earnings, trimmed at the first and 99th percentiles and deflated to 2018 dollars.

Age, cohort and year effects cannot be separately identified in repeated cross-sections, so we follow Deaton and Paxson (1997) and regress each outcome on a full set of single-year age dummies, birth-cohort dummies and year dummies purged of a linear trend, shifting the age profile to levels using the mean of the youngest age group. Because single-year cells are thin, the profiles used in estimation (market hours, home-production hours and hourly wages, pooled across marital status) instead fit a polynomial in age with the same cohort and year controls.

The average weekly hours entering the pension replacement calculation (Table 4) are the weighted mean of usual weekly hours by sex, pooling married and single respondents: 26.2 hours for women and 35.3 hours for men.

S4.3 Institutional Divorce Setting

Asset Division upon Divorce. The model divides joint assets equally between spouses at divorce and does not levy the proportional tax on the divorced-out balance that the code allows for. Both are simplifications relative to U.S. divorce law: only three states (California, Louisiana and New Mexico) mandate an equal split as community property; the remaining forty-seven states and the District of Columbia instead apply equitable distribution, under which courts weigh each spouse's earnings capacity, labor-force attachment and contribution to the household and, in practice, typically award the higher earner one-half to two-thirds of marital assets rather than one-half (Hersch and Shinall 2020).[38]

Custody. We set the probability that the mother receives custody to $\Pr(S_f) = 0.78$, the share of custodial parents who are mothers in the 2022 Current Population Survey Child Support Supplement (Valle 2025).

Child Support and Alimony. The model does not include child support or alimony payments between divorced spouses. Among custodial parents due support in 2017, about half (49.4%) had a legal or informal agreement in place, and average payments among those owed support were $3,431 a year, or 8.8% of the recipient's income (Grall 2020).

S4.4 Estimation of Joint Initial Human Capital and Joint Assets.

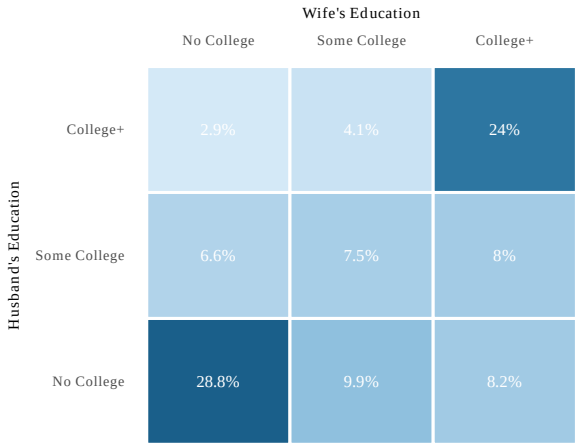
We estimate the joint distribution of spouses' education (Figure S4.1a) from first-married couples in which both spouses are aged 20–30 and not enrolled in school, using survey weights. The sample comprises 4,888 individuals.

We estimate household net wealth at marriage (Figure S4.1b) using a narrower sample of couples in which both spouses are aged 21–23, corresponding to the age span of the model's first

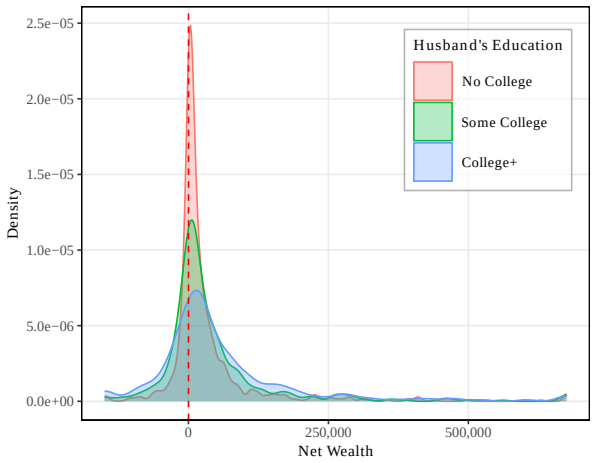
[38] An equal split is also the norm the parties bargain toward under equitable distribution, so it is not purely a community-property assumption.

Figure S4.1: Initial Conditions at Marriage: Education and Net Wealth

(a) Joint Initial Education Distribution



(b) Initial Joint Net Wealth



Notes: Panel (a): joint distribution of educational attainment of first-married individuals aged 20–30 not enrolled in school. Panel (b): household net wealth at marriage by husband's education, same sample. Survey-weighted PSID data, 1999–2019.

period. We use this narrower window because extending it to ages 20–30 includes couples several years further into marriage and roughly doubles measured wealth at this age. Because the PSID records net wealth only in its wealth supplements (2009–2019), the sample of newly married couples is small, at 161 couples. It is also unevenly split by the husband's education: 29 couples have a college-educated husband, 43 have a husband with some college education, and 87 have a husband with no college education. Across all three groups, net wealth is concentrated around zero, and a substantial minority of couples, 22% overall, start married life in debt. The share is highest among college-educated couples, at 28%, which plausibly reflects student debt. Given this pattern, and given the small sample, we set initial assets to zero for all households.

S4.5 Non-Targeted Moments

A natural check on the estimated model is whether it reproduces features of the data that were not used in estimation. Figure S4.2 and Table S4.1 report such moments, none of which entered the objective function.

Gender Gaps in Time Use. We begin with the division of labor within marriage. Panel A of Figure S4.2 pools the gender gap in hours within married couples over the life cycle.[39] Husbands in the model spend 13.98 more hours per week in market work than their wives, against 17.1 in the data, while wives spend 19.1 more hours in home production, against 21.7. Even though the

[39] In the calibration routine we target life-cycle hours, pooled across marital status.

split of hours by gender within marriage is not targeted, the model thus generates most of the specialization observed in the data.

Gender Gaps in Wages and Earnings. This specialization carries over to pay. Panel B reports the corresponding gaps in log points. The model matches the wage gap closely (16.62 against 14.2) but understates the earnings gap (25.94 against 41.5, explaining 63% of it).[40]

Home Production by Number of Children. Panel C shows average weekly home-production hours by number of children. Only the gradient in the age of the youngest child enters the objective, yet the model reproduces the rise in home production with the first child, from 21.9 to 28.5 hours, against 18.1 to 26.1 in the data, with a level that is slightly too high at both parities.

The Distribution of Market Hours. Panel D compares the shares of individuals at each point of the hours grid, none of which is targeted. The model matches the share working full time (0.62 against 0.64) but places too many individuals in part-time work (0.16 against 0.09) and too few out of work (0.22 against 0.27).

The Child Penalty. Panel A of Table S4.1 compares the earnings penalty women incur after a first birth. Averaged over the six years following birth, the model generates a penalty of *31.8*%, close to the *34.1*% observed in the PSID, even though no event-study moment was targeted.

Beliefs and Choices. Finally, we ask whether the model captures how divorce expectations relate to labor supply. Panel B of Table S4.1 reports the expected ten-year probability of divorce by employment status. The model reproduces both the level of expectations and their ordering: as in our survey, full-time workers expect divorce more often then by those not employed, and expected divorce rises with hours worked, with a correlation of 0.044 against 0.090 in the data.

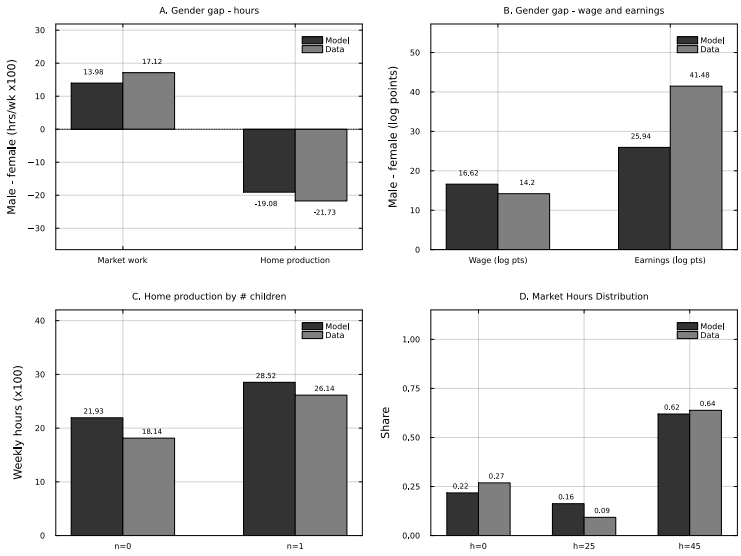
Table S4.1: Child Penalty and Divorce Expectations by Employment: Data vs. Model

	Data	Model
A. Child penalty (%)		
Average, $\tau = 0$–5	34.1	31.8
B. Divorce expectations by employment status (pp)		
Full-time	14.46	12.85
Not employed	10.26	12.64
Correlation, hours vs. expectation	0.090	0.044

Notes: Panel A: average percentage shortfall in women's earnings over the six years after a first birth ($\tau = 0$–5); data from the PSID. Panel B: mean expected probability of divorce within 10 years by employment status, and its correlation with weekly hours worked; data from our survey, model from simulated data. Neither panel is targeted in the estimation.

[40] The data gaps are computed from ATUS respondents of all marital statuses, with earnings constructed as wages times hours; the model gaps are for married couples in which both spouses have positive earnings.

Figure S4.2: Untargeted Moments



Notes: Model versus ATUS data (2003–2019), ages 21–65; none of these moments is targeted in the estimation. Panel A: male minus female weekly hours of market work and home production, married couples. Panel B: male minus female log wages and log earnings. Panel C: weekly home-production hours by number of children. Panel D: distribution of weekly market hours.

S5 Survey Questionnaires

This appendix reproduces the full questionnaires of both survey waves, exported from the survey platform. Both were administered via Prolific to U.S.-based respondents in their first marriage and living with their spouse (see Section S1. The two questionnaires follow on the next pages, in this order.

Wave 1 (November–December 2024). The first questionnaire opens with screening questions on marital status, marital history, and pending divorce proceedings. It then elicits divorce beliefs for a comparable couple and for the respondent's own marriage over 5-year, 10-year, and lifetime horizons. Each belief question is followed by a confidence rating and preceded by comprehension aids. Respondents are randomly assigned to either a *divorce* or a *staying-married* framing, and both versions appear in the export. An open-text question asks how respondents would adjust their plans under a high divorce risk. The remaining blocks collect demographics, marriage duration and parental divorce, labor market status, income and detailed occupation for both spouses, household composition, children, time use, education, and assets. Attention checks are embedded throughout.

Wave 2 (February–April 2025). The second questionnaire is organized in Sections A–H. Section A covers fertility, work adjustments around childbirth, fertility intentions, and time use. Section B elicits beliefs about relationship quality and the probability of divorce (and of staying married) over 1-, 5-, and 10-year horizons, for the respondent's own marriage and for a comparable

couple. Section C is the information treatment, which presents U.S. Census figures on divorce rates and single parenthood. Section D re-elicits divorce beliefs after the treatment and asks about perceived reasons for divorce. Sections E and F ask parents and childless respondents, respectively, how the information relates to their fertility decisions and plans. Section G collects income and assets, and Section H collects further controls.

Introduction

Welcome, and thank you for participating!

Your responses are essential to our research and will provide valuable insights. All your answers will remain completely confidential. Please respond as openly and honestly as possible.

Let’s get started!

Please provide your unique Prolific ID.

ATTENTION
In this survey, once you navigate away from a current survey page, you will **NOT** be able to go back to edit your responses.

Your Marriage or Engagement

Are you currently in a same-sex marriage or same-sex engagement?

- ◯ Yes, I am in a same-sex marriage or same-sex engagement
- ◯ No, I am not in a same-sex marriage or same-sex engagement
- ◯ Prefer not to say

Your and Your Spouse's Marriage History

ATTENTION
In this survey, the term 'spouse' refers to your current partner, whether you are married or engaged.

Have **you** been married **before** your current engagement or marriage?

- ◯ No, I have never been married before my current engagement or marriage
- ◯ Yes, I have been married one or more times before my current engagement or marriage

Has **your spouse** been married **before** your current marriage or engagement?

- ◯ No, my spouse has never been married before our current engagement or marriage
- ◯ Yes, my spouse has been married one or more times before our current engagement or marriage

Are you or your spouse currently in the process of annulling your engagement **or** undergoing divorce proceedings?

- ◯ Yes, we are annulling our engagement or undergoing divorce proceedings
- ◯ No
- ◯ Prefer not to say

Divorce Expectations

ATTENTION

In the following questions, we will ask you to estimate the **percent chance** of something happening in the future.
Your answers can **range from 0 to 100**, where 0 means there is *absolutely no chance*, and 100 means that it is *absolutely certain*.

For example numbers like ...
2 and 5 percent may indicate '*almost no chance*';
18 percent or so may mean '*not much chance*';
47 or 52 percent chance may be a '*pretty even chance*';
83 percent or so may mean a '*very good chance*';
95 or 98 percent chance may be '*almost certain*'.

Imagine a **couple comparable to you and your spouse** in characteristics such as:

- financial situation,
- education,
- age,
- family composition
- and marriage duration.

What is the percent chance of **them** divorcing at some point in the future?

0% (no chance of occurring)	50% (equal chance of occurring or not occurring)	100% (completely certain it will occur)

How confident are you in your previous answer?

- ◯ not confident at all
- ◯ somewhat not confident
- ◯ neutral
- ◯ somewhat confident
- ◯ very confident

In the following questions, please consider both your and your spouse's characteristics, as well as current circumstances.

What is the chance of you and your spouse **divorcing within the next 5 years**?

0% (no chance of occurring) | 50% (equal chance of occurring or not occurring) | 100% (completely certain it will occur)

How confident are you in your previous answer?

- not confident at all
- somewhat not confident
- neutral
- somewhat confident
- very confident

What is the chance of you and your spouse **divorcing within the next 10 years**?

ATTENTION
The probability of a divorce occurring within the next 10 years should be the **same or higher** than your previous answer to the question about the next 5 years.

0% (no chance of occurring) | 50% (equal chance of occurring or not occurring) | 100% (completely certain it will occur)

How confident are you in your previous answer?

- not confident at all
- somewhat not confident
- neutral
- somewhat confident
- very confident

What is the chance of you and your spouse **ever divorcing at some point in the future**?

ATTENTION
The probability of a divorce ever occurring should be the **same or higher** than your previous answer to the question about the next 10 years.

0% (no chance of occurring) | 50% (equal chance of occurring or not occurring) | 100% (completely certain it will occur)

How confident are you in your previous answer?

- not confident at all
- somewhat not confident
- neutral
- somewhat confident
- very confident

The test you are about to take part in is very simple, when asked for your favorite animal you must select 'bird'. This is an attention check.

Based on the text you read above, what animal have you been asked to enter?

- ◯ dog
- ◯ bird
- ◯ cat
- ◯ lion
- ◯ horse

Imagine there is a **80% chance** that you and your partner might divorce at some point in the future. How would this knowledge influence **your decisions** about your current and future plans?

For example, consider its impact on savings, work hours, time spent on child caretaking and household chores, or other areas of life.

Please provide at least one or two sentences.

Marriage Expectations

ATTENTION

In the following questions, we will ask you to estimate the **percent chance** of something happening in the future.
Your answers can **range from 0 to 100**, where 0 means there is *absolutely no chance*, and 100 means that it is *absolutely certain*.

For example numbers like ...
2 and 5 percent may indicate '*almost no chance*';
18 percent or so may mean '*not much chance*';
47 or 52 percent chance may be a '*pretty even chance*';
83 percent or so may mean a '*very good chance*';
95 or 98 percent chance may be '*almost certain*'.

Imagine a couple **comparable to you and your spouse** in characteristics such as:

- financial situation,
- education,
- age,
- family composition
- and marriage duration.

What is the percent chance of **them** staying married for the rest of their lives?

0% (no chance of occurring) | 50% (equal chance of occurring or not occurring) | 100% (completely certain it will occur)

How confident are you in your previous answer?

- not confident at all
- somewhat not confident
- neutral
- somewhat confident
- very confident

In the following questions, please consider both your and your spouse's characteristics, as well as current circumstances.

What is the chance that you and your spouse **will still be married in 5 years**?

0% (no chance of occurring) | 50% (equal chance of occurring or not occurring) | 100% (completely certain it will occur)

How confident are you in your previous answer?

- not confident at all
- somewhat not confident
- neutral
- somewhat confident
- very confident

What is the chance that you and your spouse **will still be married in 10 years**?

ATTENTION
The probability of "still being married" in 10 years should be the **same or smaller** than your previous answer to the question about the next 5 years.

0% (no chance of occurring) | 50% (equal chance of occurring or not occurring) | 100% (completely certain it will occur)

How confident are you in your previous answer?

- ◯ not confident at all
- ◯ somewhat not confident
- ◯ neutral
- ◯ somewhat confident
- ◯ very confident

What is the chance that you and your spouse **will stay married for the rest of your lives**?

ATTENTION
The probability of staying married for the rest of your lives should be the **same or smaller** than your previous answer to the question about the next 10 years.

0% (no chance of occurring) | 50% (equal chance of occurring or not occurring) | 100% (completely certain it will occur)

How confident are you in your previous answer?

- ◯ not confident at all
- ◯ somewhat not confident
- ◯ neutral
- ◯ somewhat confident
- ◯ very confident

The test you are about to take part in is very simple, when asked for your favorite animal you must select 'bird'. This is an attention check.

Based on the text you read above, what animal have you been asked to enter?

- ◯ dog
- ◯ bird
- ◯ cat
- ◯ lion
- ◯ horse

Imagine there is a **20% chance** that you and your partner might stay married.
How would this knowledge influence **your decisions** about your current and future plans?

For example, consider its impact on savings, work hours, time spent on child caretaking and household chores, or other areas of life.

Please provide at least one or two sentences.

Demographic Characteristics

What is **your** biological sex?

- ◯ Male
- ◯ Female
- ◯ Intersex
- ◯ Other

What is **your spouse's** biological sex?

- ◯ Male
- ◯ Female
- ◯ Intersex
- ◯ Other

How old are **you**?

How old is **your spouse**?

What best describes **your** ethnicity? (Select all that apply)

- ☐ American Indian or Alaska Native
- ☐ Asian or Asian American
- ☐ Black or African American
- ☐ Hispanic or Latino
- ☐ Middle Eastern or North African
- ☐ Native Hawaiian or other Pacific Islander
- ☐ White
- ☐ Other

What best describes **your spouse's** ethnicity? (Select all that apply)

- [ ] American Indian or Alaska Native
- [ ] Asian or Asian American
- [ ] Black or African American
- [ ] Hispanic or Latino
- [ ] Middle Eastern or North African
- [ ] Native Hawaiian or other Pacific Islander
- [ ] White
- [ ] Other

Do **you** have a physical or mental condition that limits the type of work, or the amount of work you can do?

- ◯ Yes, I have a condition that limits my work.
- ◯ No, I don't have any conditions that limit my work.
- ◯ Prefer not to answer.
- ◯ I don't know.

Does **your spouse** have a physical or mental condition that limits the type of work, or the amount of work she/he can do?

- ◯ Yes, my spouse has a condition that limits her/his work.
- ◯ No, my spouse does not have any conditions that limit her/his work.
- ◯ Prefer not to answer.
- ◯ I don't know.

In which US state do you currently reside?

Which of the following best describes the area where **you** grew up?

- ◯ Farm, rural area or countryside
- ◯ Small town, any size town or suburb
- ◯ Large city or any size city
- ◯ Other
- ◯ Don't know

Which of the following best describes the area where **your spouse** grew up?

- ◯ Farm, rural area or countryside
- ◯ Small town, any size town or suburb
- ◯ Large city or any size city
- ◯ Other
- ◯ Don't know

Marriage Duration and Parental Divorce

How many years have you been married to your current spouse?

Please provide your best estimate if you are not sure.

Which of the following best describes **your** parents' relationship, either currently (if both are alive) or before their passing?

- ◯ Parents married
- ◯ Parents unmarried **and** living together
- ◯ Parents unmarried **and not** living together
- ◯ Parents divorced or in the process of divorce
- ◯ Other
- ◯ Don't know

Which of the following best describes **your spouse's** parents' relationship, either currently (if both are alive) or before their passing?

- ◯ Parents married
- ◯ Parents unmarried **and** living together
- ◯ Parents unmarried **and not** living together
- ◯ Parents divorced or in the process of divorce
- ◯ Other
- ◯ Don't know

The color test you are about to take part in is very simple, when asked for your favorite color you must select 'Blue'. This is an attention check.

Based on the text you read above, what color have you been asked to enter?

- ◯ Red
- ◯ Blue
- ◯ Green
- ◯ Orange
- ◯ Brown

Your Work Experience and Working Status

How many years have **you** worked **part-time** (fewer than 35 hours per week) in paid employment or paid self-employment?

Please provide your best estimate if you are not sure.

How many years have **you** worked **full-time** (35 hours or more per week) in paid employment or paid self-employment?

Please provide your best estimate if you are not sure.

Please indicate which of the following best describes **your** current labor market situation?

- ◯ Working for pay
- ◯ Unemployed
- ◯ Retired or permanently disabled
- ◯ Student
- ◯ Other
- ◯ Don't know

Respondent Works for Pay

How many hours do **you** usually work per week at your job?

Please provide your best estimate if you are not sure.

What is **your current annual gross labor income** (before taxes and deductions), as reported for tax purposes?

- Include only earnings from employment or self-employment.
- Include income from bonuses, overtime, and commissions.
- Report whole numbers. For example report $35200.50 as "35201".
- If exact information is unavailable, please provide your best estimate.

What was **your annual gross labor income** (before taxes and deductions), as reported for tax purposes, **in the last year**?

- Include only earnings from employment or self-employment.
- Include income from bonuses, overtime, and commissions.
- Report whole numbers. For example report $35200.50 as "35201".
- If exact information is unavailable, please provide your best estimate.

Respondent's Occupation

Which of the following best describes ...
your current occupation (**if** you are currently working for pay) or
your most recent occupation (**if** you are not currently working for pay)?

Respondent Works in Management Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Business and Financial Operations Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Computer and Mathematical Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Architecture and Engineering Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Life, Physical, and Social Science Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Community and Social Services Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Legal Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Education Instruction, and Library Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Arts, Design, Entertainment, Sports, and Media Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Healthcare Practitioners and Technical Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Healthcare Support Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Protective Service Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Food Preparation and Serving Related Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Building and Grounds Cleaning and Maintenance Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Personal Care and Service Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Sales and Related Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Office and Administrative Support Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Farming, Fishing, and Forestry Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Construction

Can you be more specific about what best describes **your** occupation?

Respondent works in Installation, Maintenance, and Repair Workers

Can you be more specific about what best describes **your** occupation?

Respondent works in Production Occupations

Can you be more specific about what best describes **your** occupation?

Respondent works in Transportation and Material Moving Occupations

Can you be more specific about what best describes **your** occupation?

Your Spouse's Work Experience and Work Status

How many years has **your spouse** worked **part-time** (fewer than 35 hours per week) in paid employment or paid self-employment?

Please provide your best estimate if you are not sure.

How many years has **your spouse** worked **full-time** (35 hours or more per week) in paid employment or paid self-employment?

Please provide your best estimate if you are not sure.

Please indicate which of the following best describes **your spouse's** current labor market situation?

- ◯ Working for pay
- ◯ Unemployed
- ◯ Retired or permanently disabled
- ◯ Student
- ◯ Other
- ◯ Don't know

Spouse Works for Pay

How many hours does **your spouse** usually work per week at his/her job?

Please provide your best estimate if you are not sure.

What is **your spouse's current annual gross labor income** (before taxes and deductions), as reported for tax purposes?

- Include only earnings from employment or self-employment.
- Include income from bonuses, overtime, and commissions.
- Report whole numbers. For example report $35200.50 as "35201".
- If exact information is unavailable, please provide your best estimate.

What was **your spouse's annual gross labor income** (before taxes and deductions), as reported for tax purposes, **in the last year**?

- Include only earnings from employment or self-employment.
- Include income from bonuses, overtime, and commissions.
- Report whole numbers. For example report $35200.50 as "35201".
- If exact information is unavailable, please provide your best estimate.

Spouse's Occupation

Which of the following best describes ...
your spouse's current occupation (**if** she/he is currently working for pay) or
your spouse's most recent occupation (**if** she/he is not currently working for pay)?

Spouse works in Management occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Business and Financial Operations Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Computer and Mathematical Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Architecture and Engineering Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Life, Physical, and Social Science Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Community and Social Services Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Legal Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Education Instruction, and Library Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Arts, Design, Entertainment, Sports, and Media Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Healthcare Practitioners and Technical Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Healthcare Support Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Protective Service Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Food Preparation and Serving Related Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Building and Grounds Cleaning and Maintenance Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Personal Care and Service Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Sales and Related Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Office and Administrative Support Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Farming, Fishing, and Forestry Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse Respondent works in Construction

Can you be more specific about what best describes **your spouse's** occupation?

Spouse Respondent works in Installation, Maintenance, and Repair Workers

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Production Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Spouse works in Transportation and Material Moving Occupations

Can you be more specific about what best describes **your spouse's** occupation?

Household and Family Information

How many people (adults and children) live in your household, **including** yourself and your spouse?

How many children do you have with your spouse?
(Please choose '0' if none.)

How many children under 18 years of age currently live with you?
(Please choose '0' if none.)

The test you are about to take part in requires your focus. When asked for your favorite fruit, you must choose "Apple." This is an attention check.

Based on the text you read above, what fruit have you been asked to select?

- Banana
- Orange
- Apple
- Grape
- Mango

Respondent Lives with One Child

How old is the **youngest** child living in your household?

Respondent Lives with Two Children

How old are the **two youngest** children living in your household?

	Youngest child	**Second** youngest child
Age		

Respondent Lives with Three Children or More

How old are the **three youngest** children living in your household?

	Youngest child	**Second** youngest child	**Third** youngest child
Age			

Respondent's Time Spend on Domestic Work

Think about a **typical day off work** (usually Saturday-Sunday).
How many hours per day do **you** usually spend on the following activities?

Use the *hours* and *minutes* boxes to indicate the **total** amount of time per activity.
Please provide your best estimate if you are not sure.

	Hours per day	**Minutes per day**
Childcare		
Caregiving (for elderly or persons in need of care)		
Household Chores (cleaning, repairing, household finances, cooking, grocery shopping, ...)		

Think about a **typical workday** (usually Monday-Friday).
How many hours per day do **you** usually spend on the following activities?

Use the *hours* and *minutes* boxes to indicate the **total** amount of time per activity.
Please provide your best estimate if you are not sure.

	Hours per day	**Minutes per day**
Childcare		
Caregiving (for elderly or persons in need of care)		
Household Chores (cleaning, repairing, household finances, cooking, grocery shopping, ...)		

Spouse's Time Spend on Domestic Work

Think about a **typical day off work** (usually Saturday-Sunday) **of your spouse**.
How many hours per day does **she/he** usually spend on the following activities?

Use the *hours* and *minutes* boxes to indicate the **total** amount of time per activity.
Please provide your best estimate if you are not sure.

	Hours per day	Minutes per day
Childcare		
Caregiving (for elderly or persons in need of care)		
Household Chores (cleaning, repairing, household finances, cooking, grocery shopping, ...)		

Think about a **typical workday** (usually Monday-Friday) **of your spouse**.
How many hours per day does **she/he** usually spend on the following activities?

Use the *hours* and *minutes* boxes to indicate the **total** amount of time per activity.
Please provide your best estimate if you are not sure.

	Hours per day	Minutes per day
Childcare		
Caregiving (for elderly or persons in need of care)		
Household Chores (cleaning, repairing, household finances, cooking, grocery shopping, ...)		

Educational Background

What is **your highest** educational attainment?

- ◯ 0-5 grades
- ◯ 6-8 grades
- ◯ 9-11 grades
- ◯ 12 grades (high school)
- ◯ College, no degree
- ◯ College, with degree (Bachelors degree)
- ◯ College, advanced/professional degrees (for example M.A., Ph.D., M.D.)
- ◯ Don’t know

What is **your spouse's** highest educational attainment?

- ◯ 0-5 grades
- ◯ 6-8 grades
- ◯ 9-11 grades
- ◯ 12 grades (high school)
- ◯ College, no degree
- ◯ College, with degree (Bachelors degree)
- ◯ College, advanced/professional degrees (for example M.A., Ph.D., M.D.)
- ◯ Don’t know

Residential Situation

Do you own or rent the home you live in?

- ◯ Own home (or trailer, fully or jointly)
- ◯ Rent (or share rent)
- ◯ Neither own nor rent

Respondent Owns his/her House

What is your estimate of the **current** market value of the **house you live in**, including the land/lot it occupies, at today's market prices?

Household Finances

Who is **primarily** responsible for managing your household’s finances?

- ◯ We have separate accounts.
- ◯ I am responsible.
- ◯ My spouse is responsible.
- ◯ We both share equal responsibility.
- ◯ Neither of us.

Couple has Separate Accounts

Please provide **your** total estimated **debt** and **your spouse's** total estimated **debt**, respectively, in US dollars.

This includes all outstanding loans, mortgages, credit card balances, and other financial obligations.

	Your account	Estimate for **your spouse's** account
Amount in $		

Please provide **your** total estimated **asset value** and **your spouse's** total estimated **asset value**, respectively, in US dollars (excluding debt).

This includes the value of all investments, savings, real estate (**excluding** your primary home), vehicles, and other assets.

	Your account	Estimate for **your spouse's** account
Amount in $		

Respondent is Responsible for Household Finances

Please provide **your and your spouse's** common total estimated **debt** in US dollars.

This includes all outstanding loans, mortgages, credit card balances, and other financial obligations.

Please provide **your and your spouse's** common total estimated **asset value** in US dollars (excluding debt).

This includes the value of all investments, savings, real estate (**excluding** your primary home), vehicles, and other assets.

Estimated Total Common Debt and Asset Value

Please provide **your and your spouse's** common total estimated **debt** in US dollars.

This includes all outstanding loans, mortgages, credit card balances, and other financial obligations.

Please provide **your and your spouse's** common total estimated **asset value** in US dollars (excluding debt).

This includes the value of all investments, savings, real estate (**excluding** your primary home), vehicles, and other assets.

Survey Outro - Group Default

Thank you for participating in this survey!

Please follow this link to get back to Prolific or copy paste this completion code: C1HXCD0R

Survey Outro - Group Screening

Thank you for participating in this survey!

Please follow this link to get back to Prolific or copy paste this completion code: C3UQIK15

Section A: Baseline Survey.Part 1 Fertility and Time use

A1. **To proceed, please copy and paste your unique Prolific ID in the field below. You can easily copy your ID from your Prolific account.**

A2. **How many children in total have you ever had?**

- 0 ☐
- 1 ☐
- 2 ☐
- 3 ☐
- More than 3 ☐
- Prefer not to answer ☐

A3. **How old were you when you had each child?**

- First child
- Second child
- Third child
- Forth child

A4. **Did you make any changes to your work life to accommodate becoming parents? This could mean taking parental leave, working fewer hours, switching to a more flexible job, or even working more to meet financial needs.**

- Yes ☐
- No ☐
- Prefer not to answer ☐

A5. Please specify any work adjustments you have made:

- [ ] Took parental leave
- [ ] Reduced working hours
- [ ] Switched to a more flexible job
- [ ] Increased working hours to meet financial needs
- [ ] Stopped working temporarily

A6. How long was your parental leave? (Please specify in weeks)

A7. For how long did you temporarily stop working? (Please specify in weeks)

A8. Did your partner make any changes to your work life to accommodate becoming parents? This could mean taking parental leave, working fewer hours, switching to a more flexible job, or even working more to meet financial needs.

- [ ] Yes
- [ ] No
- [ ] Prefer not to answer

A9. Please specify any work adjustments your partner has made:

- [ ] Took a parental leave
- [ ] Reduced working hours
- [ ] Switched to a more flexible job
- [ ] Increased working hours to meet financial needs
- [ ] Stopped working temporarily

A10. How long was your partners' parental leave? (Please specify the duration in weeks)

A11. For how many weeks did your partner temporarily stop working? (Please specify the duration in weeks)

A12. Do you want to have children?

- [ ] Yes
- [ ] No
- [ ] Prefer not to answer

A13. How many children do you plan to have in the future?

- 1 ☐
- 2 ☐
- 3 ☐
- More than 3 ☐
- Prefer not to asnwer ☐

A14. At what age do you plan to have your first child? Please specify your expected age in years

- 18 ☐
- 19 ☐
- 20 ☐
- 21 ☐
- 22 ☐
- 23 ☐
- 24 ☐
- 25 ☐
- 26 ☐
- 27 ☐
- 28 ☐
- 29 ☐
- 30 ☐
- 31 ☐
- 32 ☐
- 33 ☐
- 34 ☐
- 35 ☐
- 36 ☐
- 37 ☐
- 38 ☐
- 39 ☐
- 40 ☐

41 ☐

42 ☐

43 ☐

44 ☐

45 ☐

A15. If you were to become a parent in the future, how do you think you would adjust your work life to accommodate parenthood?

Yes ☐

No ☐

Prefer not to answer ☐

A16. What work adjustments do you think you might make if you become a parent in the future?

Take parental leave ☐

Work fewer hours to accomodate child needs ☐

Switch to a more flexible job ☐

Work more to meet financial needs ☐

Stop working temporarily ☐

A17. If your partner were to become a parent in the future, how do you think they would adjust their work life to accommodate parenthood?

Take parental leave ☐

Work fewer hours to accomodate child needs ☐

Switch to a more flexible job ☐

Work more to meet financial needs ☐

Stop working temporarily ☐

A18. Would you say that at the present time, business conditions are better or worse than they were a year ago? This is a data quality check. Regardless of your true preference, please select 'About the Same'.

Better ☐

About the same ☐

Worse ☐

Section B: Baseline Survey. Part II. Expectations and relationship quality

B1. **Using a scale from 0 to 10 where 0 means "the worst possible marriage" and 10 means "the best possible marriage" how would you rate your marriage these days?**

- 0 ☐
- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐
- 10 ☐

B2. **How do you think your partner would rate your marital partnership these days using the same 0 to 10 scale?**

- 0 ☐
- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐
- 10 ☐

B3. **Looking ahead ten years into the future, what do you expect your marriage to be like at that time? How would you rate your marriage at that time using the same 0 to 10 scale?**

- 0 ☐
- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐
- 10 ☐

B4. **Looking ahead ten years into the future, how do you think your partner would rate your marriage at that time? Please use the same 0 to 10 scale, where 0 means "the worst possible marriage" and 10 means "the best possible marriage.**

- 0 ☐
- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐
- 10 ☐

B5. **Predicting the future of a marriage is always challenging, but realistically, what do you think the chances are that you and your partner will eventually divorce?**

Please use a scale from 0% (no chance of divorce) to 100% (absolute certainty of divorce). Provide your prediction for each of the following time periods based on what you believe is true for your relationship:

In 1 year from now	
In 5 years from now	
In 10 years from now	

B6. **In the past week, did you read any of the following newspapers, either online or in print? Please select all that apply. We also want to see whether people are reading the questions carefully. This is a data quality check. Regardless of your true answer, please select 'Daily News' and 'None of the above'.**

- [ ] USA Today
- [ ] The Wall Street Journal
- [ ] The New York Times
- [ ] The Washington Post
- [ ] Daily News
- [ ] None of the above

B7. **On a scale from 0% (no chance) to 100% (absolute certainty), what do you think is the probability that your own marriage or relationship will last? Please provide your estimate for each of the following time periods based on what you believe is true for your situation.**

In 1 year from now	
In 5 years from now	
In 10 years from now	

B8. **On a scale from 0% (no chance) to 100% (absolute certainty), what do you think is the probability that a couple with similar financial, economic, and relationship dynamics to yours will stay together? Please provide your estimate for each of the following time periods based on what you believe is true for such a couple.**

In 1 year from now	
In 5 years from now	
In 10 years from now	

B9. Predicting the future of a marriage is always challenging. Realistically, what do you think is the probability that a couple with similar financial, economic, and relationship dynamics to yours will eventually divorce?

Please use a scale from 0% (no chance of divorce) to 100% (absolute certainty of divorce).

Provide your estimate for each of the following time periods based on what you believe is true for such a couple.

In 1 year from now	
In 5 years from now	
In 10 years from now	

Section C: Information

To provide some background on marital stability and singlehood parenting in the United States, please review the following information:

National Divorce Rate:

- In 2022, approximately 40% of marriages in the United States end in divorce. This means that out of every 100 marriages, about 40 are expected to dissolve over time.

Single Parenthood in the U.S.

- Approximately 30% of children in the U.S. are raised in single-parent households

- Single-parent households have an average annual income of $50,000, compared to $80,000 for two-parent households

- About 25% of single-parent families live below the poverty line, whereas 10% of two-parent families are in poverty.

Note: These information is based on the latest data available U.S. Census Bureau as of 2022.

Section D: Endline Survey

D1. **Now that you've seen the information about divorce rates in the U.S., do you think that you will ever get a divorce from your current partner?**

- ☐ No, won't divorce
- ☐ Will probably divorce
- ☐ May or may not divorce
- ☐ Will probably divorce
- ☐ Yes, will definitely divorce

D2. **Now that you've seen the information about divorce rates in the U.S., how has your perspective changed?Realistically, based on this information, how likely do you think it is (in percentage) that you and your partner will eventually divorce? Please use a scale from 0% (no chance of divorce) to 100% (absolute certainty of divorce). Provide your prediction for each of the following time periods based on what you believe is true for your relationship.**

In 1 year from now ☐☐☐☐☐☐☐☐☐☐

In 5 years from now ☐☐☐☐☐☐☐☐☐☐

In 10 years from now ☐☐☐☐☐☐☐☐☐☐

D3. **How does the information about actual divorce rates make you feel about your current marriage?**

- ☐ Very Concerned
- ☐ Somewhat Concerned
- ☐ Neutral
- ☐ Somewhat Reassured
- ☐ Very Reassured

D4. What do you think the reason for divorce?

- [ ] Infidelity
- [ ] Financial problems
- [ ] Domestic violence
- [ ] Communication problems
- [ ] Lack of commitment
- [ ] Unrealistic expectations
- [ ] Health issues
- [ ] Other

D5. What do you think could be a potential reason for divorce in your relationship?

- [ ] Infidelity
- [ ] Financial problems
- [ ] Domestic violence
- [ ] Communication problems
- [ ] Lack of commitment
- [ ] Unrealistic expectations
- [ ] Health issues
- [ ] None of the above

Section E: Individuals with children

E1. Does the information about divorce rates change how you view your past decisions about having children, specifically regarding the timing and number of children you chose to have?

- [ ] I would have had more children
- [ ] I would have had fewer children
- [ ] I would have had children earlier
- [ ] I would have had children later
- [ ] No change
- [ ] Prefer not to answer

E2. **Looking back, were your expectations about marital stability at the time of having your first child accurate compared to how your relationship evolved? On a scale of 0 to 10, where 0 means "not at all accurate" and 10 means "completely accurate," how would you rate the accuracy of your past expectations?**

- 0 ☐
- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐
- 7 ☐
- 8 ☐
- 9 ☐
- 10 ☐

E3. **Does the information about divorce rates change how you view your past decisions about having children, specifically regarding the career adjustments you made?**

- I would have made fewer career adjustments (e.g., worked more or taken less leave). ☐
- I would have made more career adjustments (e.g., worked less or taken more leave). ☐
- I would have prioritized my career differently (e.g., pursued different opportunities or roles). ☐
- I would have returned to work earlier. ☐
- I would have delayed my return to work. ☐
- No change. ☐

E4. **When you considered having children, did you discuss the work and childcare arrangements with your partner?**

- Yes ☐
- No ☐

Section F: Childless individuals

F1. **After reviewing the divorce rate information provided, have your plans regarding having children changed? For example, do you now plan to delay having children, have children earlier, have fewer children than originally intended, or decide not to have children at all?**

- [ ] I plan to delay having children
- [ ] I plan to have children earlier
- [ ] I plan to have fewer children than originally intended
- [ ] I plan to decide not to have children at all
- [ ] My plans have not changed
- [ ] Prefer not to answer

F2. **At what age do you plan to have your first child? Please specify your expected age in years**

- [ ] 18
- [ ] 19
- [ ] 20
- [ ] 21
- [ ] 22
- [ ] 23
- [ ] 24
- [ ] 25
- [ ] 26
- [ ] 27
- [ ] 28
- [ ] 29
- [ ] 30
- [ ] 31
- [ ] 32
- [ ] 33
- [ ] 34
- [ ] 35

36 ☐
37 ☐
38 ☐
39 ☐
40 ☐
41 ☐
42 ☐
43 ☐
44 ☐
45 ☐

F3. After receiving information about the divorce rate in the U.S., would you still consider making adjustments to your work life in order to take care of a child?

Yes ☐
No ☐
Prefer not to answer ☐

F4. Please specify any work adjustments you plan to make in the future.

Take a parental leave ☐
Reduce working hours ☐
Switch to a more flexible job ☐
Increase working hours to meet financial needs ☐
Stop working temporarily ☐

Section G: Income and assets

G1. What is your annual gross income? Please provide the amount in thousands of US dollars. 'Annual gross income' refers to the total income earned in a year before any deductions. If you prefer not to answer or do not know, please enter '0'.

☐☐☐☐☐☐☐☐☐☐

G2. **What is your partner's annual gross income? Please provide both amounts in thousands of US dollars. 'Annual gross income' refers to the total income earned in a year before any deductions. If you prefer not to answer or do not know, please enter '0'.**

G3. **Do you have a joint savings account with your current partner?**

- Yes
- No

G4. **Do you have a prenuptial agreement?**

- Yes
- No

G5. **Do you have an individual savings account, separate from any joint account with your current partner?**

- Yes
- No

G6. **Does your current partner have an individual savings account, separate from any joint account with you?**

- Yes
- No

Section H: Controls

H1. **What was your age (in years) at the time of current your marriage?**

- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 26
- 27
- 28
- 29

30 ☐
31 ☐
32 ☐
33 ☐
34 ☐
35 ☐
36 ☐
37 ☐
38 ☐
39 ☐
40 ☐
41 ☐
42 ☐
43 ☐
44 ☐
45 ☐

H2. **On a scale from 1 to 10, where 1 indicates 'none at all' and 10 indicates 'very much', how would you describe your:General willingness to take risks** ☐

H3. **On a scale from 1 to 10, where 1 indicates 'none at all' and 10 indicates 'very much', how would you describe your:Level of patience** ☐

H4. **On a scale from 1 to 10, where 1 indicates 'none at all' and 10 indicates 'very much', how would you describe your:Level of optimism** ☐

H5. **On a scale from 1 to 10, where 1 indicates 'none at all' and 10 indicates 'very much', how would you describe your partner's:General willingness to take risks** ☐

H6. **On a scale from 1 to 10, where 1 indicates 'none at all' and 10 indicates 'very much', how would you describe your partner's:Level of patience** ☐

H7. **On a scale from 1 to 10, where 1 indicates 'none at all' and 10 indicates 'very much', how would you describe your partner's:Level of optimism**

H8. **Have you been married before your current marriage?**

- Yes
- No
- Prefer not to answer

H9. **How many times were you married before your current marriage?**

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

H10. **What is your partner's current age?**

- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29

30 ☐
31 ☐
32 ☐
33 ☐
34 ☐
35 ☐
36 ☐
37 ☐
38 ☐
39 ☐
40 ☐
41 ☐
42 ☐
43 ☐
44 ☐
45 ☐

H11. What is the highest level of education your partner has completed?

No formal qualifications ☐
Secondary education (e.g. GED/GCSE) ☐
High school diploma/A-levels ☐
Technical/community college ☐
Undergraduate degree (BA/BSc/other) ☐
Graduate degree (MA/MSc/MPhil/other) ☐
Doctorate degree (PhD/other) ☐

H12. What is your partner's current employment status?

Full-Time ☐
Part-Time ☐
Due to start a new job within the next month ☐
Unemployed (and job seeking) ☐
Not in paid work (e.g. homemaker', 'retired or disabled) ☐

H13. Does your partner want to have children in the future?

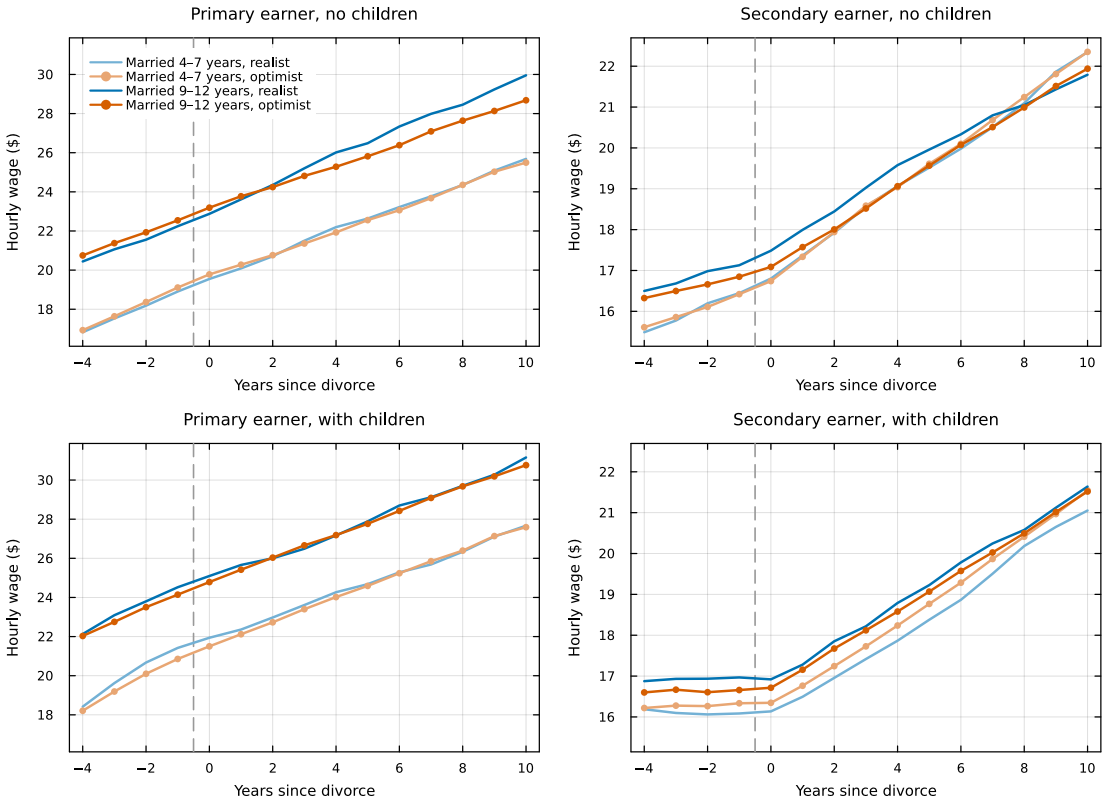
- [ ] Yes
- [ ] No
- [ ] Prefer not to answer

H14. How many children would your partner like to have in the future?

- [ ] 1
- [ ] 2
- [ ] 3
- [ ] More than 3

S6 Details on Model Results

Figure S6.1: Wages Around Divorce by Belief Type



Notes: As Figure 8, but columns split by earner role during marriage instead of gender (primary earner: the spouse with the higher average labor income during the marriage).