Information-Sharing within Couples: Evidence from a Sequential Survey of Spouses*

Adeline Delavande† Gizem Koşar‡ Basit Zafar §

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Abstract

Little is known about the extent of information-sharing within couples, and the drivers of information transmission. To provide new evidence on this topic, we conduct an online survey of 2,200 middle-aged couples in the US. Our focus is on expectations about Social Security benefits. We first show that expectations about a given spouse's Social Security benefits are often misaligned within a couple: the correlation between partners' expectations is 0.68, significantly below full agreement. We present descriptive evidence of couple-specific characteristics associated with this imperfect correlation. To establish causal evidence on information sharing, we implement a randomized information experiment paired with a sequential survey design, where the index spouse receives targeted information, and the other is surveyed a few days later. Our findings reveal that information provided to the index spouse partially spills over to their partner, with the average treatment effect on the second spouse's expectations being about half that observed for the index spouse. Using detailed survey data on measures of communication frictions, cognitive barriers, and the value of information, we identify key drivers of information sharing. Spillovers are larger when communication barriers are low and when the information is particularly valuable.

Keywords: information spillovers, expectations, household decisions, frictions, Social Security benefits, retirement

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†Nova School of Business and Economics and University of Technology Sydney. E-mail address: adeline.delavande@uts.edu.au

‡Federal Reserve Bank of New York and CESIfo. E-mail address: gizem.kosar@gmail.com

§University of Michigan and NBER. E-mail address: basitak@gmail.com

1 Introduction

Many economic decisions – how much to save, when to retire, how much labor to supply – are made jointly at the household level. The traditional workhorse model of household decision-making has been the unitary model, which assumes a single utility function for the entire household (Samuelson, 1956; Becker, 1974, 1981). In recent decades, economists have shifted from the unitary model to the collective approach in modeling household decision-making; these models recognize that the household is composed of individuals with different preferences. An important assumption in the collective model is complete information, where information flows freely within the household and partners hold the same expectations (e.g., Lundberg and Pollak 1996; Chiappori and Mazzocco 2017). Despite the centrality of this assumption, empirical evidence on the alignment of spousal expectations for the same outcomes and the extent of information sharing within couples remains limited. This gap persists despite the increasing availability of expectations data from survey respondents (Bachmann et al., 2023).

In this paper, we aim to fill this gap by conducting an online survey of 2,200 middle-aged couples in the US where participants are asked about their expectations for the same outcomes. We have three primary research objectives. First, we use these novel data to test the assumption of equality of expectations within couples. Second, we quantify the extent of information-sharing between partners and investigate the factors that facilitate or hinder information spillovers. Investigating information sharing within couples in real-life settings is challenging. To address this, we implement a randomized information intervention alongside a sequential survey design. Specifically, one treated spouse receives decision-relevant information exogenously, with no explicit incentive to share information. The second spouse is subsequently invited to take the survey once the first spouse has completed their survey. Information sharing thus occurs endogenously as it does in the "wild." By comparing the expectations of the second spouse in treated couples (that is, couples where the first spouse is treated with information) with those in control couples (where no decision-relevant information is provided), we identify the extent of spillovers. Finally, as our third research objective, we explore how the provision of information facilitates decision-making within couples.

Our primary focus is on Social Security expectations, in particular about benefits and claiming age. This is motivated by several factors. First, Social Security benefits are a crucial component of financial security in retirement in the United States, with half of those aged 65 and older receiving at least 50% of their income from Social Security benefits, and a quarter relying on it for at least 90% (Dushi et al., 2017). Second, there is widespread evidence of misinformed and uncertain expectations regarding individual Social Security benefits, as well as pensions in other contexts (e.g., Mitchell 1988; Guiso et al. 2013; Liebman and Luttmer 2015; Caplin et al. 2022). Third, expectations and uncertainty about individual Social Security benefits have been shown to play an important role in retirement planning (e.g., Bottazzi et al. 2006; Delavande and Rohwedder 2011; Luttmer

and Samwick 2018).[1] Fourth, decisions regarding savings and retirement timing are often made jointly by spouses (e.g., Blundell et al., 2016). Therefore, what matters for decision-making is not only one's beliefs about their own Social Security benefits but also those of their partner's.

We start out with a descriptive analysis of expectations within the control group. On average, individuals expect to receive $2,200 of Social Security benefits per month. Importantly, only a minority of couples hold similar expectations about a given spouse's benefit. Specifically, only 35% of the couples have a difference in monthly benefit expectations smaller than $100. Nearly half of couples have differences exceeding $200, with an overall correlation coefficient of 0.68. We can rule out measurement error as the sole driver of this imperfect alignment. Consistent with communication frictions playing some role in this imperfect correlation, we see that the correlation is lower in couples with lower levels of marital satisfaction, below-median marital length, and disagreement about the quality of the marital relationship (which is presumably indicative of some dysfunction in the relationship). This imperfect correlation is not due to Social Security benefits being unimportant to the household's finances: couples for whom benefits are likely to be a major source of post-retirement income (i.e., couples with below-median earnings) do not exhibit stronger correlations in their expectations. Moreover, we confirm that this level of correlation is not exclusive to Social Security benefit expectations. Our findings reveal similar correlations ranging from 0.46 to 0.64 for other decision-relevant expectations, including unemployment, inflation, stock market prices, household spending growth, and earnings growth.[2]

We then provide causal evidence on information sharing within a couple by leveraging a randomized information intervention combined with the sequential survey design within couples. The information treatment involves providing the index spouse (the first spouse we interview) with a forecast for future Social Security benefits for themselves and their spouse, calculated using a method similar to the SS Quick Calculator. The treatment leads the index spouses to revise their expectations (about own and spouse's Social Security benefits) substantially, reducing the absolute perception gap between expectations and the forecast by an average of 22 percentage points (39% of the baseline gap). Subsequently, we investigate whether this information spills over to the secondary spouse. Consistent with some information sharing, having a treated spouse leads to a secondary spouse – who, on average, takes the survey a couple of days after the index spouse – having an absolute perception gap that is 10-12 percentage points lower. Thus, almost half of the treatment effect on the index spouse spills over to the secondary spouse.

We investigate the heterogeneity in information spillovers to secondary spouses across various dimensions, including couple-based factors (e.g., gender of the index spouse, marital length), cog-

[1] Similarly, Social Security policy features or reforms, which change people's expectations about future Social Security benefits, have been shown to play an important role in retirement decision-making (e.g., Liebman et al., 2009; Mastrobuoni, 2011; Coyne et al., 2024; Deshpande et al., 2024).

[2] An imperfect correlation by itself does not necessarily imply inefficiency. Couples, for example, may specialize where one spouse knows the benefits and makes financial decisions, and the other does not (rationally) invest in the acquisition of Social Security information. We can rule this out in our data, since we find that spouses tend to be similarly misinformed. That is, if one partner overestimates or underestimates benefits, the other is also likely to do the same.

nitive frictions (e.g., literacy, education), communication frictions (e.g., disagreement on the quality of the marital relationship), informational value-based factors (e.g., perceived credibility of the information), and individual-level strategic motivations (e.g., responses to news that may affect bargaining power). Contrary to prior findings (Conlon et al. 2022; Fehr et al. 2023), we find only weak evidence of heterogeneity based on the gender of the index spouse. However, we observe significant heterogeneity along other dimensions. Specifically, spillovers are markedly smaller in the presence of communication frictions within the couple. Additionally, spillovers are larger when the index spouse learns that their own (or their spouse's) benefits are lower than anticipated. This finding is not consistent with strategic motives for sharing (or concealing) information, which would suggest individuals might conceal unfavorable information about themselves to maintain bargaining power. Instead, it indicates that couples are more likely to share information when the costs of not re-optimizing financial strategies is high. Overall, our findings align with a cooperative model that incorporates information frictions, where information is more likely to be shared when potential gains are present and communication barriers are minimal.

Finally, we investigate whether the information treatment enhances conditions for better intra-household decision-making. For this purpose, we focus on the alignment in expected claiming ages for the same spouse (that is, the distance between the age at which an individual expects to claim, and the age at which their spouse expects that individual to claim). It is unlikely that a couple is optimizing their financial planning for retirement if one expects their spouse to retire and claim much later or earlier than what is intended by the spouse themselves. We find that alignment of expected claiming age for the same spouse increases in the treatment group. The question that then arises is whether it is sufficient to treat just one spouse, or whether further efficiency gains are possible by treating both partners. We find that treating both spouses with information leads to more alignment than treating one spouse only.

An important contribution of this paper is to test the often-implicit assumption of alignment of economically-relevant expectations within couples. In the last few decades, there has been growing research on individual decision-making under uncertainty using subjective expectations data elicited in surveys (Manski, 2004). This body of work has shown that expectations play a crucial role in individual decision-making (see Bachmann et al. 2023 for a recent literature review). However, due to data limitations, few studies have compared expectations about the same outcomes from spouses. Our paper is the first to document this correlation of expectations for a broad range of economic outcomes pertinent to household finances. Our findings challenge the conventional assumption of complete information within couples.

We also know very little about how expectations within the same decision-making unit influence group choices. Few studies have explored this dynamic. Notable exceptions include Giustinelli (2016), which examines teenagers' and parents' school choice under subjective risk about future choice-specific outcomes, and Almås et al. (2024) and Walker et al. (2024), which discuss intra-household allocation of parental investments under uncertainty about the productivity of those investments. Beyond expectations, imperfect knowledge about spousal preferences

may also play a key role in joint decision-making (Michaud et al., 2020). Our study contributes to this work by demonstrating how information can impact alignment in retirement plans and expectations.

Our work also builds on a growing literature using within-survey randomized information provision, which has shown that survey respondents are not always well-informed about important variables and that they are responsive to new information (see Fuster and Zafar, 2023; Haaland et al., 2023 and Stantcheva, 2023 for recent reviews).[3] This literature has primarily focused on how information provided to one person influences the beliefs or decisions of that person. In contrast, we study how information flows beyond the survey to other household members. This approach provides new insights into the process of expectations formation in real life—an area where significant gaps in understanding remain (Manski, 2023)—and, in particular, highlights the role of the household as an important but imperfect source of information sharing.

Finally, our study also contributes to an emerging literature on information transmission within couples through exogenously-provided information (Conlon et al. 2022; Apedo-Amah et al. 2023; Ashraf et al. 2023; Fehr et al. 2023). Focusing on a context where spouses may find it beneficial to share, Conlon et al. (2022) study a stylized lab-in-the-field setting in India, and Fehr et al. (2023) focus on learning about household income rank in Germany in a survey. Both studies focus on gender dynamics and reveal that husbands' information is more effectively transmitted than wives'. Our findings suggest that this gender disparity may vary depending on the context and outcomes under consideration. Specifically, we find only weak evidence of gender-based heterogeneity in information spillover for a key economic outcome crucial for many households.[4] We are not aware of any work to date in developed countries' settings that empirically investigates how information relevant for key economic decisions (such as saving, retirement, labor supply) diffuses within households. In addition, our rich data allow us to identify factors that impede or facilitate the flow of information within couples when there are gains to sharing. Prior work has solely focused on the gender dynamics of information-sharing.

Importantly, our empirical findings challenge theoretical models that assume perfect information sharing within households. The significant misalignment in expectations and the partial spillover of information highlight the importance of incorporating communication frictions into these models. For policy design, our results suggest two avenues: interventions that encourage communication between spouses about financial matters, and policies that coordinate the timing and delivery of information to both partners. In the context of Social Security, this could be

[3]Existing studies have focused on a wide range of topics, including contraception (Delavande, 2008), education (Wiswall and Zafar, 2015), inflation (Coibion et al., 2020) and discrimination (Haaland and Roth, 2023).

[4]Our prior is that spouses have an incentive to share information about Social Security benefits, and we will test this by considering strategic motives. Apedo-Amah et al. (2023) and Ashraf et al. (2023) focus on information flow in situations where spouses may have individual strategic incentives to withhold information because of differing preferences, e.g. regarding fertility. This work builds on research from development economics documenting barriers to spousal communication when spouses have private information they can strategically use to influence household decisions. This includes studies of temporary migrants who can easily hide pertinent information like earnings (e.g., Chen 2013; de Laat 2014; Ur Rehman 2023) or studies where the observability of choices or resources is experimentally manipulated (e.g., Ashraf et al. 2014).

achieved by implementing reminders for both spouses to review their Social Security accounts simultaneously, encouraging communication and joint decision-making.

2 Data and Context

2.1 Social Security in the U.S.

The Old-Age, Survivors, and Disability Insurance (OASDI) program provides financial assistance to eligible individuals, focusing primarily on retirees, disabled individuals, and survivors. The program pays monthly retirement benefits to eligible workers. Eligibility for benefits is primarily contingent upon an individual's work history and contributions to Social Security through payroll taxes. Benefits are typically computed using average indexed monthly earnings. This average summarizes up to 35 years of a worker's indexed earnings. Eligible individuals can start claiming benefits as early as age 62, but this may lead to a reduction of up to 30% in monthly benefits compared to claiming at the *full retirement age* (67 for those born after 1960). Claiming benefits after the full retirement age may result in larger monthly benefits, with maximum benefits attained at age 70 (Social Security Administration, 2020).

A married person aged 62 or older can qualify for benefits based on both their own work record and their spouse's work record, given a minimum one-year marriage. Spousal benefits range from one-third to one-half of the worker's benefits. If the individual is also eligible for benefits based on own earnings, they will receive the higher benefit amount between own and spousal benefits (Social Security Administration, 2021). Divorced individuals who were married at least 10 years are eligible for Social Security benefits based on their ex-spouse's record if they are unmarried and not entitled to a higher benefit on their own record when they become eligible.[5]

Various claiming options therefore exist for married couples, and determining the optimal strategy is complex, depending on factors such as each spouse's life expectancy, earnings history, health, discount rate, and leisure preferences. An essential aspect of formulating this strategy, as underscored by numerous online retirement planning advisors, involves a full understanding of both one's future Social Security benefits and those of one's spouse.

2.2 Research Design and Sample

Our survey was administered by NielsenIQ between January and July 2022. We recruited respondents from two separate pools used by NielsenIQ: rotated-out married respondents from the NY Fed's Survey of Consumer Expectations who previously reported they would consent to NielsenIQ contacting their spouses for future surveys, and a third-party panel of respondents NielsenIQ uses for other research projects. In recruiting these individuals whom we refer to as

[5] In the event of a spouse's or ex-spouse's death, the surviving widow is entitled to receive widow's benefits. The widow is eligible to receive a percentage ranging from 71 percent (at age 60) to the full 100 percent (at full retirement age) of the amount the deceased spouse was receiving before their passing (Social Security Administration, 2021).

"index spouses" henceforth, we restricted the available sample to those who are between ages 38 and 62, not retired, not receiving any income from Social Security, and reporting that their spouses are also not receiving any income from Social Security. Lastly, we only included index spouses who shared an email address that is different than their own for their spouses.

After index spouses were screened, they received the link to the survey with an incentive of $\$15$. In the introduction of the survey, respondents were informed that their spouses ("secondary spouses", henceforth) will also receive a link to a similar survey with an incentive of $\$15$ and that if their spouse completes the survey, the couple (specifically, the index spouse) will receive an additional $\$15$. The secondary spouse survey links were automatically sent once the index spouses completed their survey. This sequential design allows us to measure spillovers within a household. The average gap between the index spouse completing the survey and the secondary spouse starting the survey is 2.5 days in our sample.

In the survey, both index and secondary spouses received randomized information treatments with slightly different designs, as described in Section 2.3. We assigned 22% of index spouses to the control group and 78% to the treatment group. A much larger proportion of the sample was assigned to the treatment group since, within the treatment group, secondary spouses are randomized into two different kinds of treatments. In addition, since much of our analysis exploits within-individual variation, the treatment group share was chosen to be larger. The treatment assignment is the same for both members of the couple, so that if the index spouse is in the control group, the secondary spouse is also assigned to the control group.

This recruiting process led to 9,159 index spouse and 2,219 couple completes (that is, about a quarter of the index spouses had their partner also complete the survey). In our empirical analysis, we use the sample of complete couples. Secondary spouses in treatment couples are slightly more likely to complete the survey than those in control couples, with a completion rate of 25.5% versus 22.6%. This difference is statistically significant (p-value = 0.004). In Appendix Table A1, we regress the likelihood of the secondary spouse completing the survey onto a rich set of characteristics of the index spouse, separately for the control and treatment couples. The selection (on observables) for secondary spouse completion is similar for the two groups (none of the p-values testing the equality of coefficients between treatment and control groups in the last column of the table are below 0.10). This suggests little evidence of differential selection on observables between treatment and control couples.

Additionally, Table A1 shows that secondary spouses are generally more likely to complete the survey in couples where the index spouse is more financially literate, expects lower age-67 benefits, and reports higher expected benefits for the secondary spouse (based on the index spouse's provided earnings). Importantly, marital satisfaction, as reported by the index spouse, does not significantly influence the likelihood of a couple completing the survey. This indicates that our sample is not biased toward couples with particularly high levels of marital satisfaction.

The demographic characteristics of our sample of couples is presented in Table 1. The majority of the index spouses are female and the majority of the sample is white, has a college degree and

is below age 45. Due to its importance in retirement planning, the survey elicited measures of financial literacy. Approximately 30% of the sample is considered financially literate, based on their ability to correctly answer two questions regarding compound interest and the real value of money under inflation.[6] We also measure the respondents' perceptions of their own and spouses' financial savviness by asking "How financially savvy would you say you/ your spouse are?". On average, respondents evaluate their own and their spouses' financial savviness as a 5 out of a 7-point Likert scale.

Related to marital satisfaction, we elicit respondents' perceptions about their relationship with their spouses using four questions on how happy they are with their relationship, whether they have a warm and comfortable relationship with their spouse, how rewarding they find their relationship with their spouse, and how satisfied they are with their relationship; the responses to these are elicited with a 5 or 6-point Likert scale. These questions are from the 4-item battery developed by Funk and Rogge (2007). Using the responses to these questions, we create a marital satisfaction index defined as the sum of the standardized values for these questions (the index is also standardized to have mean 0 and variance 1, with a higher value indicating greater satisfaction). There is substantial variation across individuals and within couples in the index (Appendix Table A2). For example, of the index spouses whose responses put them in the highest quartile of the index, only about two-thirds of their spouses also report marital satisfaction in the same quartile. In fact, as shown in the table, 43% of couples answer such that both spouses fall in *different* quartiles of the marital satisfaction index. We leverage this within-couple variation later as a proxy for disagreement and communication frictions within the couple. There are limited studies looking at disagreement on marital satisfaction within couples. However, such disagreement has been found to correlate with a higher likelihood of divorce (Gager and Sanchez, 2003).

Table 1 also shows that the control and treatment groups are balanced in terms of background characteristics for both index and secondary spouses. The only statistically significant difference is that index spouses in the treatment group report slightly higher financial savviness, though the difference in means is economically small.

Table A3 shows the comparison of the demographic characteristics of the index spouses in our sample to the married, non-retired household heads in the Current Population Survey (CPS). The sample of index spouses is broadly representative of the married, non-retired household heads in the U.S. based on geography and employment status. The index spouses in our sample, on average, are younger, more educated and are more likely to be female–these are all patterns that tend to be observed in online samples. When we compare the weekly earnings of the index spouses in our sample to the household heads in the CPS, we observe that college-graduate index spouses

[6]The first question asks "Let's say you have $200 in a savings account. The account earns 10% interest per year. Interest accrues at each anniversary of the account. If you never withdraw money or interest payments, how much will you have in the account at the end of two years?". The second question asks "Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, how much would you be able to buy with the money in this account?". These questions have been widely used in the prior literature on financial literacy (Lusardi and Mitchell 2014).

TABLE 1: Demographic Characteristics of the Sample

	Index Spouse			Secondary Spouse		
	Control	Treated	P-Value	Control	Treated	P-Value
Female	0.59	0.58	0.92	0.41	0.43	0.51
White	0.88	0.89	0.66	0.86	0.88	0.24
Age < 45	0.55	0.53	0.51	0.53	0.49	0.21
Age 45–50	0.21	0.19	0.37	0.21	0.21	0.88
Age > 50	0.24	0.28	0.11	0.27	0.30	0.21
College degree	0.62	0.66	0.10	0.57	0.61	0.13
% Financial literate	0.29	0.32	0.24	0.29	0.32	0.18
Perception of own financial savviness	5.15	5.32	0.04	4.97	5.07	0.24
Perception of spouse's financial savviness	4.78	4.94	0.05	5.21	5.35	0.10
Marital Satisfaction Index	–0.10	–0.04	0.22	0.01	0.07	0.26
Observations	492	1,727		492	1,727	

Note: Financial literacy is defined based on having the two financial questions included in the survey correct. There are four questions that ask participants to self-evaluate their relationship with the spouse in the survey. Marital satisfaction is an index created by the sum of the standardized values for these 4 questions. Financial savviness is measured with a 7-point Likert scale.

earn slightly more than their CPS counterparts while those without a college degree earn slightly less than the household heads in the CPS. One potential reason for the discrepancies we note between the two samples is the additional restriction of not earning any Social Security income in our sample. Unfortunately, we do not have information on this for the respondents in the CPS.

2.3 Survey Design

We describe the Social Security expectations module and information treatment here. The questionnaire and some screenshots can be found in Appendix B.

The **index spouse**'s module started with a series of introductory questions regarding the percent chance of both themselves and their spouse being eligible to receive Social Security benefits, and from which record these benefits would be claimed. The module proceeded in the following stages (for a visual depiction, see Figure B1):

Stage 0: Index spouse baseline Social Security expectations. Respondents answered several Social Security-related expectations. This includes expected behaviors: the expected retirement age, the percent chance of working full-time, part-time or not working at age 67, and the expected Social Security benefit claiming ages for themselves and their spouse. It also includes own and spouse's expected benefits conditional on claiming at their expected claiming age, and at age 62, 67 and 70 (e.g., *If you were to retire at age 67 and collect benefits, on average, how much do you expect the monthly payments to be in today's dollars?*; see Figures B2 and B3). For the expected claiming age and benefits, respondents were further asked a density of their beliefs. This involved indicating the likelihood of claiming within specific age ranges, or the benefits falling within designated intervals, as a way of measuring uncertainty in beliefs.

Stage 1: Information on own Social Security benefits to index spouses. Respondents in the treatment group were presented with a table showing their projected Social Security benefits if they were to claim at ages 62, 67 or 70. These projections are derived based on the earnings they

reported, utilizing a formula similar to the one used by the SS Quick Calculator.[7] The screen also looks similar to what individuals can see when consulting the Quick Calculator. Respondents in the control group were provided a placebo information on men's soccer around the world (see Figure B5).

Stage 2: Index spouse midline Social Security expectations. Respondents were asked the same set of expected behaviors as in stage 0. They were also asked their expected benefits for own and spouse conditional on claiming at their (potentially updated) expected claiming age, and conditional on claiming at age 67 (if different from expected claiming age).

Stage 3: Information on spouse's Social Security benefits to index spouses. Respondents in the treatment group were presented with a table showing the projected Social Security benefits for their spouse with a claiming age of 62, 67, and 70. These estimates were derived from the earnings reported by the respondent for their spouse, utilizing the SS Quick Calculator formula. The display featured the spouse's benefits at the top and, as a reminder, the identical table from stage 2 at the bottom of the screen (for example, see Figure B4). Respondents in the control group were provided a placebo information on swimming in the Olympic games (see Figure B6).

Stage 4: Index spouse endline Social Security expectations. Respondents were asked the same set of questions as in stage 2.

After the index spouse completed the survey, the secondary spouse was invited to participate. The Social Security module for the **secondary spouse** commenced with identical introductory questions as those in the index spouse's questionnaire. Subsequent stages were more concise and followed this structure.

Stage 5: Secondary Spouse baseline Social Security expectations.[8] Respondents were asked the same set of questions as in the Index spouse Stage 0.

Stage 6: Information on own and spouse's Social Security benefits to secondary spouses. Half of the respondents in the treatment group (denoted by T1 in Figure B1) were presented with a table illustrating the projected Social Security benefits for themselves and their spouse with a claiming age of 62, 67, and 70. It is therefore similar to what the index spouse saw in the Index spouse Stage 3.[9] The other half of treated respondents (T2) were given the same information as T1 respondents but also information about their spouse's responses regarding when they said they expected to retire and claim benefits. This treatment is not analyzed in this paper, so we do not provide details.[10] Respondents in the control group were provided with placebo information on men's soccer around the world.

Stage 7: Secondary spouse endline Social Security expectations. Respondents were asked the

[7] The Social Security Quick Calculator (SS Quick Calculator) is available online and provides a projection of Social Security benefits after users input their date of birth and earnings in the current year: https://www.ssa.gov/OACT/quickcalc.

[8] This is Stage 5 of experiment when viewed at the couple level. Otherwise, this is the first stage for the secondary spouse.

[9] The only difference is that the projected benefits rely on the secondary spouse's reported earnings to estimate their own benefits, and the index spouse's reported earnings to estimate the spouse's benefits. This ensured higher accuracy of the forecast.

[10] The empirical analysis will still use the stage 5 responses of these secondary spouses.

same set of questions as in stage 5.

On average, index spouses took 38.6 minutes to complete the survey (median: 33 minutes), while the secondary spouses took 28.6 minutes (median: 23 minutes).

2.4 Summary Statistics of Social Security Expectations

Table 2 displays the summary statistics for monthly Social Security expectations reported by index spouses at baseline (Stage 0). On average, respondents expect their own benefits to be $2,346 if they were to claim age 67, while the age 67 expected benefits for their spouse is $2,227. According to the SS Quick Calculator, the average predicted benefit for index spouses is $2,036. For both their own and their spouse's benefits, around 45% of respondents overestimate their age 67 benefits, while about half underestimate them. The remaining 5% of respondents report benefit expectations within $50 of the SS calculator prediction.

TABLE 2: Social Security Expectations at the Baseline (Stage 0)

	Index Spouse			
	All	Control	Treated	P-Value
Expected own age 67 benefits ($)	2345.9	2227.5	2379.6	0.15
Share overestimating	44%	44%	45%	0.71
Share underestimating	49%	49%	49%	0.80
Expected age 67 benefits for the spouse ($)	2270.7	2279.3	2268.2	0.91
Share overestimating	45%	47%	44%	0.24
Share underestimating	50%	47%	50%	0.17
Predicted age 67 benefits by the SSA calculator ($)	2036.5	2010.0	2044.1	0.51
Absolute gap in own age 67 benefits ($)	1209.2	1162.5	1222.6	0.38
Spouse's predicted age 67 benefits by the SSA calculator ($)	1930.7	1876.3	1946.2	0.15
Absolute gap in spouse's age 67 benefits ($)	1210.6	1198.0	1214.1	0.81
Observations	2,219	492	1,727	

Note: The table shows the average expected benefits of the index spouses. In the bottom panel of the table, absolute gap is defined as the absolute value of the difference between the predicted benefits by the SS Quick calculator and the benefit expectations of the respondent.

In the bottom panel of Table 2, we show how respondents' expectations are different from the age 67 benefit amounts predicted by the SS Quick Calculator. For both own and spouses' benefits, the absolute gap (i.e.; the absolute value of the difference between the benefits predicted by the SS Quick Calculator and the respondent's expected benefit) is sizable and amounts to an average of $1,210. Note that, the calculator might not be giving the most accurate prediction if the individuals have private information about their past or future work behavior.

We also examine the distribution of the perception gap between the prediction of age 67 benefits by the SS Quick Calculator and the respondents' age 67 benefit expectations (for themselves and for their spouses, separately) as a share of the prediction by the SS Quick Calculator in Figure A1. We find that index spouses' average perception gap in own age 67 benefits is -8.3% (i.e., an average overestimation of benefits by 8.3 percent) and the average gap in spouse's age 67 benefits is -7.3%. However, the distributions of gap for own and spouse's benefits are both highly dis-

persed: for example, 20% of index spouses overestimate their age 67 benefits by at least 50% and 19% of index spouses underestimate their age 67 benefits by at least 50%. Overall, these sizable gaps suggest potential lack of knowledge about the Social Security system.

Appendix Table A4 further illustrates how the absolute perception gap varies across different characteristics. There is no gender difference. Older and more financially-literate index spouses tend to have smaller absolute perception gaps. Similarly, those without a college degree or in households with below-median earnings also show smaller absolute gaps, possibly because Social Security benefits represent a more critical resource for them.

3 Correlation of Spousal Expectations: Descriptive Evidence

In this section, we describe the alignment in spousal expectations for the same outcome within couples in the control group. We focus on expectations for age 67 benefits, since that is the full retirement age; results are qualitatively similar when we analyze benefit expectations for other ages. This analysis serves as a motivation for the information intervention.

3.1 Social Security Benefits Expectations

We begin by examining the histogram of the distance between spouses' age 67 benefit expectations for the same spouse, presented in Figure 1a. Specifically, we compute the distance:

$$\text{Spouse A's exp about A's benefit} - \text{spouse B's exp of spouse A benefit.} \tag{1}$$

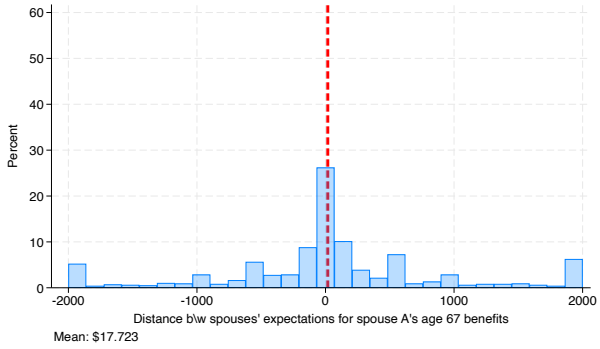
The distribution is nearly symmetric around zero, resulting in an average difference of approximately \$18 between spouses' benefit expectations for the same spouse. However, the variation is substantial, with a standard deviation of \$1,540. Around 35% of respondents have distance within the $[-\$100, 100]$ range and 55% of the couples have an absolute distance of over \$200. Furthermore, the average absolute difference is \$830. This significant disparity in spouses' expectations for the same outcome suggests that within-couple expectations may not be perfectly aligned, potentially indicating (communication or information) frictions within households.

In Figure 1b, we plot the binscatter of spouses' expectations for the same spouse's age 67 benefits. The correlation between spouses' expectations is 0.68, which is statistically different than 1. This slope provides further descriptive evidence against the equality of expectations within a couple. When we restrict the sample to couples with benefit expectations below \$4,000,[11] to reduce the effect of outliers on the slope of this relationship, we find that the correlation is largely unchanged at 0.66. We present a similar exercise for spouses' expectations for Social Security wealth of the couple, which we define as the sum of the age 67 benefits of the spouses within a couple,

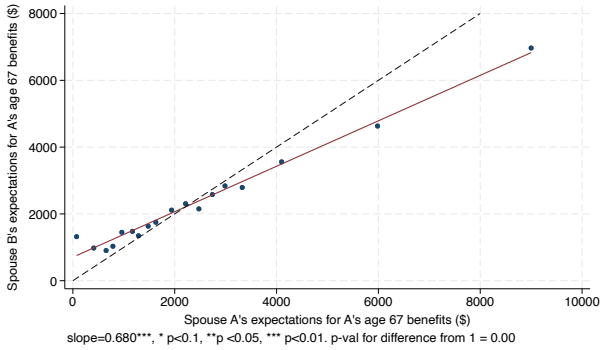
[11]The maximum monthly age 67 Social Security benefits in the U.S. in 2023 were \$3,627, while the average benefit was \$1,706.

FIGURE 1: Within-Couple Expectations for Age 67 Benefits

(A) Distance between spouses' benefit expectations



(B) Correlation between spouses' benefit expectations



Note: The dashed red line in the left panel shows the mean of the distance between age 67 benefit expectations for the same spouse. Both panels only use data for control group couples. For ease of exposition, in the first panel we winsorize the distance at -2000 and 2000, but report the mean of the unwinsorized distance. The right panel shows a binned scatter plot of both spouses' expectations for the same spouse's age 67 benefits.

in Appendix Figure A2. Here, we find the within-couple correlation in expectations to be 0.74, slightly larger than the correlation in benefit expectations. Once again this correlation is statistically different than 1, providing evidence against the equality of expectations within a couple.

But how should this correlation be interpreted—high or low? To contextualize, we compare it to a scenario where couples are randomly matched based on the observed patterns of assortative matching in our sample. Assortative matching could contribute to the observed correlation, as individuals with similar characteristics may naturally hold similar expectations, even without direct communication. When we simulate random matching of secondary spouses to primary spouses using key characteristics (gender, age, education, and employment status), we find a correlation of just 0.1 in expectations (Appendix Figure A3). This stark contrast suggests that the observed correlation is far higher than what assortative matching alone would predict, indicating that some degree of information sharing does occur within households.

Even in the absence of any frictions, there are several reasons why the correlation in spouses' expectations may be imperfect. One possible explanation is that respondents report their beliefs with measurement error, which would naturally reduce the correlation to below 1. To assess whether this is the case, we perform an exercise where we assume both spouses have the same expectations, but that one spouse reports beliefs with a classical measurement error (distributed normally with mean zero and standard deviation σ) while the other spouse reports beliefs without any errors. In this setup, the σ that would generate the correlation of 0.68 we observe in the data is \$730, which implies that 32.7% of the average expected benefits (\$2,227.5) or the 35% of the median belief (\$1,700) has to be noise in order to generate a correlation of 0.68. If we assume both spouses report beliefs with classical measurement error and their errors are drawn from the same distribution, the σ that would generate the correlation of 0.68 we observe in the data is \$659. To put these numbers in context, we check the test-retest correlation in expectations of the control group between Stage 0 and Stage 4. We find a correlation of 0.89, which would imply a σ of \$347

if we followed the same steps. Given the difference in the magnitude of σs in these two cases, we conclude that measurement error is unlikely to be the sole driver of this imperfect alignment. Moreover, it is important to note that the observed correlation of 0.68 for spouses' Social Security benefit expectations is statistically different from the test-retest correlation of 0.89 in the control group.

Lastly, these misperceptions persist even among couples who accurately perceive their spouse's earnings, a key determinant of future Social Security benefits. Among the control group, the correlation between spouses' beliefs about one spouse's earnings is 0.76. When we restrict our sample to couples with accurate earnings perception (i.e., those with no difference in perceptions of household earnings and actual household earnings, representing 46.5% of our sample), the correlation in Social Security benefits expectations remains at 0.73. Again, this correlation is still statistically different than 1 (and from 0.89), further indicating misalignment in expectations even among couples with accurate earnings perceptions (see Appendix Figure A4).

Another mechanism that would generate imperfect correlation in spouses' expectations is specialization within the household. If one spouse makes all the financial and economic decisions of the household, it would be natural for spouses to have different expectations for the same outcomes.[12] However, our analysis of within-couple correlations of Social Security wealth, presented as a heat map in Figure 2, suggests a different story. Here we define Social Security wealth as the sum of two spouses' monthly benefits. Specifically, we assign each spouse a decile based on the size of their perception gap regarding Social Security wealth (i.e., the gap between their expected Social Security wealth and the Social Security wealth predicted by the calculator). The figure reveals that most couples cluster along the 45-degree line, indicating a high degree of correlation in their perception gaps. This finding implies that specialization within the household is unlikely to explain the observed discrepancies. In addition, the heat map suggests that "errors" might be amplified within couples, making some couples particularly vulnerable by having both members over or under-estimating their Social Security wealth.

3.2 Heterogeneity

Having established that the imperfect correlation is unlikely due to measurement error or specialization-based explanations, we next conduct heterogeneity analysis, to provide some suggestive evidence on the underlying drivers of the frictions.

In Panel A of Table 3, we find higher correlation in Social Security wealth expectations among more educated couples and those with above-median earnings. It is possible that reduced financial stress facilitates communication. Couples where both spouses are under 55 show a higher correlation in expectations, which contrasts with the idea that older couples closer to retirement would have more frequent discussions on the topic.

[12] Investing in financial knowledge can be viewed as a deliberate choice, analogous to other forms of human capital investment (Lusardi et al., 2017).

FIGURE 2: Correlation in spouses' perception gaps about Social Security wealth of the couple



TABLE 3: Heterogeneity in the correlation of spouses' Social Security wealth expectations

	Corr in Exp in SS wealth	p-value of difference from 1	p-value of differences across groups
Overall	0.740***	0.00	
Panel A			
Both spouses below age 55	0.740***	0.00	
At least one spouse above age 55	0.674***	0.00	0.06
Couple below-median earnings	0.496***	0.00	
Couple above-median earnings	0.742***	0.00	0.00
At least one spouse no college	0.609***	0.00	
Both spouses have college degrees	0.748***	0.00	0.01
Panel B			
At least one spouse below-median marital sat.	0.670***	0.00	
Both spouses above-median marital sat.	0.795***	0.00	0.00
More agreement in marital sat.	0.760***	0.00	
Less agreement in marital sat.	0.685***	0.00	0.15
Couple below-median marital length	0.707***	0.00	
Couple above-median marital length	0.766***	0.00	0.15

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, show the statistical difference of the correlations from 0. The last column shows the p-value of the differences in the correlation in spouses' expectations for couple's Social Security wealth across the mutually exclusive groups, as defined in the first column.

Panel B examines marital quality and duration. Couples with above-median marital satisfaction have more aligned expectations, as do those with lower disagreement about their relationship quality and longer marriages, albeit weakly. This suggests that communication frictions may contribute to imperfect alignment in couples' beliefs. In section 4, we will investigate this directly using a randomized information experiment.

3.3 Correlations in Expectations for other Decision-relevant Outcomes

We now show that the imperfect within-household correlation is not unique to Social Security benefit expectations, but extends to expectations of other decision-relevant variables as well. Our survey measures expectations about the year-ahead unemployment rate, interest rates, stock prices, inflation, and housing prices. Additionally, we measure household-level expectations such as household spending and income growth over the next 12 months. Table 4 shows that misaligned expectations are not specific to Social Security benefits and the equality of expectations is, in fact, rejected for other aggregate and household-related expectations as well. The correlations in spouses' other expectations range from 0.46 to 0.64 and that they are all statistically different than 1 (and from 0.89 which is the test-retest correlation for Social Security benefit expectations in the control group).

TABLE 4: Correlation in spouses' other decision-relevant expectations

	Corr in Expectations
Unemployment rate higher	0.546***
Interest rate higher	0.464***
Stock Prices higher	0.509***
Inflation	0.388***
Household income growth	0.639***
Household spending growth	0.533***
Tax payment growth	0.631***
National home price growth	0.587***

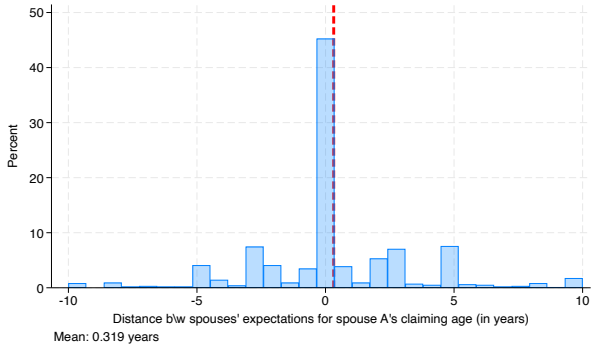
Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, show the statistical difference of the correlations from 0. All correlations are also statistically different from 1 (p-val=0.00 for all rows). Unemployment rate higher, interest rate higher and stock prices higher denote the probabilistic expectations for the U.S. unemployment rate, average interest rate on savings account and average stock prices in the U.S. stock market being higher 12 months from now, respectively. Inflation refers to the 12-month ahead inflation expectations, national home price growth refers to the 12-month ahead expected average home price growth in the U.S. and household income and spending growth expectations refer to the 12-month ahead nominal household income and spending growth expectations. All expectations are elicited as point forecasts.

We further examine one particular type of expectation which is relevant to our study: expected Social Security claiming age. Respondents were asked at what age they expect to claim Social Security benefits, and at what age they expect their spouse to claim. The timing of claiming is an important choice variable for financial well-being in retirement, since delaying claiming increases monthly benefits up to age 70. Index spouses, on average, expect to claim at age 66.5, and 16.7% expect to claim at age 67. They expect their spouse to claim at age 66, on average.

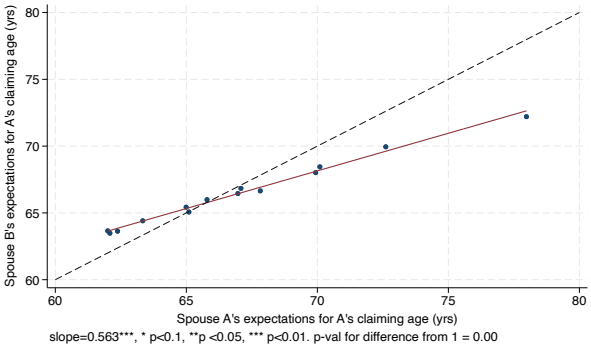
We depict the agreement in expected claiming age in the control group in Figure 3, showing the distance between spouses' expected claiming age of the *same* spouse (Panel A) and the binscatter (Panel B). The left panel highlights the misalignment in expectations about claiming ages, with approximately 67% of couples having different expectations and 38% diverging by more than two years. Panel B shows that the overall correlation is 0.56, and again statistically different than 1.

FIGURE 3: Distance between spouses' expected claiming age

(A) Distance between spouses' expected claiming age



(B) Correlation between spouses' claiming age



Note: The figure shows the difference between spouses' expected claiming age for the same spouse in the control group. The dashed red line denotes the mean distance in the control group. For ease of exposition, we cap the histogram at -10 and 10 years.

4 Information Spillovers Based on a Randomized Experiment

So far, we have shown that (1) individuals are not fully informed about Social Security benefits, and (2) expectations about Social Security benefits for a given spouse are not fully aligned within couples. The descriptive patterns in section 3 suggest that some within-couple barriers (such as information frictions) may be partly responsible for this misalignment.

In this section, we investigate this directly using an information experiment. Our main goal is to see whether information randomly provided to the index spouse spills over to the secondary spouse, and to investigate the drivers of this transmission. The section concludes with a detailed heterogeneity analysis.

4.1 Conceptual Framework

We first present a simple conceptual framework to illustrate how expectations are updated within a couple following the provision of information to one spouse. For ease of exposition, we focus solely on the stage 1 information provision, and on expectations about the index spouse's Social Security benefits.

Consider the index spouse i and the secondary spouse s in couple c. The couple is assigned to either the information treatment group T or the control group C. At Stage 0, the index spouse holds prior beliefs $B_{ic(J)}^{\text{stage 0}}$, for $J = \{T, C\}$ regarding their future Social Security benefits, while the secondary spouse holds beliefs $B_{sc(J)}^{\text{stage 0}}$, for $J = \{T, C\}$ about their spouse's Social Security benefits.

At stage 1, the index spouse in the treatment group receives a signal $Signal_{ic(T)}$ about their future Social Security benefits (i.e., the predicted benefits according to the SS Quick Calculator). In a typical belief-updating framework, the posterior belief, measured at stage 2, is a weighted

combination of the prior belief and the new signal:

$$B_{ic(T)}^{\text{stage 2}} = (1-\gamma)B_{ic(T)}^{\text{stage 0}} + \gamma Signal_{ic(T)}. \tag{2}$$

The parameter γ represents the weight put on the signal, where $\gamma \in [0,1]$. $\gamma = 0$ implies no learning, while $\gamma = 1$ implies full updating to the provided signal. Under Bayesian learning, γ is a function of the precision of the prior and the signal.

The index spouse in the control group receives a signal unrelated to their Social Security benefits so does not revise their beliefs about their future Social Security benefits:

$$B_{ic(C)}^{\text{stage 2}} = B_{ic(C)}^{\text{stage 0}}. \tag{3}$$

To measure how close beliefs are from the signal, we define the absolute perception gap as follows:

$$PG_{ic(J)}^{\text{stage 2}} = \frac{|B_{ic(C)}^{\text{stage 2}} - Signal_{ic(J)}|}{Signal_{ic(J)}} \quad J \in \{C,T\}, \tag{4}$$

where $Signal_{ic(T)}$ is the signal received by the index spouse in the treatment group. $Signal_{ic(C)}$ is the hypothetical signal index spouses in the control group would have received about their Social Security benefits had they been in the treatment group.

We test whether the treatment group's Social Security benefit beliefs align more closely with the signal than the control group's by comparing the absolute perception gaps. Specifically, we exploit within-person variation between stages and focus on changes in the perception gap to test the following hypothesis:

Hypothesis 1: $PG_{ic(T)}^{\text{stage 2}} - PG_{ic(T)}^{\text{stage 0}} = PG_{ic(C)}^{\text{stage 2}} - PG_{ic(C)}^{\text{stage 0}}$.

In our design, we also provide additional information at stage 3 and re-measure beliefs at stage 4. Thus, we will also test a similar hypothesis to assess the revision in perception gaps from stage 4 to stage 2.

While Hypothesis 1 focuses on the revision in the index spouses' beliefs, our primary interest lies in how information may spill over to the secondary spouse. Upon receiving their signal, the index spouse i in the treatment group may decide to communicate some information $Info_{ic(T)}$ to their spouse s. This communicated information could be either the signal she received or her updated posterior belief. We flexibly model it as follows:

$$Info_{ic(T)} = f(B_{ic(T)}^{\text{stage 4}}, Signal_{ic(T)}). \tag{5}$$

Information sharing may not be complete due to cognitive or communication frictions. The secondary spouse may then update their original prior beliefs $B_{sc(T)}^{\text{stage 0}}$ just before stage 5 (when we measure baseline beliefs for the secondary spouses). Their stage 5 beliefs can thus be written as:

$$B_{sc(T)}^{\text{stage } 5} = d_{ic(T)} \left[(1-\delta) B_{sc(T)}^{\text{stage } 0} + \delta Info_{ic(T)} \right] + (1 - d_{ic(T)}) B_{sc(T)}^{\text{stage } 0}, \tag{6}$$

where $d_{ic(T)}$ is an indicator that equals 1 if the index spouse i shares information with their partner s, and zero otherwise, and δ is the weight put by the secondary spouse on the information provided by the index spouse.

To test the hypothesis that there is spillover of information from the index spouse to the secondary spouse, we will compare the secondary spouse stage 5 beliefs in the treatment and the control groups. More precisely we will test for equality in their perception gap:

Hypothesis 2: $PG_{sc(T)}^{\text{stage } 5} = PG_{sc(C)}^{\text{stage } 5}$.

As we will show below, we find evidence that secondary spouses in treated couples have smaller perception gaps, on average, than those of their counterparts in control couples at stage 5, the first time we interview them: specifically, they are closer to the information that was given to the treated index spouses. This, in itself, is direct evidence of spillovers.

Note that no spillover may arise if the index spouse does not share any information or shares it with a large error ($d_{ic(T)} = 0$), and/or if the secondary spouse fully discounts the information provided by their spouse ($\delta = 0$). Standard economic theory suggests that the index spouse is more likely to share information when it is valuable and there are greater gains from sharing. In our context, the primary benefits of sharing arise when the information can be used to re-optimize decisions related to saving and labor force participation. However, information-sharing may be less likely if there are associated costs. These costs may be psychological (e.g., the conversation could trigger conflict), temporal (e.g., it may take time to engage in the discussion), or cognitive (e.g., the complexity of the information may make it harder to explain or understand). Furthermore, strategic motivations may lead the index spouse to withhold information. For example, they may choose not to disclose negative news about their future benefits to preserve their bargaining power within the relationship. Some of these themes emerge in the qualitative data that we collected as open-ended questions in a follow-up survey; these are discussed in section 4.4.2. Finally, the secondary spouse may in turn discount some or all of the information provided by the index spouse for several reasons. They may question the accuracy of the information or distrust their spouse's financial knowledge or interpretation.

To explore these dynamics further, we conduct heterogeneity analysis of the spillover effects below to better understand what drives information spillovers in some couples but not others. Our aim is to provide novel evidence on which types of couples experience greater belief revisions by the secondary spouse, indicating stronger information spillovers. Identifying the separate contributions of $d_{ic(T)}$ and δ falls outside the scope of this paper.

4.2 Treatment Effect on Index Spouses' Social Security Benefits Expectations

We first investigate the causal effect of the information provision on belief-updating of the index spouse. Understanding this initial response is critical, as it serves as a necessary "first stage" to assess potential information spillovers to the secondary spouse. Without belief updates from the index spouse, it would be impossible to evaluate spillover effects. Our primary outcome of interest is the absolute perception gap, which quantifies the deviation of the index spouse's expectations from the information provided in the treatment, namely:

$$PG = \frac{|\text{Predicted benefits by the SS Calculator - Expected benefits}|}{\text{Predicted benefits by the Social Security Calculator}}. \tag{7}$$

We calculate this absolute perception gap for index spouses in both the treatment and control groups. In the control group, the predicted benefits are the ones that respondents would have received if they had been in the treatment group. A decrease in the absolute perception gap reflects a closer alignment of beliefs with the predicted benefits. We, therefore, focus on the revision in absolute perception gaps across the various survey stages, expecting a reduction in the absolute perception gap for treated respondents.

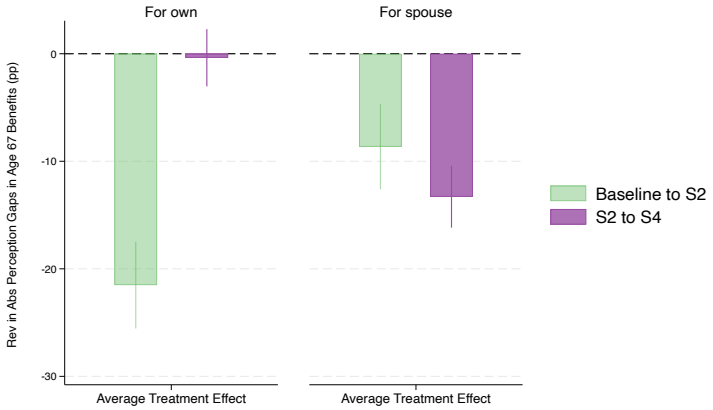
For index spouse i, we denote the revision of absolute perception gap between stage 0 and stage 2 by $\Delta PG_{i,2,0} = PG_{i,s2} - PG_{i,s0}$. We are interested in the absolute perception gap of a respondent for their own benefits ΔPG_i^{own} and those for their spouse ΔPG_i^{spouse}. We first examine the revision from stages 0 to 2 ($\Delta PG_{i,2,0}$) and then from stages 2 to 4 ($\Delta PG_{i,4,2}$); as shown in Figure B1, the former is the updating as a result of information about own Social Security benefits only, and the latter is the updating as a result of additional information about spouse's Social Security benefits. We estimate the following specifications:

$$\Delta PG^h_{i,s,s-2} = \eta_1 + \beta_1 T_i + \theta_1 X_i + \epsilon_i, \quad s \in \{2,4\}, h \in \{own, spouse\}, \tag{8}$$

where T_i is a dummy indicating if the index spouse i is in the treatment group, and X_i is a vector of index and secondary spouse's characteristics, including education, age, ethnicity, gender, and financial literacy. We use heteroskedasticity-robust standard errors. In equation (8), η_1 measures the mean revisions in the control group and soaks up any effects attributable to the mere act of taking the survey or of reporting expectations multiple times. The parameter of interest is β_1, which measures the treatment effect on the revision of the absolute perception gap.

Figure 4 displays the treatment effects for expected benefits conditional on claiming at age 67. In the left panel, the green bars represent the treatment effect for own expected benefits from stages 0 to 2, while the purple bars represent stages 2 to 4. The right panel illustrates the analogous treatment effects on index spouse's absolute perception gaps for the secondary spouse's benefits. The figure reveals considerable revisions to expectations in the treatment group. The left panel shows that the stage 1 information treatment (on own benefits) had a large and precise effect on the revision in the absolute perception gap for own benefits, with a reduction of 21.5 percentage

FIGURE 4: Treatment effect on index Spouse's absolute perception gaps



Note: The figure shows the average treatment effects from stage 0 to 2 (in green) and from stage 2 to 4 (in purple), estimated using equation (8), separately for index spouse benefits and secondary spouse benefits. The spikes on each bar show 95% confidence intervals. Appendix Figure A5 shows the average treatment effects from baseline (stage 0) to endline (stage 4). Appendix Table A5 presents the estimates.

points (green bar), or 39% of the baseline mean. However, the stage 3 information treatment (on spouse's benefits) shows no additional effect, with a treatment effect close to zero (purple bar). This is quite sensible: treated index spouses' expectations about their own benefits become more aligned with the provided information on own benefits, with no further revision upon receiving information on spouse's benefits.

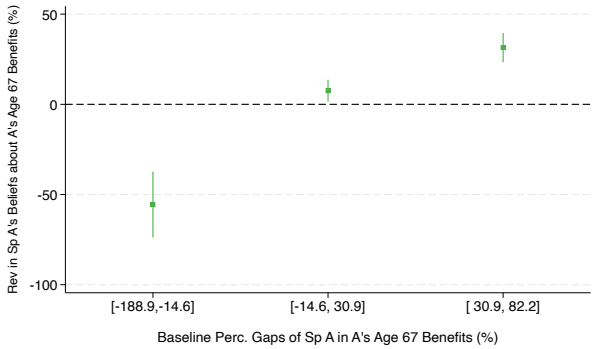
The right panel shows that the index spouses revise their beliefs about their spouse's benefits upon receiving information about both own and spouse's benefits. Although the stage 1 information treatment was about own benefits, it led a reduction of 8.7 percentage points or 16% of the baseline mean in the absolute perception gap for spousal benefits (green bar). This suggests that treated index spouses perhaps gain a more comprehensive understanding of the Social Security formula when initially learning about their own benefits. Moreover, the stage 3 information treatment specifically targeting spousal benefits leads to an additional reduction of approximately 13.3 percentage points or 24% of the baseline control mean. Consequently, the index spouses' expected benefits for their spouse become more closely aligned with the information provided. Overall, the revisions of absolute perception gap from stages 0 to 4 are of similar magnitude, about 22 pp, for own and spouse's expected benefits (Appendix Figure A5).

Figure 4 presents the average treatment effect (and Appendix Table A5 shows the corresponding estimates), but we anticipate heterogeneous treatment effects based on the baseline perception gap. Individuals with initial expectations lower (respectively, higher) than the provided information should update their expectations upward (respectively, downward). Figure 5 presents the treatment effect for the (Stage 4 - Stage 0) revision in index spouse's beliefs as a function of the baseline perception gap. As anticipated, index spouses who initially overestimated (negative perception gap) adjusted their beliefs downward (average treatment effect of -56 percentage points

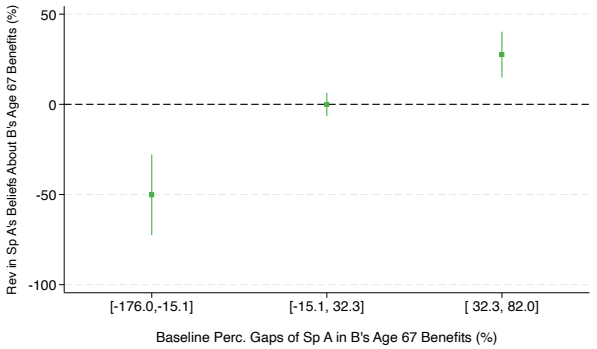
for own benefit expectations). Conversely, those who initially underestimated (positive perception gap) updated their beliefs upward, with a treatment effect of +31 pp for own Social Security benefit beliefs. There is a treatment effect of essentially zero for individuals whose baseline beliefs were already closely aligned with the provided information. Overall, the updating patterns are consistent with index spouses responding to the informational content in the signal that is given to them.

FIGURE 5: Heterogeneity in the treatment effect on index spouse's benefit expectations, by terciles of baseline perception gaps

(A) Expectations about own age 67 benefits



(B) Expectations about spouse's age 67 benefits



Note: The figure shows the average treatment effects (from baseline to endline) interacted with terciles of baseline perception gaps, estimated using equation (8), separately for index spouse benefits and secondary spouse benefits. The spikes show 95% confidence intervals. Appendix Table A6 shows the average treatment effects interacted with terciles of the baseline perception gaps separately from stage 0 to 2 and from stage 2 to 4.

Appendix Figure A6 explores the heterogeneity in the treatment effect for index spouses for own benefit expectations based on observable characteristics (Appendix Table A7 shows the corresponding estimates). For this analysis, we estimate equation (8) for different subsamples with the relevant characteristics. A more negative estimate suggests a larger decline in the absolute perception gap (that is, a larger treatment effect as the expectation becomes more aligned with the provided information). Looking across the various subsamples, we see that that the estimate is less negative (i.e., a smaller treatment effect) if the index spouse is in a couple where at least one spouse is above the age of 55 or if the couple's total earnings are below median. This may be due to these groups being better informed (see Appendix Table A4).

We see that the estimates are more negative (i.e., larger treatment effects) if the index spouse trusts the information or is the financial decision-maker in the household, or if they are negatively surprised (i.e., they learn that their benefits will be lower than what they had expected). While none of these patterns are significant at conventional levels, they are quite sensible.

4.3 Information Spillover to Secondary Spouses

Our sequential survey design allows us to investigate whether information spills over to the secondary spouse. Specifically, we compare the *stage 5* beliefs of secondary spouses for treatment

and control groups. This stage corresponds to the first elicitation of expectations from the secondary spouse, as highlighted in orange in the study design shown in Figure B1.[13]

For a secondary spouse s in couple c with an absolute perception gap PG_{sc} and demographic characteristics X_{sc}, we run the regression:

$$PG_{sc} = \eta + \beta T_c + \theta X_{sc} + \epsilon_{sc}, \tag{9}$$

where T_c is a dummy indicating if a couple was treated (that is, the index spouse in the couple received information), and X_{sc} is a vector of individual/couple-level characteristics, including education, age, ethnicity, gender, financial literacy and numeracy skills of both spouses. We use heteroskedasticity-robust standard errors. The parameter of interest is β. In the absence of spillovers, this will be zero. In the presence of spillovers, we expect this to be negative: that is, we expect the absolute gaps of secondary spouses in treated couples to be smaller than those of secondary spouses in control couples.

Table 5 shows the estimates of this regression. The dependent variable in the first two columns is the absolute perception gap in percentages for secondary spouse's beliefs about index spouse's and own benefits, respectively. We see that baseline (i.e., Stage 5) perception gaps of secondary spouses in treated couples are smaller by about 10 to 13 percentage points in both cases. Given that the baseline absolute perception gaps of control secondary spouses is about 53 percent, this is a sizable decline.

TABLE 5: Information spillovers to the secondary spouse

	Percents		Dollars	
	(1)	(2)	(3)	(4)
	Index Sp Ben.	Sec Sp Ben.	Index Sp Ben.	Sec Sp Ben.
Treated Couple	-12.8^{***}	-10.4^{***}	-320.7^{***}	-283.0^{***}
	(2.5)	(2.8)	(67.1)	(73.7)
TE as % of CG Abs PG	-24.2	-20.0	-27.1	-24.0
Demog. Controls	✓	✓	✓	✓
Control Dep. Var Mean	52.8	52.2	1183.2	1180.1
Adj. R-Squared	0.0	0.1	0.1	0.1
Observations	1,824	1,824	1,824	1,824

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in the first two columns is the absolute perception gap of the secondary spouse in index spouse's or their own age 67 benefits as share of the predicted benefits by the SS Quick Calculator. The dependent variable in the last two columns is the the absolute perception gap of the secondary spouse in index spouse's or their own age 67 benefits in dollars. Demographics include the ethnicity, education, gender, age group, financial literacy and numeracy for both the index and the secondary spouses.

The average decline of 10 to 13 percentage points is especially notable, given that the mean revision of the absolute perception gap for index spouses is about 22 percentage points (Appendix Figure A5). The estimate suggests that nearly half of the treatment is transmitted to the secondary

[13] For this exercise, we also use the respondents assigned to T2, since this analysis uses only stage 5 beliefs.

spouse, indicative of significant sharing of information within couples.

This estimate is likely biased downwards since survey beliefs are likely reported with error. In a simulation exercise, we find that the spillover would be much higher (equivalent to 82% of the index spouse treatment effect) if there was full information-sharing and beliefs were reported with measurement error, suggesting that the incomplete sharing of information between spouses cannot be fully explained by measurement error alone.[14]

4.4 Heterogeneity in Spillovers

Next, we explore the heterogeneity in spillovers within couples to better understand which types of couples experience larger information spillovers.

4.4.1 Heterogeneity Analysis

Figure 6 presents the heterogeneity analysis for the index spouse's expected benefits, with corresponding regressions in Appendix Tables A10-A14, panel A. As before, a larger negative treatment effect on the secondary spouse baseline perception gap indicates greater spillovers. Appendix Figure A7, focusing on spillovers about the secondary spouse's benefits, shows overall similar patterns.

Value of Information: Standard economic theory suggests that valuable information is more likely to be shared. We explore whether information spillovers are greater in couples for whom the information holds higher value. We begin by considering treatment-related factors. Panel A of Figure 6 investigates heterogeneity by whether the index spouse finds the provided information credible.[15] About 60% of the index spouses find the information credible. Such individuals are precisely the ones who are leading to spillovers: in such couples, the perception gap is lower by more than 18 percentage points versus by less than 4 percentage points for their counterpart couples. Additionally, spillovers are twice as large among couples where the index spouse's initial beliefs were less accurate (i.e., further from the predicted benefits presented), and for whom we expect the information to be more useful. The pattern and magnitude are the same for spillovers regarding the secondary spouses' benefits (see Figure A7).

Next, we explore the characteristics of couples for whom the information is likely more valuable — particularly those less familiar with the topic and with more time to adjust their savings or labor force participation, such as couples farther from retirement. Indeed, the figure shows that

[14]To assess the potential role of measurement error, we assume full information-sharing between spouses but that expectations are reported with errors. We first assume the secondary spouses' stage 5 expectations are equal to the index spouses' stage 4 expectations, but that they are reported with classical measurement error, modelled as normally distributed with a standard deviation of $357, which corresponds to the standard deviation of the test-retest classical measurement error of the control index spouses as discussed in Section 3. We re-estimate equation (9) with these simulated data, obtaining a substantially larger treatment effect. The results are presented in Appendix Table A9.

[15]The question was: "On a scale of 1 to 5 (where 1 is "Not At All" and 5 is "Fully""), how much do you trust this information?" An index spouse who selects 4 or 5 on this scale is coded as having found the information credible.

spillovers are primarily driven by couples under the age of 55, where the perception gap is lower by 14 percentage points. Additionally, the information on the index spouse's benefits is more valuable when both partners intend to claim on the index spouse's record. As expected, spillovers are nearly 50% larger when the secondary spouse plans to claim on the index spouse's record.[16] One might also expect larger spillovers in couples for whom Social Security wealth constitutes a larger share of total net worth; however, we find no evidence of this.

Overall, this aligns with the theoretical argument that information with higher perceived value is more likely to spill over from one spouse to the other.

Strategic Motivations: We next explore whether strategic motivations play a role in how information is shared. This relates to a literature, primarily from low-income countries, on the strategic concealment of information from spouses (e.g., Chen, 2013; de Laat, 2014; Ashraf, 2009). In situations of asymmetric information, there is typically a trade-off between maximizing individual gains and maximizing overall efficiency. In our context, an individual might seek to maximize personal utility by concealing information that weakens their bargaining position within the couple (e.g., discovering their own Social Security benefits are lower than expected, or their partner's benefits are higher).[17] However, withholding such information can be inefficient. For instance, sharing negative income shocks (e.g., that their own or their spouse's benefits are much lower than they had expected) may be beneficial, as failing to re-optimize the couple's choices in light of this information could have significant costs (especially when utility over consumption is concave). In contrast, the cost of not re-optimizing is lower if the new information is positive (e.g., that benefits are higher than expected).

The first two cuts in Panel B of Figure 6 investigate if the nature of spillovers differs by whether the index spouse received positive news (i.e., learning their predicted Social Security benefits are higher than their expectations) or negative news about their benefits. We find significantly larger spillovers when the news about the index spouse's benefits is negative. Similarly, spillovers are also greater when the index spouse learns negative information about their partner's Social Security benefits. The reduction in perception gap is about 17-18 percentage points for negative news as opposed to 7-8 percentage points for positive news. These patterns are consistent with efficient sharing of information within the household, where individuals are more likely to share when the cost of not re-optimizing decisions is higher.

To further test for the strategic motivations, we compare spillovers between more equal and less equal couples–specifically, whether both spouses are working or if there is a large difference in earnings. The rationale is that income or labor market differences between partners may proxy for differences in bargaining power within the household (Lundberg and Pollak, 1996), potentially leading to greater motivation to hide in less-equal couples. However, we find no significant

[16] While the difference in Panel A has a p-value of 0.12, the difference becomes statistically significant when we focus on spillovers related to the secondary spouse's benefits in cases where the index spouse intends to claim Social Security benefits based on the secondary spouse's record.

[17] Conversely, they might be more likely to share information that strengthens their position (e.g., that their own benefits exceed expectations or their partner's benefits fall short).

difference in information spillovers, suggesting that strategic motivations play a minimal role in sharing information about Social Security benefits.

Communication Frictions: Next, we examine potential costs that may hinder communication, such as psychological barriers (e.g., fear of starting a conflict, discomfort discussing financial topics, diverging interest). Panel C presents various analyses based on proxies for the absence of communication frictions within couples, such as agreement on the quality of their marital relationship, alignment in beliefs about total household earnings, and agreement on whether the index spouse handles financial decisions—factors that likely indicate regular and effective communication.

In each of the heterogeneity analyses in Panel C, spillovers are (weakly) larger when the couple is in agreement.[18] For example, the average reduction in the absolute perception gap of the secondary spouse is 18.6 percentage points in couples who are in more agreement regarding marital satisfaction versus 7.3 percentage points for those who are in less agreement. It is worth noting that the level of marital satisfaction is not a predictor of larger spillovers (see Panel E). This suggests that it is couples agreeing on the quality of the relationship (and not the quality level per se) that matters for information spillovers.

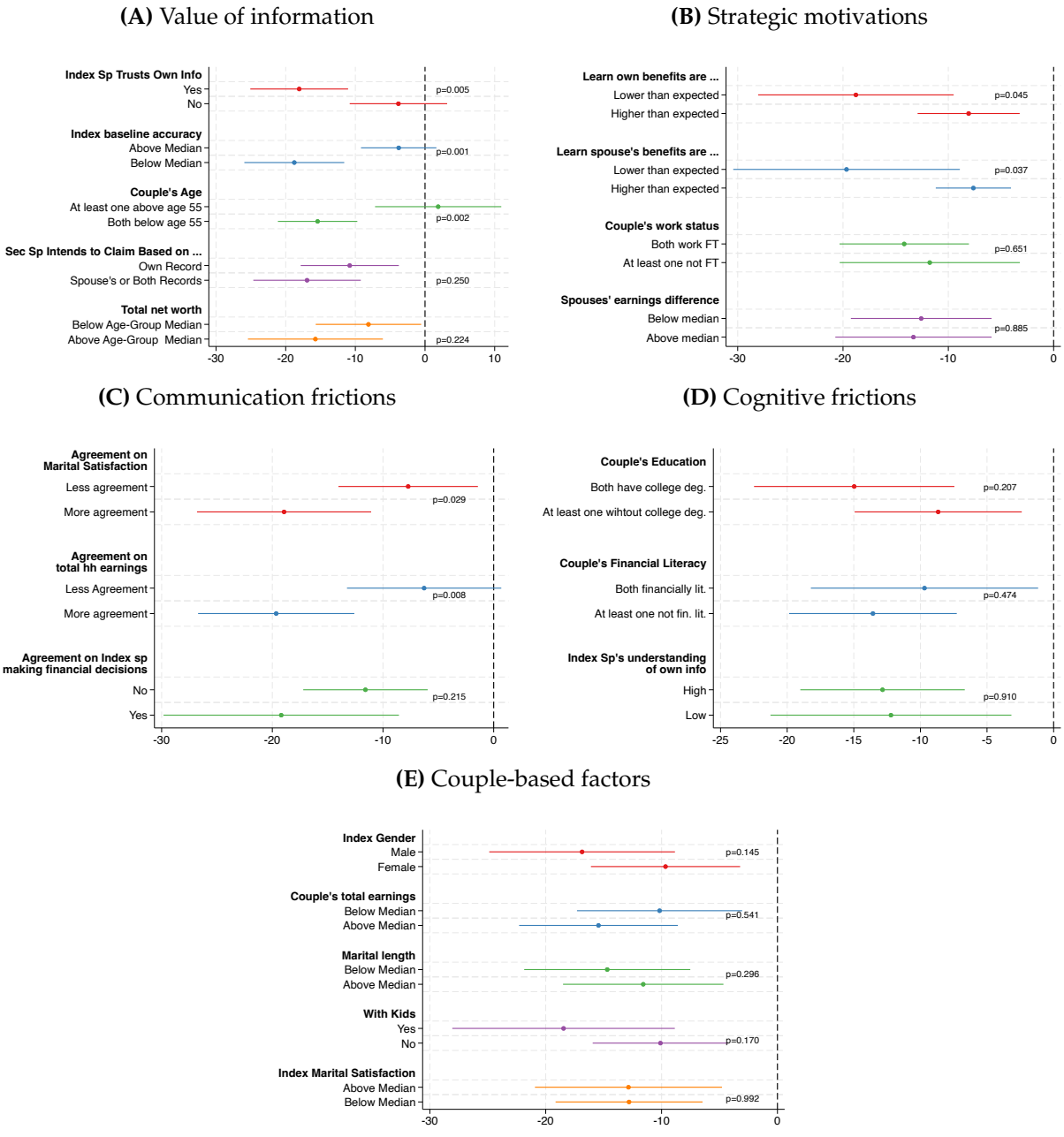
Cognitive frictions: We analyze potential cognitive costs, as the complexity of the Social Security system may pose challenges. Effective information transmission depends on the index spouse's ability to understand and communicate the information, and the secondary spouse's ability to process it. Couples with higher education or financial literacy are likely better equipped to handle this process.

Panel D of Figure 6 shows heterogeneity based on couples' education, financial literacy, and the index spouse's comprehension of the information, as measured by follow-up questions. Overall, there is little evidence that cognitive frictions significantly influence information spillovers, as no clear differences in treatment effects are observed across these groups.

Couple-based factors: We conclude our analysis in Panel E by investigating whether certain characteristics of the index spouse or couple influence information spillovers. Prior work has found evidence of larger spillovers in couples when the information is provided to the male (Conlon et al., 2022; Fehr et al., 2023). The first cut in Panel E shows only weak evidence of this in our context. While the spillovers are larger when the index spouse is male (a 16.1 percentage points reduction in the perception gap) versus female (9.3 percentage points), the difference is not statistically significant at conventional levels. Moreover, the spillovers are of the same magnitude for male and female index spouses when looking at the secondary spouse Social Security benefits, with average reduction of 11-12 percentage points (Appendix Table A14, Panel D). Other characteristics, such as couples' earnings, marital length, and family composition, show no consistent evidence of affecting spillovers.

[18] A couple is coded as being in less agreement if the difference between the marital satisfaction index for each spouse is above the sample median or if the difference in the two spouses' perception of the total household earnings is above the median.

FIGURE 6: Heterogeneity in information spillovers to the secondary spouse



Note: Figures show the spillovers in index spouse benefits estimated using equation (9) separately for different groups. Spikes show 95% confidence intervals and p-values are for testing difference in spillovers across mutually exclusive groups. Appendix Figure A7 shows the spillovers in secondary spouse benefits for the same groups.

4.4.2 Alternative Interpretations

We now explore alternative interpretations for the results of our heterogeneity analysis.

First, we investigate whether the observed lower perception gap for secondary spouses is due

to the index spouse revising their expectations less following the information treatment, rather than actual lower spillovers of information between spouses. To address this, Appendix Figure A8 (and corresponding Appendix Tables A10-A14, panel B) presents the heterogeneity analysis of spillovers in the index spouse's benefits while controlling for the index spouse's baseline perception gap. The rationale for adding this control is that index spouses with larger perception gaps tend to update their expectations substantially more.[19]

With this new specification, the patterns remain identical to those described earlier, suggesting that the heterogeneity arises from processes occurring *after* the index spouse revises their beliefs– either they have not communicated the information, or the secondary spouse has not updated their expectations despite the communication.[20] The only notable difference is that, while the coefficients are largely unchanged, the difference in spillovers based on the gender of the index spouse is a bit more precise (p-value = 0.098). However, as before, this effect is only observed for the index spouse's benefits, not the secondary spouse's benefits (Appendix Table A14, panel E).

Second, we examine whether the larger spillovers are mechanical, specifically whether they are driven by groups with initially larger perception gaps, giving them more margin to adjust their expectations. This could change the interpretation of our findings. For instance, do younger couples have larger spillovers because the information is inherently more valuable to them, or because their initial perception gap is wider? To investigate this, we replicate our heterogeneity analysis using a within-group normalized perception gap as the dependent variable. Specifically, for each subgroup (e.g., younger vs. older couples), we calculate a z-score for the perception gap, with a mean of zero and a standard deviation of one. Appendix Tables A10-A14 panels C and F show the heterogeneity analysis in spillovers with this adjusted dependent variable. Our conclusions remain largely unchanged, qualitatively. For example, we still find significantly larger spillovers among couples where both spouses are under the age of 55 compared to older couples, or among couples whose index spouse benefits' baseline perception gap was below the median.

4.4.3 Dominant Factors in Information Spillovers and Multiple Hypothesis Testing

As we estimate the heterogeneity analysis according to many different characteristics, we face issues of multiple hypotheses testing. To mitigate this problem, we create summary indices by combining variables for each of the factors shown in panels (A)-(D) of Figure 6 so that we effectively test only 4 hypotheses. Panel E variables are directly controlled for in this analysis, since it is not clear how to create a weighted index of couple-based factors.

The indices are all standardized with mean 0 and standard deviation 1 for ease of interpretation and they are defined as follows. For "Lack of cognitive barriers", we sum up the index spouse

[19] We prefer not controlling for the index spouse's *revision* in perception gap as it is not pre-determined with respect to treatment (and is in fact endogenous), but note that the main results and heterogeneity analysis are similar when controlling for it.

[20] The main effects in the full sample of secondary spouses are also not changed when controlling for the index spouse baseline perception gap, see Appendix Table A8.

having a college degree, being financially literate, and showing a higher understanding in the understanding checks and then standardize this sum. For "Lack of communication frictions", we add the disagreement in marital satisfaction being below median, and the disagreement in household earnings being below median and again standardize the resulting sum. The "Gains from sharing" index adds the variables in panels (A) and (B), with a point assigned for each of the following: at least one person in the couple is below age 55, secondary spouse intends to claim based on spouse's record, own benefits are shown to be lower than initially expected, and spouse's benefits are shown to be lower than initially expected. We again standardize the total value to use as our index. Finally, the "Equal couples" index includes if both spouses work full-time, and if the earnings differential is below median.

We bring all this together in Table 6 where the absolute perception gap for the secondary spouse is regressed onto an indicator for whether the index spouse was treated, and its interaction with the various indices. We show the results in columns 1 and 2 for the index spouse's benefits and 3 and 4 for the secondary spouse's benefits. Columns 2 and 4 control in addition for the couple-based factors.

Table 6 reveals that the primary drivers of spillovers are the gains from sharing, followed closely by the reduction in communication frictions. In column 1, a one standard deviation increase in the sharing gains index leads to spillovers that are twice as large compared to couples where the index is zero. Similarly, a one standard deviation increase in the lack of communication frictions index results in spillovers that are 73% larger than those observed in couples with a zero value for the index.[21]

Overall, our results are consistent with cooperative models of decision-making with information frictions. It is important to note that our results suggest that these frictions are not cognitive, despite the fact that we focus on a cognitively complex decision, but are due to barriers to communication.

4.4.4 Qualitative Evidence from the open-ended questions

To complement the findings from our analysis, we included several open-ended questions in a follow-up survey, focusing on within-couple communication. This approach aligns with recent work in economics that uses open-ended questions to explore what is top of mind for individuals (see Stantcheva et al., 2024). 153 couples were successfully re-interviewed between May 29 and July 31, 2024, about 27 months after the first survey. These respondents look largely similar to our original sample. Specifically, respondents were asked: "*Tell us a little bit about how often you discuss financial issues with your spouse. Specifically, what kinds of issues do you discuss, who has more information typically, who ends up taking advice from the other spouse, etc.*"

[21] Appendix Table A15 presents the results of equation (9) augmented with an interaction term for the treatment and each index, one at a time. The results indicate that communication frictions and gains from sharing are key factors in explaining information spillover within couples.

TABLE 6: Factors in spillovers to the secondary spouse

	Index Sp Benefits		Sec Sp Benefits	
	(1)	(2)	(3)	(4)
Treated	-11.0^{***}	-15.0^{***}	-6.6^{***}	-15.0^{***}
	(2.4)	(5.5)	(2.6)	(5.7)
Treated × Lack of cogn barriers	0.8	-0.1	-2.7	-3.8
	(2.2)	(2.4)	(2.5)	(2.5)
Treated × Lack of comm frictions	-8.1^{***}	-7.1^{***}	-10.3^{***}	-10.1^{***}
	(2.5)	(2.6)	(2.7)	(2.7)
Treated × Gains from sharing	-11.3^{***}	-11.6^{***}	-9.2^{***}	-11.0^{***}
	(2.7)	(2.9)	(3.1)	(3.1)
Treated × Equal couples	1.0	0.7	-0.5	-1.3
	(2.4)	(2.5)	(2.6)	(2.5)
Demog. Controls	✓	✓	✓	✓
Couple-based Factors		✓		✓
Control Dep. Var Mean	52.8	52.8	52.2	52.2
Adj. R-Squared	0.2	0.2	0.1	0.2
Observations	1,824	1,824	1,824	1,824

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the Social Security quick calculator. Robust standard errors are in parentheses. Demographics include the ethnicity, education, gender, age group, financial literacy and numeracy for both the index and the secondary spouses. Appendix Table A16 shows the estimates when we also control for index spouse's baseline perception gaps in own or spouse's benefits.

These open-ended responses are consistent with our heterogeneity analysis of spillover effects. Couples frequently emphasize that financial discussions revolve around managing savings and planning for retirement, suggesting that information on Social Security benefits could be particularly valuable. Additionally, many responses indicate joint decision-making in this area, highlighting the importance of sharing information between partners. However, the responses also point out key barriers to communication. Stress and fear of conflict are prominent reasons for avoiding financial discussions. Furthermore, the fact that many couples discuss finances on a weekly or monthly basis suggests the existence of a fixed cost in initiating such conversations. We summarize the findings in greater detail, together with word clouds in Appendix C.

5 Alignment of Intended Claiming Ages

We have shown that there are substantial spillovers of the provided information to the secondary spouse, and that there is meaningful heterogeneity. We now examine how information transmission (or lack thereof) within couples affects intra-household decision-making. To investigate this, we focus on the agreement in expected claiming ages for a given spouse. While we do not know the optimal claiming ages for couples, it must be the case that couples are not optimizing their current saving and labor supply decisions if one spouse expects the other spouse to retire and/or claim much later or earlier than what is intended by the spouse themselves.

The measure of alignment we are interested in is the absolute distance between spouses' reported expected claiming ages for the *same* spouse. For example, the absolute value of |index spouse's own claiming age expectation at stage 0 - secondary spouse's claiming age expectation for index spouse at stage 5| is the absolute distance in index and secondary spouses' beliefs about index spouse's claiming age at the baseline of their respective surveys (i.e., before they receive any information). We denote this as $D_{c,0,5}$. Likewise, $D_{c,4,5}$ is the absolute distance in claiming age expectations (for index spouse) using index spouse's expectation reported in stage 4 (that is, after they have been treated with information) and secondary spouse's baseline expectations (before they have received information). The measure $D_{c,4,5} - D_{c,0,5}$ then tells us how much the absolute distance changes when only the index spouse is treated with information. A decrease in this measure would indicate improved alignment as a result of information provision and/or spillovers.

We run the same specification as in equation (9) except that this misalignment measure is the dependent variable; only T1 and Control couples are used for this analysis.[22] Estimates are presented in the first two columns of Table 7. We observe a decrease in misalignment of 1.1 months (1.4 months once we control for demographics) in the absolute distance when only the index spouse is provided with information. Given the control group mean of 24 months, this is an economically meaningful impact but the coefficient is not precisely estimated (p-value=0.3).

This suggests that efficiency gains are possible (that is, misalignment can decrease) if only one spouse is targeted with information, mainly due to spillovers. The question is whether further gains (i.e., reduction in misalignment) are possible if both spouses are treated with information. The dependent variable in the last two columns of the table is $D_{c,4,7} - D_{c,0,5}$, i.e., the change in misalignment when both spouses have received and processed the information (stage 4 for the index spouse and stage 7 for the secondary spouse, as shown in Figure B1). Columns 3 and 4 show a significant reduction in the absolute distance, implying that providing information to both spouses closes the baseline misalignment gap by around 2.4 months or by around 10% of the control group baseline average. This suggests that informing both spouses leads to greater alignment in expected claiming age compared to informing only one spouse, even in the presence of information spillovers.

[22] We exclude secondary spouses in T2 since they received a different information treatment.

TABLE 7: Alignment in beliefs about Social Security benefit claiming age

	Only Index Sp Receives Info		Both Sp Receive Info	
	(1)	(2)	(3)	(4)
	$D_{c,4,5} - D_{c,0,5}$	$D_{c,4,5} - D_{c,0,5}$	$D_{c,4,7} - D_{c,0,5}$	$D_{c,4,7} - D_{c,0,5}$
Treatment	-1.1	-1.4	-2.4^{*}	-3.0^{**}
	(1.1)	(1.2)	(1.3)	(1.4)
Demog. Controls		✓		✓
Control Gr Baseline Mean	24.1	23.7	24.1	23.7
R^2	0.0	0.0	0.0	0.0
Observations	3,551	3,516	3,550	3,515

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in the first two columns is the difference in the absolute distance between index spouse's stage 4 and secondary spouse's stage 5 claiming age expectations and the absolute distance between index spouse's stage 0 and secondary spouse's stage 5 claiming age expectations. The dependent variable in the last two columns is the difference in the absolute distance between index spouse's stage 4 and secondary spouse's stage 7 claiming age expectations and the absolute distance between index spouse's stage 0 and secondary spouse's stage 5 claiming age expectations. Standard errors are clustered at the couple level. Demographics include the ethnicity, education, gender, age group, financial literacy for both the index and the secondary spouses.

6 Conclusion

Contrary to traditional economic models assuming perfect information sharing within couples, we find significant misalignment in expectations about Social Security benefits. In our sample of US middle-aged couples, the correlation of Social Security expectations is 0.68. In addition, individuals within a couple are similarly misinformed, which suggests that errors within households tend to be amplified. Moreover, in our sample, there is little evidence of specialization within the household. Notably, we find similar correlations, ranging from 0.46 to 0.64, for expectations concerning unemployment, inflation, stock market prices, household spending growth, and earnings growth. We believe these descriptive facts are a contribution in themselves since, to date, we know little about how expectations are aligned within a decision-making unit.

We also provide causal evidence on information-sharing within couples by leveraging a randomized information intervention combined with a sequential survey design within couples. Consistent with some information sharing, having a treated spouse leads to a secondary spouse having expectations more in line with the information provided to the index spouse. The spillover effect is about half the treatment effect we estimate for the index spouse. The size of this spillover depends primarily on the gains from sharing and communication frictions within couples, with little evidence of strategic motives to share (or hide). We also find that the information treatment enhances conditions for better intra-household decision-making.

Our paper is one of the first to document drivers of information spillovers within couples. While the economics literature has extensively studied how couples allocate time and money, less attention has been given to how they manage information, an equally valuable resource. Understanding the factors that drive information sharing is a first-order question. In addition, the limited literature on this topic has primarily focused on gender dynamics, leaving broader patterns

of information transmission largely unexplored. Our findings reveal rich and intuitive patterns of heterogeneity, but further research is needed to understand why these patterns arise and how generalizable they are. For instance, while we find a limited role for cognitive frictions in our setting, it remains unclear whether this finding extends to other contexts. Additionally, our design cannot disentangle whether imperfect spillovers stem from the index spouse withholding information or the secondary spouse discounting it. That would understandably be hard to disentangle in field settings; a stylized (laboratory) setup may be better suited to address that question and advance our understanding.

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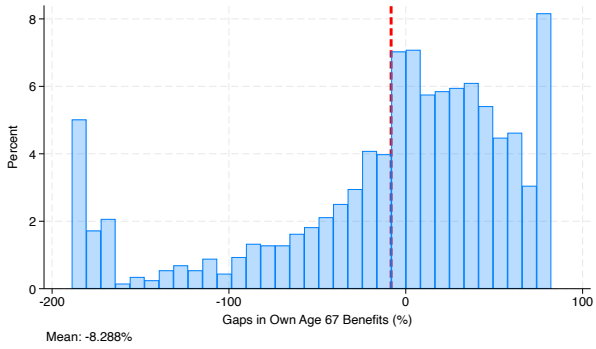
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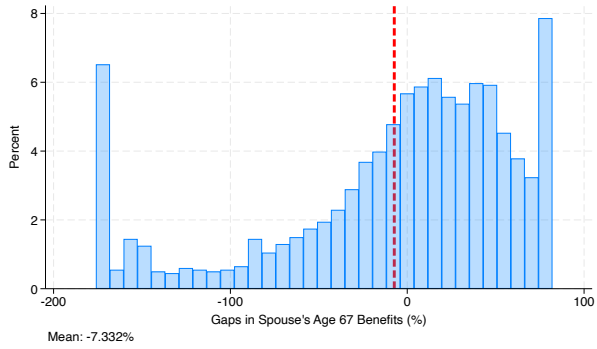
Appendix A Figures and Tables

FIGURE A1: Perception gaps in own and spouse's age 67 benefits

(A) Own benefits

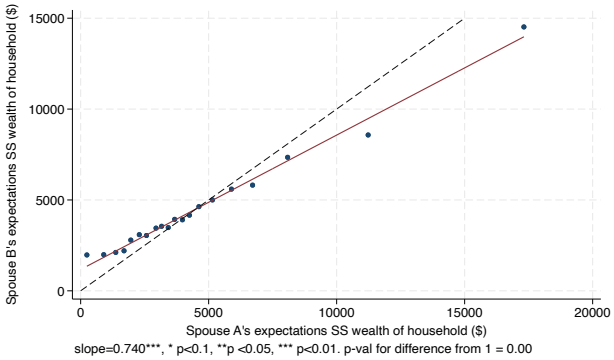


(B) Spouse's benefits



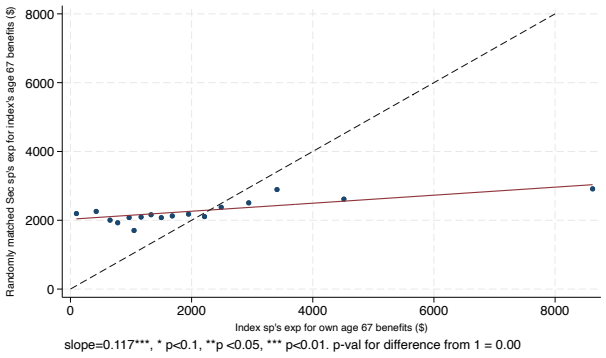
Note: The figures show the histograms for respondents' perception gaps in their own (left panel) and in their spouses' (right panel) age 67 benefits. Gaps are defined as $\frac{\text{Predicted benefits by the SSA calculator - Expected benefits}}{\text{Predicted benefits by the SSA calculator}}$. Gaps are winsorized at the top and bottom 5%.

FIGURE A2: Within-couple expectations for Social Security wealth



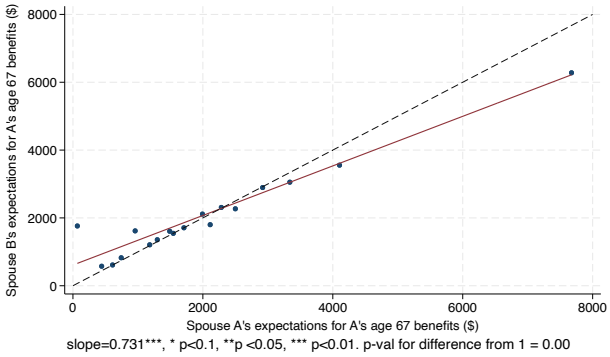
Note: The correlation between spouses' expectations for household's SS wealth falls to 0.68, when we exclude couples with SS wealth expectations above $8,000.

FIGURE A3: Correlation between spouses' benefit expectations - Randomly matching spouses



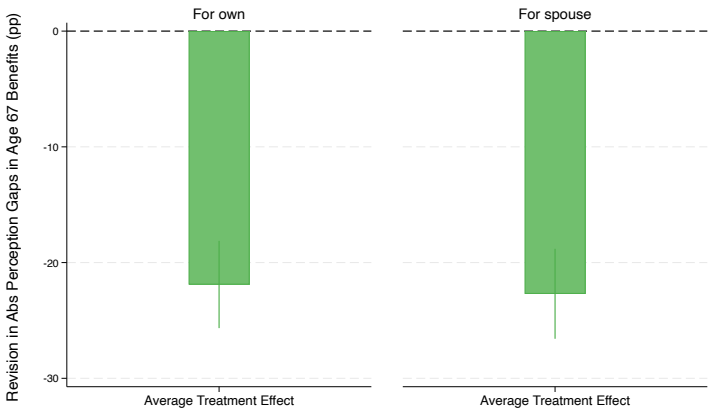
Note: The correlation between spouses' expectations for a given spouses' age 67 benefits falls to 0.1, when we randomly match secondary spouses to primary spouses based on the index spouses' characteristics (gender, age, education and employment status).

FIGURE A4: Correlation between spouses' benefit expectations - Couples with accurate earnings perceptions



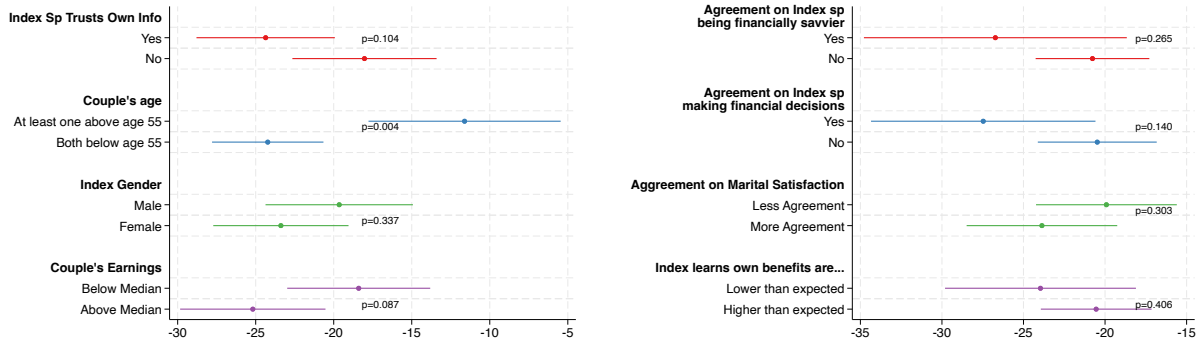
Note: The correlation between spouses' expectations for a given spouses' age 67 benefits is 0.73, when we restrict our sample to couples with accurate earnings perceptions.

FIGURE A5: Treatment Effect on index spouse's absolute perception gaps



Note: The figure shows the average treatment effects from baseline to the endline, estimated using equation (8), separately for index spouse benefits and secondary spouse benefits.

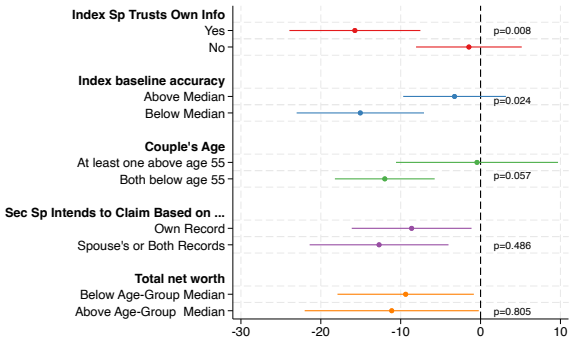
FIGURE A6: Heterogeneity in the treatment effects on index spouse's absolute perception gaps about own age 67 benefits



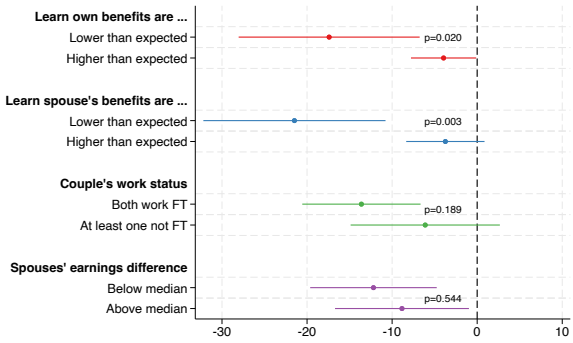
Note: The figure shows the average treatment effects for the index spouse benefits from Stage 0 to Stage 4, estimated using equation (8), separately by different observable characteristics of the index spouse or the couple. The figures include the 90% confidence intervals. Appendix Table A7 presents the estimates for each data cut.

FIGURE A7: Heterogeneity in information spillovers to the secondary spouse - Secondary spouse benefits

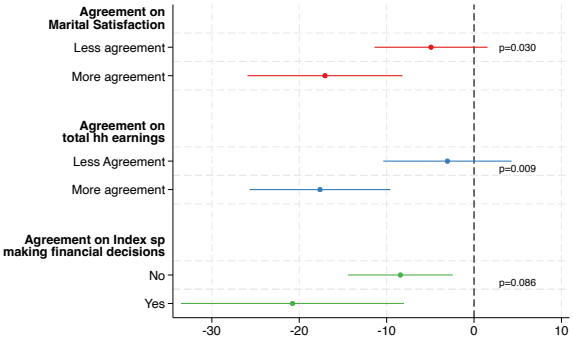
(A) Value of information



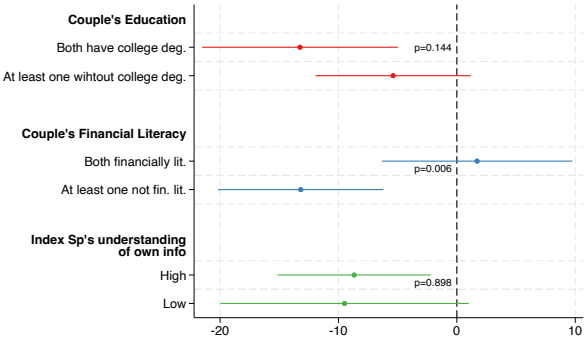
(B) Strategic motivations



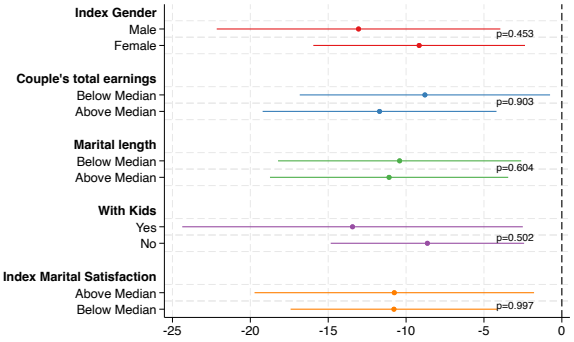
(C) Communication frictions



(D) Cognitive frictions



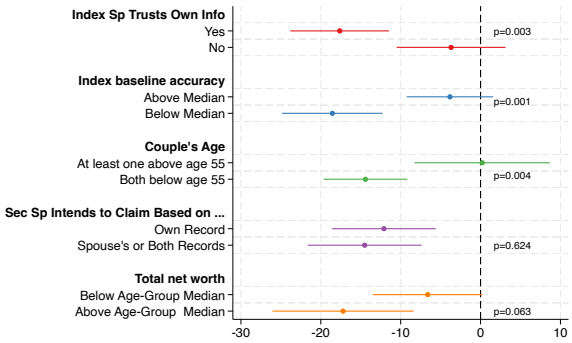
(E) Couple-based factors



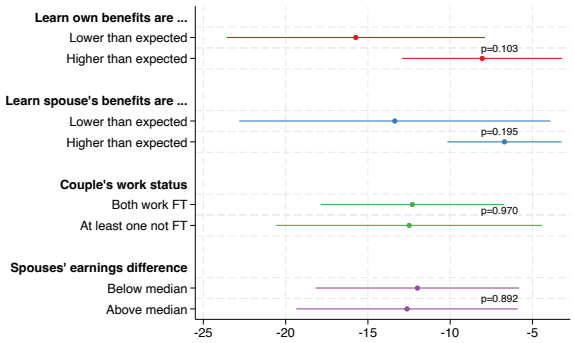
Note: Figures show the spillovers in secondary spouse benefits estimated using equation (9) separately for different groups.

FIGURE A8: Heterogeneity in information spillovers about index spouse's benefits to the secondary spouse - Controlling for index spouse's baseline perception gap

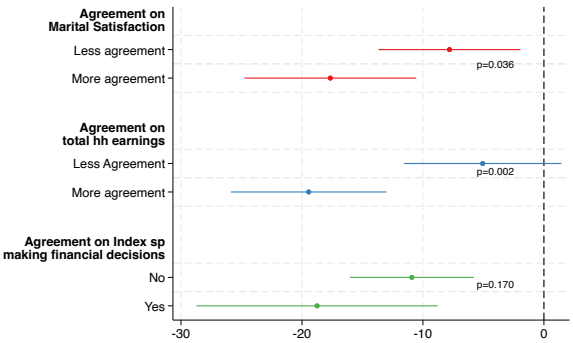
(A) Value of information



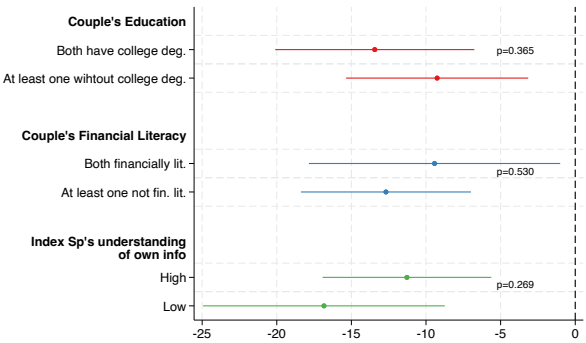
(B) Strategic motivations



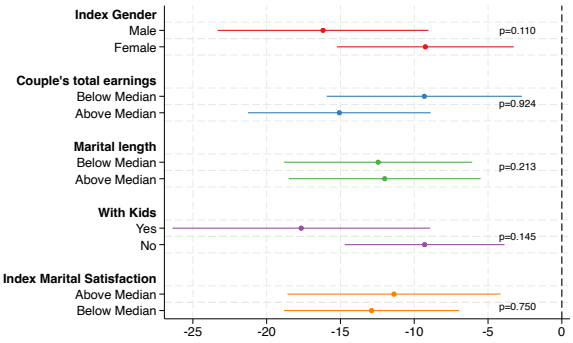
(C) Communication frictions



(D) Cognitive frictions



(E) Couple-based factors



Note: Figures show the spillovers in index spouse benefits estimated using equation (9) and controlling for index spouse's baseline perception gap in own benefits, separately for different groups.

TABLE A1: Selection of secondary spouses into completing the survey

	Pr(sec spouse responding) Control	Pr(sec spouse responding) Treatment	p-val of differences btw C and T
Female	-0.024	-0.014	0.70
	(0.02)	(0.01)	
College Grad.	0.011	0.018	0.25
	(0.02)	(0.01)	
Age above 45	0.005	0.036***	0.79
	(0.02)	(0.01)	
Have child under age 6	-0.010	-0.018	0.64
	(0.02)	(0.01)	
Age expected to start claiming SS benefits	-0.002	0.000	0.18
	(0.00)	(0.00)	
Age expected for sp to start claiming SS benefits	0.001	-0.004*	0.75
	(0.00)	(0.00)	
Above median earnings	0.050	-0.016	0.74
	(0.04)	(0.02)	
Employed	-0.035	-0.048**	0.70
	(0.03)	(0.02)	
Reports making financial dec.	-0.002	-0.033***	0.58
	(0.02)	(0.01)	
Financially literate	0.094***	0.102***	0.60
	(0.03)	(0.01)	
Above median marital satisf.	-0.017	-0.001	0.34
	(0.02)	(0.01)	
Expected own age 67 benefits ($1000s)	-0.009***	-0.003**	0.87
	(0.00)	(0.00)	
Predicted age 67 benefits by SSA calc. ($1000s)	-0.011	-0.004	0.11
	(0.02)	(0.01)	
Spouse's predicted age 67 benefits by SSA calc. ($1000s)	0.024**	0.019***	0.17
	(0.01)	(0.01)	
Below median marital length	-0.012	0.005	0.73
	(0.02)	(0.01)	
% Chance of Receiving SS Benefits	-0.001	-0.000	0.27
	(0.00)	(0.00)	
% Chance of Spouse Receiving SS Benefits	0.000	0.001*	0.17
	(0.00)	(0.00)	
Dep. Var. Mean	0.226	0.255	
R^2	0.048	0.042	
Observations	2,220	6,939	

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is a binary variable showing whether the secondary spouse completed the survey. The observable characteristics included in the regression are index spouse's characteristics. All spouse-related variables are reported by the index spouse.

TABLE A2: Comparison of marital satisfaction of spouses within a couple

Quartiles of Secondary Sp's Marital Satisfaction	Quartiles of Index Sp's Marital Satisfaction			
	Q1	Q2	Q3	Q4
Q1	17.5	4.6	2.2	0.7
Q2	6.8	11.4	5.7	1.2
Q3	2.5	6.9	18.3	2.9
Q4	0.7	2.0	6.6	10.0

Note: The table shows within-couple variation in the marital satisfaction index. Each cell in the table shows the share of couples with the index and secondary spouses' marital satisfaction index in the specified quartiles. Note that a higher value of the index indicates greater satisfaction.

TABLE A3: Comparison to the CPS

	Survey	2022 CPS
Female	0.59	0.42
White	0.88	0.80
Age $<$ 45	0.54	0.28
Age 45-50	0.19	0.26
Age $>$ 50	0.27	0.45
College degree	0.65	0.47
Employed	0.85	0.86
Weekly earnings ($) for College Grads	2033.95	1804.50
Weekly earnings($) for Non-College	975.99	1098.74
Unemployed	0.03	0.02
Midwest	0.31	0.21
South	0.37	0.38
West	0.20	0.23
Observations	2,219	104,937

Note: The table compares the background characteristics of the index spouses from our survey to the married, non-retired household heads in the 2022 CPS. The left-out Census region is Northeast.

TABLE A4: Heterogeneity in index spouses' absolute perception gaps in own age 67 benefits

	Average Abs Gap in Own Age 67 benefits	p-value of differences across groups
Overall	53.445***	
Male	53.185***	
Female	53.639***	0.84
Below age 55	54.952***	
Above age 55	42.640***	0.00
Couple below-median earnings	49.382***	
Couple above-median earnings	56.837***	0.00
No college	44.228***	
College deg.	57.983***	0.00
Not financially lit.	58.559***	
Financially lit.	43.105***	0.00

Note: The table shows the average absolute perception gaps of index spouses for their own age 67 benefits as a share of the benefits predicted by the SSA calculator. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, show the statistical difference of the average absolute perception gaps from 0. The last column shows the p-value of the differences in the average absolute gaps across the mutually exclusive groups, as defined in the first column.

TABLE A5: Average treatment effects on index spouse's absolute perception gaps in own and spouse's age 67 benefits

	(1) Rev in Abs PG in own age 67 ben (pp) S0-S2	(2) Rev in Abs PG in own age 67 ben (pp) S2-S4	(3) Rev in Abs PG in own age 67 ben (pp) S0-S4	(4) Rev in Abs PG in sp age 67 ben (pp) S0-S2	(5) Rev in Abs PG in sp age 67 ben (pp) S2-S4	(6) Rev in Abs PG in sp age 67 ben (pp) S0-S4
Average Treatment Effect	-21.51***	-0.37	-21.90***	-8.65***	-13.30***	-22.70***
	(2.06)	(1.36)	(1.92)	(2.02)	(1.47)	(1.98)
Constant	-4.67	4.21	1.67	10.33**	-1.65	6.09
	(5.15)	(2.78)	(5.19)	(5.04)	(4.04)	(5.04)
Baseline Control Abs PG	55.1	54.3	54.7	54.7	54.9	53.9
Dep. Var. Mean	-17.43	0.06	-17.66	-6.43	-7.14	-14.11
R^2	0.06	0.01	0.06	0.02	0.05	0.06
Observations	1,492	1,425	1,521	1,540	1,450	1,537

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in the first column is the revision in the absolute perception gap (PG) of the index spouse in their own age 67 benefits from Stage 0 to Stage 2; in the second column the dependent variable is the revision in absolute PG in index spouse's own age 67 benefits from Stage 2 to 4 and in the third column it is the revision from Stage 0 to 4. The dependent variables in the fourth, fifth and the sixth columns are the equivalent of the dependent variables in the first three columns, for secondary spouse's benefits. The absolute perception gaps in all columns are measured as the absolute perception gaps as shares of benefits calculated by the SSA Quick Calculator. Demographics are also included in all columns and these include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses.

TABLE A6: Treatment effects on index spouse's beliefs about own and spouse's age 67 benefits, by terciles of the baseline Perception gap

	(1) Rev in Exp about own age 67 ben (pp) S0-S2	(2) Rev in Exp about own age 67 ben (pp) S2-S4	(3) Rev in Exp about own age 67 ben (pp) S0-S4	(4) Rev in Exp about sp age 67 ben (pp) S0-S2	(5) Rev in Exp about sp age 67 ben (pp) S2-S4	(6) Rev in Exp about sp age 67 ben (pp) S0-S4
Treatment × PG for Own $< p33$	-32.05***	-4.58	-55.56***			
	(5.59)	(3.47)	(9.32)			
Treatment × PG for Own $\in [p33, p66]$	4.73	2.74	7.56**			
	(3.00)	(2.19)	(3.09)			
Treatment × PG for Own $> p66$	26.79***	4.04**	31.48***			
	(3.59)	(1.99)	(4.12)			
Treatment × PG for Spouse $< p33$				-13.56**	-22.87***	-50.19***
				(6.48)	(4.63)	(11.38)
Treatment × PG for Spouse $\in [p33, p66]$				-0.12	-0.79	-0.04
				(3.25)	(2.51)	(3.30)
Treatment × PG for Spouse $> p66$				19.91***	8.62***	27.57***
				(4.14)	(2.20)	(6.48)
Constant	-13.69**	5.53	0.73	-1.66	4.56	-5.70
	(6.63)	(4.05)	(11.19)	(7.45)	(5.88)	(13.88)
Baseline Control Exp.	2399.4	2384.2	2403.4	2323.8	2315.2	2303.9
Dep. Var. Mean	-3.83	1.86	-3.46	4.07	-0.36	1.20
R^2	0.31	0.02	0.21	0.18	0.06	0.17
Observations	1,492	1,423	1,521	1,540	1,448	1,459

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in the first column is the revision in index spouse's beliefs about their own age 67 benefits from Stage 0 to 2; in the second column the dependent variable is the revision in beliefs about own age 67 benefits from Stage 2 to 4 and in the third column it is the revision from Stage 0 to 4. The dependent variables in the fourth, fifth and the sixth columns are the equivalent of the dependent variables in the first three columns, for index spouse's beliefs about the secondary spouse's benefits. The revision in beliefs are measured as percentage point changes. Demographics are also included in all columns and these include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses. All columns also include dummies for the terciles of the baseline perception gaps.

TABLE A7: Heterogeneity in the treatment effects on index spouse's absolute perception gaps about own age 67 benefits

PANEL A:	Index Spouse Benefits									
	(1) Index Trusts Own Info	(2) Index Doesn't Trust Own Info	(3) Index Sp Above Med Uncertainty	(4) Index Sp Below Med Uncertainty	(5) At least one above 55	(6) Both sp below 55	(7) Index Gender Male	(8) Index Gender Female	(9) Total Earn. Below Med	(10) Total Earn. Above Med
Treated	-24.3^{***}	-18.0^{***}	-23.4^{***}	-20.3^{***}	-11.5^{***}	-24.2^{***}	-19.6^{***}	-23.3^{***}	-18.4^{***}	-25.2^{***}
	(2.7)	(2.8)	(3.1)	(2.4)	(3.8)	(2.1)	(2.9)	(2.6)	(2.8)	(2.8)
Difference Between Groups		6.4*		3.1		-12.7^{***}		-3.7		-6.8^{*}
TE as % of CG PG	-3081.6	746.4	4321.5	3312.0	172.9	-3895.1	1178.2	-9622.5	5894.6	4478.8
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Dep. Var Mean	0.8	-2.4	-0.5	-0.6	-6.7	0.6	-1.7	0.2	-0.3	-0.6
Adj. R-Squared	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1
Observations	924	597	740	781	268	1,253	646	874	677	802

PANEL B:	Index Spouse Benefits							
	(1) Sp Agree Index Sp Fin. Savvier	(2) Sp Disagree Index Sp Fin. Savvier	(3) Aggr on Index Making Fin. Dec.	(4) Less Aggr on Index Making Fin. Dec.	(5) Less Aggr. on Mar. Sat	(6) More Aggr. on Mar. Sat	(7) Index Learns Own Ben Lower than exp	(8) Index Learns Own Ben Higher than exp
Treated	-26.6^{***}	-20.8^{***}	-27.5^{***}	-20.4^{***}	-19.8^{***}	-23.9^{***}	-23.9^{***}	-20.6^{***}
	(5.0)	(2.1)	(4.2)	(2.2)	(2.6)	(2.8)	(3.5)	(2.1)
Difference Between Groups		5.9		7.0		-4.1		3.3
TE as % of CG PG	-1171.4	1895.2	6098.1	3296.4	4826.0	3102.0	859.5	-1827.5
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓
Control Dep. Var Mean	2.3	-1.1	-0.5	-0.6	-0.4	-0.8	-2.8	1.1
Adj. R-Squared	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1
Observations	220	1,297	313	1,208	775	745	688	832

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the revision in index spouse's beliefs about their own age 67 benefits from Stage 0 to 4. The revision in beliefs are measured as percentage point changes. Demographics are also included in all columns and these include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses. In column titles, "Sp Agree Index Sp Fin. Savvier" refers to "Spouses Agree Index Spouse is Financially Savvier" and "Mar. Sat" refers to marital satisfaction.

TABLE A8: Information spillovers to the secondary spouse - Controlling for index spouse's baseline perception gap

	Percents		Dollars	
	(1) Index Sp Ben.	(2) Sec Sp Ben.	(3) Index Sp Ben.	(4) Sec Sp Ben.
Treated Couple	-12.1^{***}	-8.5^{***}	-305.8^{***}	-223.3^{***}
	(2.3)	(2.5)	(60.8)	(66.5)
TE as % of CG PG	-23.0	-16.2	-25.8	-18.9
Demog. Controls	✓	✓	✓	✓
Control Dep. Var Mean	52.8	52.2	1183.2	1180.1
Adj. R-Squared	0.2	0.2	0.2	0.2
Observations	1,824	1,824	1,824	1,824

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in the first two columns is the absolute perception gap of the secondary spouse in index spouse's or their own age 67 benefits as share of the predicted benefits by the SS quick calculator. The dependent variable in the last two columns is the the absolute perception gap of the secondary spouse in index spouse's or their own age 67 benefits in dollars. All four regressions also control for the index spouse's baseline perception gap in their own (columns 1 and 3) or their spouse's (columns 2 and 4) benefits. Demographics include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses.

TABLE A9: Information spillovers to the secondary spouse - With test-retest measurement error

	Percents		Dollars	
	(1)	(2)	(3)	(4)
	Index Sp Ben.	Sec Sp Ben.	Index Sp Ben.	Sec Sp Ben.
Treated Couple	-18.6^{***}	-21.8^{***}	-468.6^{***}	-449.9^{***}
	(5.5)	(4.9)	(67.1)	(68.6)
TE as % of CG PG	-35.9	-40.6	-43.6	-42.0
TE as % of Index Rev	82.3	91.5	88.0	83.5
Demog. Controls	✓	✓	✓	✓
Control Dep. Var Mean	51.9	53.8	1073.5	1072.2
Adj. R-Squared	0.1	0.1	0.2	0.2
Observations	1,824	1,824	1,824	1,824

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in the first two columns is the absolute perception gap of the secondary spouse in index spouse's or their own age 67 benefits as share of the predicted benefits by the SS quick calculator. The dependent variable in the last two columns is the the absolute perception gap of the secondary spouse in index spouse's or their own age 67 benefits in dollars. Demographics include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses.

TABLE A10: Information spillovers to the secondary spouse by value of information

PANEL A:	Index Spouse Benefits									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Index Trusts Own Info	Index Doesn't Trust Own Info	At least one above 55	Both sp below 55	Sec Sp Claim Based on Own Record	Sec Sp Claim Based on Sp or Both Records	Total net worth Below Age Gr Med	Total net worth Above Age Gr Med	Exp. Ben. Accuracy Above Median	Exp. Ben. Accuracy Below Median
Treated	−18.1***	−3.8	1.9	−15.4***	−10.8***	−16.9***	−8.1**	−15.7***	−3.8	−18.8***
	(3.6)	(3.6)	(4.7)	(2.9)	(3.6)	(3.9)	(3.9)	(4.9)	(2.8)	(3.7)
Difference Between Groups		14.2***		−17.3***		−6.1		−7.6		−15.0***
Control Dep. Var Mean	57.9	46.9	35.3	56.6	51.3	55.7	49.6	56.9	34.0	71.3
PANEL B:	Index Spouse Benefits, controlling for baseline PG									
Treated	−17.3***	−3.2	0.9	−14.1***	−10.8***	−14.9***	−5.7	−16.4***	−3.9	−17.6***
	(3.1)	(3.5)	(4.4)	(2.7)	(3.3)	(3.6)	(3.5)	(4.5)	(2.7)	(3.3)
Difference Between Groups		14.0***		−15.0***		−4.1		−10.6*		−13.7***
Control Dep. Var Mean	58.4	46.8	34.9	57.0	51.0	56.7	49.5	57.2	34.0	71.7
PANEL C:	Index Spouse Benefits, normalized using z-scores									
Treated	−0.4***	−0.1	0.1	−0.3***	−0.2***	−0.4***	−0.2**	−0.3***	−0.1	−0.4***
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.3**		−0.4***		−0.1		−0.1		−0.3**
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Dep. Var Mean	0.2	0.1	0.0	0.2	0.1	0.2	0.1	0.2	0.1	0.2
Observations	1,075	749	345	1,479	916	770	615	651	915	909
PANEL D:	Secondary Spouse Benefits									
Treated	−15.7***	−1.5	−0.4	−12.0***	−8.6**	−12.7***	−9.4**	−11.1**	−3.3	−15.1***
	(4.2)	(3.4)	(5.2)	(3.2)	(3.8)	(4.4)	(4.4)	(5.6)	(3.3)	(4.1)
Difference Between Groups		14.3***		−11.5*		−4.1		−1.7		−11.8**
Control Dep. Var Mean	61.1	41.7	35.1	55.9	47.0	58.0	53.2	57.9	37.6	66.4
PANEL E:	Secondary Spouse Benefits, controlling for baseline PG									
Treated	−13.5***	−0.1	−1.7	−8.8***	−7.8**	−8.9**	−4.0	−14.2***	−1.1	−13.2***
	(3.5)	(3.4)	(5.0)	(2.8)	(3.4)	(4.0)	(3.9)	(4.7)	(3.1)	(3.6)
Difference Between Groups		13.4***		−7.1		−1.0		−10.3*		−12.1**
Control Dep. Var Mean	63.4	42.7	37.5	57.6	49.5	59.3	53.9	61.0	39.2	68.4
PANEL F:	Secondary Spouse Benefits, normalized using z-scores									
Treated	−0.3***	−0.0	−0.0	−0.2***	−0.2**	−0.2***	−0.2**	−0.2**	−0.1	−0.3***
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.3**		−0.2		−0.1		−0.0		−0.2*
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Dep. Var Mean	0.1	−0.0	−0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Observations	1,075	749	345	1,479	916	770	615	651	915	909

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the SS quick calculator. Robust standard errors are in parentheses. Demographics include the ethnicity, education, gender, age group, financial literacy for both the index and the secondary spouses. Panels A-C show the spillovers in index spouse's benefits and D-F show the spillovers in secondary spouse's benefits. Panels A and D show estimates from equation (9), panels B and E show estimates from equation (9) also controlling for the baseline perception gap of the index spouse and panels C and F show the estimates from equation (9) by using within-group normalized (using a z-score) perception gaps as the dependent variable. In column titles, "Sec sp" refers to secondary spouse, "Age Gr Med" refers to Age Group Median.

TABLE A11: Information spillovers to the secondary spouse by strategic motivation

PANEL A:	Index Spouse Benefits							
	(1) Learn Own Ben Lower than exp	(2) Learn Own Ben Higher than exp	(3) Learn Sp Ben Lower than exp	(4) Learn Sp Ben Higher than exp	(5) Both sp work FT	(6) At least one sp not work FT	(7) Sp Earn Diff Below Median	(8) Sp Earn Diff Above Median
Treated	−18.8***	−8.1***	−19.7***	−7.6***	−14.2***	−11.8***	−12.6***	−13.3***
	(4.7)	(2.5)	(5.5)	(1.8)	(3.1)	(4.4)	(3.4)	(3.8)
Difference Between Groups		10.7**		12.0**		2.4		−0.7
Control Dep. Var Mean	64.5	43.8	71.6	40.6	53.2	52.2	52.2	53.4
PANEL B:	Index Spouse Benefits, controlling for baseline PG							
Treated	−14.3***	−8.1***	−12.3**	−6.4***	−11.1***	−13.5***	−10.9***	−12.9***
	(3.9)	(2.5)	(4.9)	(1.7)	(2.8)	(4.2)	(3.2)	(3.5)
Difference Between Groups		6.2		5.9		−2.4		−2.0
Control Dep. Var Mean	64.2	43.9	72.3	40.5	52.8	53.6	52.2	54.1
PANEL C:	Index Spouse Benefits, normalized using z-scores							
Treated	−0.340***	−0.267***	−0.326***	−0.306***	−0.309***	−0.285***	−0.277***	−0.309***
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.073		0.020		0.024		−0.032
Control Dep. Var Mean	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	780	1,042	702	1,120	1,137	687	899	925
PANEL D:	Secondary Spouse Benefits							
Treated	−17.4***	−3.9**	−21.5***	−3.7	−13.6***	−6.1	−12.2***	−8.8**
	(5.4)	(2.0)	(5.5)	(2.3)	(3.5)	(4.5)	(3.8)	(4.0)
Difference Between Groups		13.5**		17.7***		7.5		3.4
Control Dep. Var Mean	70.6	37.9	71.2	39.8	54.0	48.5	52.1	52.2
PANEL E:	Secondary Spouse Benefits, controlling for baseline PG							
Treated	−11.4**	−4.2**	−11.5**	−4.0*	−9.6***	−6.1	−8.9***	−7.4**
	(4.4)	(1.9)	(4.7)	(2.4)	(3.1)	(4.3)	(3.4)	(3.6)
Difference Between Groups		7.2		7.5		3.6		1.5
Control Dep. Var Mean	73.4	37.9	74.0	40.9	55.2	51.6	54.6	53.3
PANEL F:	Secondary Spouse Benefits, normalized using z-scores							
Treated	−0.273***	−0.157**	−0.341***	−0.117	−0.266***	−0.130	−0.245***	−0.179**
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.117		0.224**		0.135		0.065
Control Dep. Var Mean	0.1	0.1	0.1	0.1	0.1	−0.0	0.0	0.1
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	780	1,042	702	1,120	1,137	687	899	925

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the SS quick calculator. Robust standard errors are in parentheses. Demographics include the ethnicity, education, gender, age group, financial literacy for both the index and the secondary spouses. Panels A-C show the spillovers in index spouse's benefits and D-F show the spillovers in secondary spouse's benefits. Panels A and D show estimates from equation (9), panels B and E show estimates from equation (9) also controlling for the baseline perception gap of the index spouse and panels C and F show the estimates from equation (9) by using within-group normalized (using a z-score) perception gaps as the dependent variable.

TABLE A12: Information spillovers to the secondary spouse by communication factors

PANEL A:	Index Spouse Benefits					
	(1) Less Aggr. on Mar. Sat	(2) More Aggr. on Mar. Sat	(3) Less Aggr on Total Earn	(4) More Aggr on Total Earn	(5) Less Aggr on Index Making Fin. Dec.	(6) Aggr on Index Making Fin. Dec.
Treated	-7.7^{**}	-18.9^{***}	-6.3^{*}	-19.6^{***}	-11.6^{***}	-19.2^{***}
	(3.2)	(4.0)	(3.6)	(3.6)	(2.9)	(5.5)
Difference Between Groups		-11.2^{**}		-13.4^{***}		-7.6
Control Dep. Var Mean	50.0	55.9	51.7	54.0	52.4	54.3
PANEL B:	Index Spouse Benefits, controlling for baseline PG					
Treated	-7.2^{**}	-17.2^{***}	-4.8	-19.5^{***}	-10.3^{***}	-19.3^{***}
	(3.0)	(3.6)	(3.3)	(3.3)	(2.6)	(5.1)
Difference Between Groups		-10.0^{**}		-14.8^{***}		-8.9
Control Dep. Var Mean	49.9	56.6	51.7	54.3	52.5	55.2
PANEL C:	Index Spouse Benefits, normalized using z-scores					
Treated	-0.187^{**}	-0.404^{***}	-0.139^{*}	-0.470^{***}	-0.257^{***}	-0.483^{***}
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		-0.217^{*}		-0.331^{***}		-0.226
Control Dep. Var Mean	0.1	0.2	0.1	0.3	0.1	0.3
Demog. Controls	✓	✓	✓	✓	✓	✓
Observations	917	906	875	928	1,466	358
PANEL D:	Secondary Spouse Benefits					
Treated	-4.9	-17.1^{***}	-3.0	-17.6^{***}	-8.4^{***}	-20.8^{***}
	(3.3)	(4.5)	(3.7)	(4.1)	(3.0)	(6.6)
Difference Between Groups		-12.1^{**}		-14.6^{***}		-12.4^{*}
Control Dep. Var Mean	46.8	58.0	49.5	54.9	49.6	61.9
PANEL E:	Secondary Spouse Benefits, controlling for baseline PG					
Treated	-3.1	-13.5^{***}	0.8	-16.0^{***}	-5.0^{*}	-20.9^{***}
	(3.1)	(3.9)	(3.5)	(3.6)	(2.7)	(6.0)
Difference Between Groups		-10.4^{**}		-16.8^{***}		-15.9^{**}
Control Dep. Var Mean	48.2	60.2	49.4	54.9	51.3	64.2
PANEL F:	Secondary Spouse Benefits, normalized using z-scores					
Treated	-0.108	-0.321^{***}	-0.061	-0.376^{***}	-0.169^{***}	-0.436^{***}
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		-0.213^{*}		-0.315^{***}		-0.268^{*}
Control Dep. Var Mean	-0.0	0.1	-0.1	0.2	-0.0	0.3
Demog. Controls	✓	✓	✓	✓	✓	✓
Observations	917	906	875	928	1,466	358

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the SS quick calculator. Robust standard errors are in parentheses. Demographics include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses. Panels A-C show the spillovers in index spouse's benefits and D-F show the spillovers in secondary spouse's benefits. Panels A and D show estimates from equation (9), panels B and E show estimates from equation (9) also controlling for the baseline perception gap of the index spouse and panels C and F show the estimates from equation (9) by using within-group normalized (using a z-score) perception gaps as the dependent variable.

TABLE A13: Information spillovers to the secondary spouse by cognitive factors

PANEL A:	Index Spouse Benefits					
	(1) Both college	(2) At least one not college	(3) Both Fin. Lit	(4) At least one Not Fin. Lit	(5) Index unders. check high score	(6) Index unders. check low score
Treated	-15.0^{***}	-8.7^{***}	-9.7^{**}	-13.6^{***}	-12.8^{***}	-12.2^{***}
	(3.8)	(3.2)	(4.4)	(3.2)	(3.1)	(4.6)
Difference Between Groups		6.3		-3.9		0.6
Control Dep. Var Mean	58.3	46.6	45.4	55.0	51.7	54.7
PANEL B:	Index Spouse Benefits, controlling for baseline PG					
Treated	-12.6^{***}	-9.3^{***}	-10.0^{**}	-11.6^{***}	-11.2^{***}	-15.3^{***}
	(3.4)	(3.2)	(4.3)	(2.9)	(2.9)	(4.1)
Difference Between Groups		3.2		-1.7		-4.1
Control Dep. Var Mean	58.4	47.1	45.6	55.3	52.3	54.4
PANEL C:	Index Spouse Benefits, normalized using z-scores					
Treated	-0.3^{***}	-0.2^{***}	-0.3^{**}	-0.3^{***}	-0.3^{***}	-0.2^{***}
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.1		-0.0		0.1
Control Dep. Var Mean	0.2	0.2	0.2	0.2	0.2	0.0
Demog. Controls	✓	✓	✓	✓	✓	✓
Observations	1,014	810	452	1,372	1,327	497
PANEL D:	Secondary Spouse Benefits					
Treated	-13.3^{***}	-5.4	1.7	-13.2^{***}	-8.7^{***}	-9.5^{*}
	(4.2)	(3.3)	(4.1)	(3.6)	(3.3)	(5.4)
Difference Between Groups		7.9		-14.9^{***}		-0.8
Control Dep. Var Mean	60.3	43.0	35.4	57.1	48.4	58.4
PANEL E:	Secondary Spouse Benefits, controlling for baseline PG					
Treated	-9.2^{***}	-4.7	1.9	-10.0^{***}	-7.4^{**}	-9.5^{**}
	(3.5)	(3.3)	(4.3)	(3.1)	(3.0)	(4.6)
Difference Between Groups		4.5		-11.9^{**}		-2.0
Control Dep. Var Mean	62.2	44.6	36.4	59.2	50.6	59.7
PANEL F:	Secondary Spouse Benefits, normalized using z-scores					
Treated	-0.2^{***}	-0.1	0.0	-0.3^{***}	-0.2^{***}	-0.2^{*}
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.1		-0.3^{**}		0.0
Control Dep. Var Mean	0.1	0.0	-0.1	0.1	0.1	-0.1
Demog. Controls	✓	✓	✓	✓	✓	✓
Observations	1,014	810	452	1,372	1,327	497

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the SS quick calculator. Robust standard errors are in parentheses. Demographics include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses. Panels A-C show the spillovers in index spouse's benefits and D-F show the spillovers in secondary spouse's benefits. Panels A and D show estimates from equation (9), panels B and E show estimates from equation (9) also controlling for the baseline perception gap of the index spouse and panels C and F show the estimates from equation (9) by using within-group normalized (using a z-score) perception gaps as the dependent variable.

TABLE A14: Information spillovers to the secondary spouse by couple-based factors

PANEL A:	Index Spouse Benefits									
	(1) Index Gender Male	(2) Index Gender Female	(3) Total Earn. Below Med	(4) Total Earn. Above Med	(5) Below Med Mar. Length	(6) Above Med Mar. Length	(7) With Child Under18	(8) No Child Under18	(9) Index Mar Sat Above Med .	(10) Index Mar Sat Below Med
Treated	−16.9***	−9.7***	−10.2***	−15.4***	−14.7***	−11.6***	−18.5***	−10.1***	−12.9***	−12.8***
	(4.1)	(3.3)	(3.6)	(3.5)	(3.7)	(3.5)	(4.9)	(3.0)	(4.1)	(3.2)
Difference Between Groups		7.2		−5.3		3.1		8.4		0.1
Control Dep. Var Mean	56.8	50.1	48.9	55.7	54.1	51.6	58.8	50.3	56.4	50.0
PANEL B:	Index Spouse Benefits, controlling for baseline PG									
Treated	−15.3***	−8.8***	−8.8**	−14.6***	−12.6***	−11.0***	−17.1***	−8.7***	−11.3***	−12.2***
	(3.6)	(3.1)	(3.4)	(3.1)	(3.3)	(3.3)	(4.3)	(2.8)	(3.7)	(3.0)
Difference Between Groups		6.5		−5.8		1.6		8.3		−1.0
Control Dep. Var Mean	57.4	50.0	48.9	56.2	54.9	51.5	59.6	50.2	57.3	49.7
PANEL C:	Index Spouse Benefits, normalized using z-scores									
Treated	−0.4***	−0.2***	−0.2***	−0.3***	−0.3***	−0.3***	−0.4***	−0.2***	−0.3***	−0.3***
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.2		−0.1		0.1		0.2		−0.1
Control Dep. Var Mean	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	746	1,075	821	1,003	848	976	598	1,226	868	956
PANEL D:	Secondary Spouse Benefits									
Treated	−13.1***	−9.2***	−8.8**	−11.7***	−10.4***	−11.1***	−13.4**	−8.6***	−10.8**	−10.8***
	(4.7)	(3.5)	(4.1)	(3.8)	(4.0)	(3.9)	(5.6)	(3.2)	(4.6)	(3.4)
Difference Between Groups		3.9		−2.9		−0.7		4.8		−0.0
Control Dep. Var Mean	58.0	48.2	47.8	55.4	52.0	52.3	58.6	49.5	56.2	48.9
PANEL E:	Secondary Spouse Benefits, controlling for baseline PG									
Treated	−9.9**	−6.9**	−4.0	−11.2***	−5.9*	−9.6***	−9.5**	−6.2**	−7.4*	−9.1***
	(4.2)	(3.1)	(3.8)	(3.3)	(3.6)	(3.5)	(4.8)	(2.9)	(3.9)	(3.2)
Difference Between Groups		3.0		−7.3		−3.7		3.2		−1.7
Control Dep. Var Mean	61.2	48.9	48.6	58.0	53.0	54.9	62.6	50.2	58.2	50.7
PANEL F:	Secondary Spouse Benefits, normalized using z-scores									
Treated	−0.3***	−0.2***	−0.2**	−0.2***	−0.2***	−0.2***	−0.3**	−0.2***	−0.2**	−0.2***
	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Difference Between Groups		0.1		−0.0		−0.0		0.1		−0.0
Control Dep. Var Mean	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	746	1,075	821	1,003	848	976	598	1,226	868	956

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the SS quick calculator. Robust standard errors are in parentheses. Demographics include the ethnicity, education, gender, age group, financial literacy and numeracy of both the index and the secondary spouses. Panels A-C show the spillovers in index spouse's benefits and D-F show the spillovers in secondary spouse's benefits. Panels A and D show estimates from equation (9), panels B and E show estimates from equation (9) also controlling for the baseline perception gap of the index spouse and panels C and F show the estimates from equation (9) by using within-group normalized (using a z-score) perception gaps as the dependent variable.

TABLE A15: Spillovers to the secondary spouse with indices - Multiple hypothesis testing

	Index Sp Benefits				Sec Sp Benefits			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated	-10.5^{***}	-9.8^{***}	-10.0^{***}	-10.7^{***}	-6.8^{**}	-6.8^{**}	-6.7^{***}	-7.1^{**}
	(2.5)	(2.5)	(2.3)	(2.6)	(2.8)	(2.8)	(2.6)	(2.8)
Treated × Lack of cogn barriers	-1.1				-4.4			
	(2.5)				(2.7)			
Treated × Lack of comm frictions		-8.5^{***}				-10.2^{***}		
		(2.6)				(2.8)		
Treated × Gains from sharing			-10.2^{***}				-9.3^{***}	
			(2.7)				(3.0)	
Treated × Equal couples				-0.4				-2.6
				(2.6)				(2.8)
Demog. Controls	✓	✓	✓	✓	✓	✓	✓	✓
Control Dep. Var Mean	52.8	52.8	52.8	52.8	52.2	52.2	52.2	52.2
Adj. R-Squared	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Observations	1,824	1,824	1,824	1,824	1,824	1,824	1,824	1,824

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the SS quick calculator. Robust standard errors are in parentheses. Demographics include the ethnicity, education, gender, age group, financial literacy for both the index and the secondary spouses.

TABLE A16: Spillovers to the secondary spouse with all indices and index spouse's baseline perception gaps

	Index Sp Benefits		Sec Sp Benefits	
	(1)	(2)	(3)	(4)
Treated	-10.9^{***}	-13.4^{**}	-7.1^{***}	-12.1^{**}
	(2.3)	(5.2)	(2.4)	(5.3)
Treated × Lack of cogn barriers	2.4	1.9	-1.8	-2.3
	(2.2)	(2.3)	(2.4)	(2.4)
Treated × Lack of comm frictions	-8.3^{***}	-7.8^{***}	-10.5^{***}	-10.4^{***}
	(2.5)	(2.5)	(2.7)	(2.7)
Treated × Gains from sharing	-8.9^{***}	-8.8^{***}	-6.4^{**}	-7.9^{***}
	(2.6)	(2.8)	(2.9)	(3.0)
Treated × Equal couples	0.5	0.3	-1.3	-2.0
	(2.3)	(2.4)	(2.5)	(2.4)
Demog. Controls	✓	✓	✓	✓
Couple-based Factors		✓		✓
Control Dep. Var Mean	52.8	52.8	52.2	52.2
Adj. R-Squared	0.2	0.3	0.3	0.3
Observations	1,824	1,824	1,824	1,824

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable in all columns is the absolute baseline perception gap as a share of predicted age 67 benefits by the SS quick calculator. Robust standard errors are in parentheses. The regression also controls for the index spouse's baseline perception gaps in their beliefs about own (columns (1) and (2)) or in spouse's (columns (3) and (4)) benefits. Demographics include the ethnicity, education, gender, age group, financial literacy for both the index and the secondary spouses.

Appendix B Survey Instrument

FIGURE B1: Experimental design

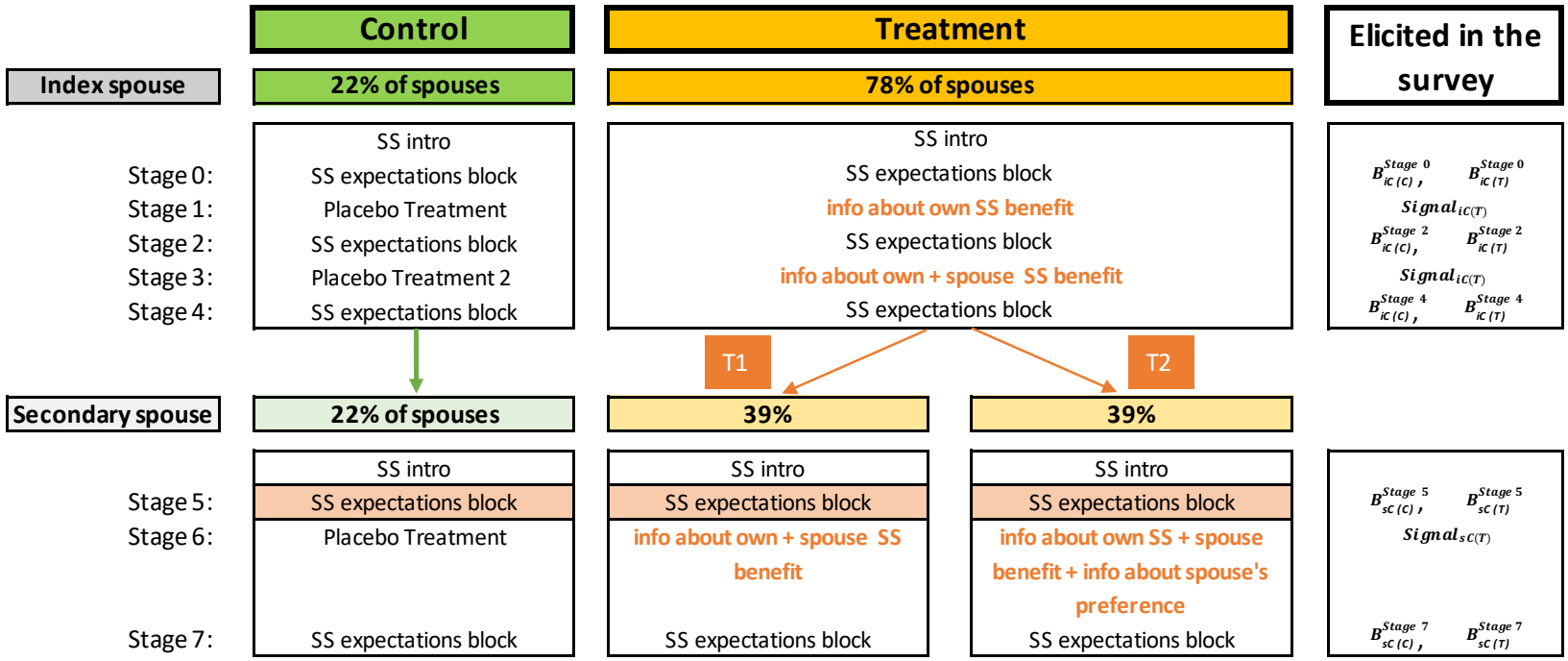


FIGURE B2: Eliciting expectations about own Social Security benefits

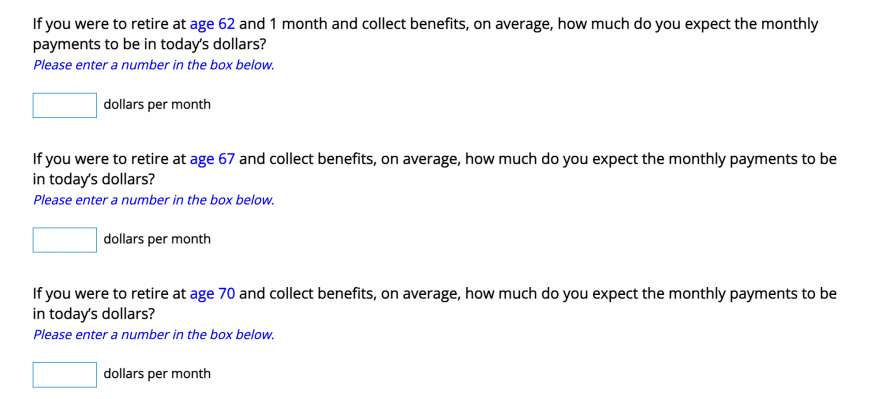


FIGURE B3: Eliciting expectations about apouse's Social Security benefits

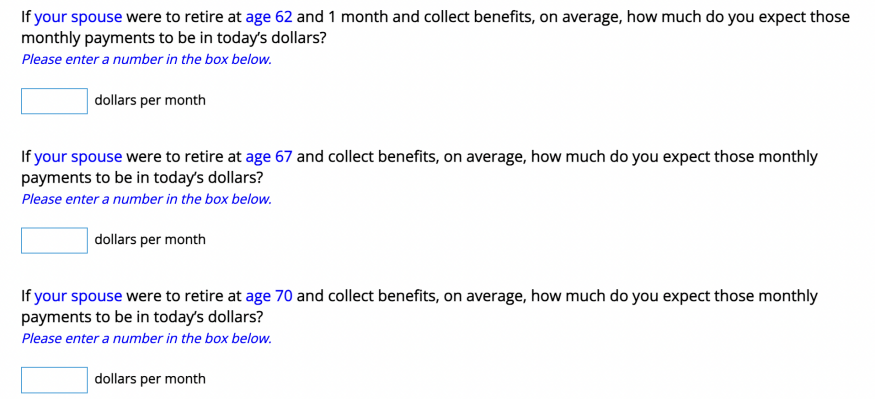
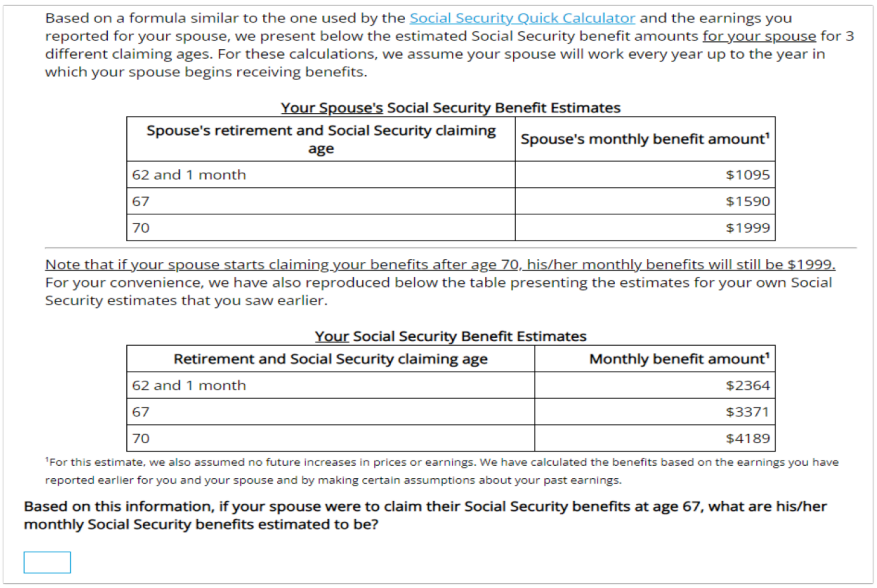


FIGURE B4: Information treatment on Social Security benefits



Based on a formula similar to the one used by the Social Security Quick Calculator and the earnings you reported for your spouse, we present below the estimated Social Security benefit amounts for your spouse for 3 different claiming ages. For these calculations, we assume your spouse will work every year up to the year in which your spouse begins receiving benefits.

Your Spouse's Social Security Benefit Estimates

Spouse's retirement and Social Security claiming age	Spouse's monthly benefit amount[1]
62 and 1 month	$1095
67	$1590
70	$1999

Note that if your spouse starts claiming your benefits after age 70, his/her monthly benefits will still be $1999.
For your convenience, we have also reproduced below the table presenting the estimates for your own Social Security estimates that you saw earlier.

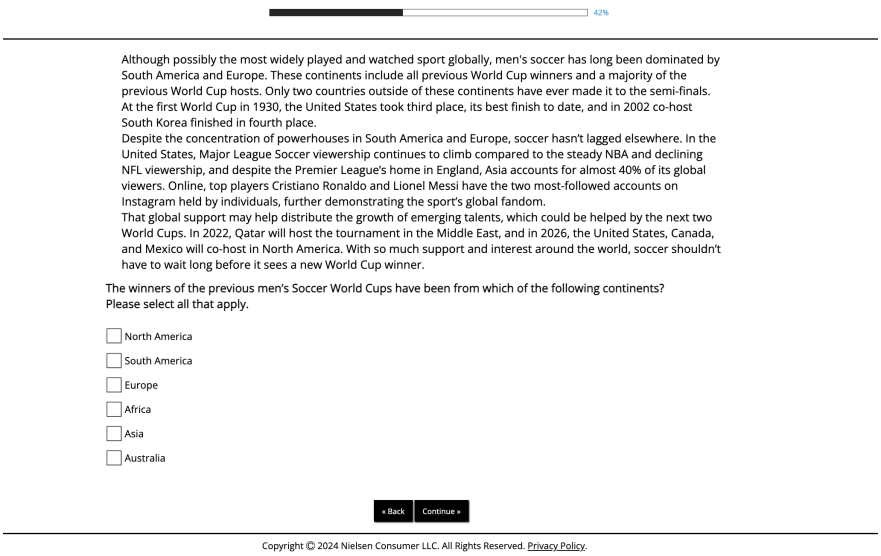
Your Social Security Benefit Estimates

Retirement and Social Security claiming age	Monthly benefit amount[1]
62 and 1 month	$2364
67	$3371
70	$4189

[1]For this estimate, we also assumed no future increases in prices or earnings. We have calculated the benefits based on the earnings you have reported earlier for you and your spouse and by making certain assumptions about your past earnings.

Based on this information, if your spouse were to claim their Social Security benefits at age 67, what are his/her monthly Social Security benefits estimated to be?

FIGURE B5: Placebo treatment I on Social Security benefits



42%

Although possibly the most widely played and watched sport globally, men's soccer has long been dominated by South America and Europe. These continents include all previous World Cup winners and a majority of the previous World Cup hosts. Only two countries outside of these continents have ever made it to the semi-finals. At the first World Cup in 1930, the United States took third place, its best finish to date, and in 2002 co-host South Korea finished in fourth place.

Despite the concentration of powerhouses in South America and Europe, soccer hasn't lagged elsewhere. In the United States, Major League Soccer viewership continues to climb compared to the steady NBA and declining NFL viewership, and despite the Premier League's home in England, Asia accounts for almost 40% of its global viewers. Online, top players Cristiano Ronaldo and Lionel Messi have the two most-followed accounts on Instagram held by individuals, further demonstrating the sport's global fandom.

That global support may help distribute the growth of emerging talents, which could be helped by the next two World Cups. In 2022, Qatar will host the tournament in the Middle East, and in 2026, the United States, Canada, and Mexico will co-host in North America. With so much support and interest around the world, soccer shouldn't have to wait long before it sees a new World Cup winner.

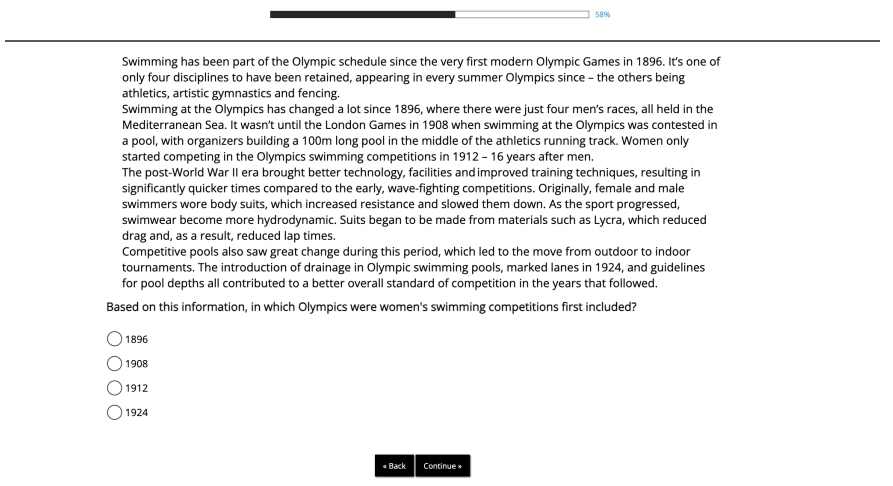
The winners of the previous men's Soccer World Cups have been from which of the following continents? Please select all that apply.

- ☐ North America
- ☐ South America
- ☐ Europe
- ☐ Africa
- ☐ Asia
- ☐ Australia

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FIGURE B6: Placebo treatment II on Social Security benefits



Appendix C Open-ended Questions

Almost all respondents who were re-surveyed (94%) provided an answer to the open-ended question. We utilized GPT-4 to identify the key themes and analyze their prevalence and content. Four main themes emerge: frequency of discussion, content of discussion, roles in finance, and conflict. We created word clouds separately for men and women for each of these themes in Figure C1.

Regarding how often couples discuss financial issues, both male and female participants reported discussing finances regularly, though the frequency varied. Men typically mentioned monthly discussions, often centered around significant financial decisions such as investments, savings, and retirement planning. Women, on the other hand, tended to report more frequent conversations, focusing not only on long-term goals like retirement but also on managing day-to-day expenses and savings strategies. This difference in frequency is seen in the word clouds where "monthly" is the most common word for men, while "weekly" is the most common for women. In many cases, women handle the finances and keep their partners informed regularly, discussing how to pay bills and save for major life events.

The content of financial discussions for both men and women frequently revolved around managing savings, retirement planning, paying bills, and handling both short-term and long-term financial goals (see words "saving", "retirement" and "bill" in women and men's word clouds). Men also highlighted conversations about managing expenses for vacations and deciding where to allocate or save money. Similarly, women emphasized the importance of savings, timely bill payments, and ensuring that both partners stayed on track with financial goals, particularly reducing debt and maintaining financial stability.

The roles in managing household finances varied for both men and women. Some men reported that their spouses primarily handled financial matters, with them checking in periodically or for major decisions. Others noted a shared approach, where both partners contributed equally to decision-making, especially for large purchases or investments. Women, meanwhile, often mentioned taking the lead in financial decisions, managing day-to-day finances, and offering financial advice, which their spouses typically followed. In many cases, financial decision-making was collaborative, with both partners involved in major financial planning.

Both men and women acknowledged that financial discussions could sometimes lead to conflict. Men often mentioned stress arising from differing financial philosophies, with one partner more focused on saving while the other preferred to spend more freely. These differences sometimes caused tension, but couples often worked through it by making joint decisions. Similarly, women reported that financial stress could lead to arguments (see word clouds), with some preferring to avoid financial discussions altogether to prevent conflict. In cases of conflict, both partners generally sought ways to find common ground and shared responsibility for managing finances.

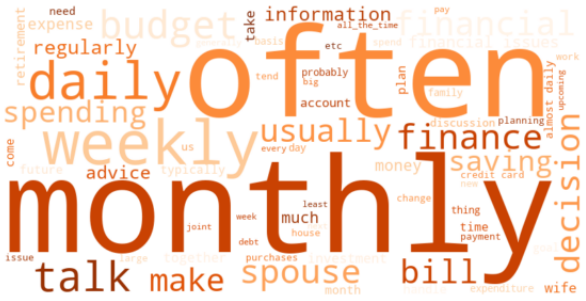
FIGURE C1: Communication about financial issues between spouses

(A) Frequency of discussions

Women



Men



(B) Content of discussions

Women

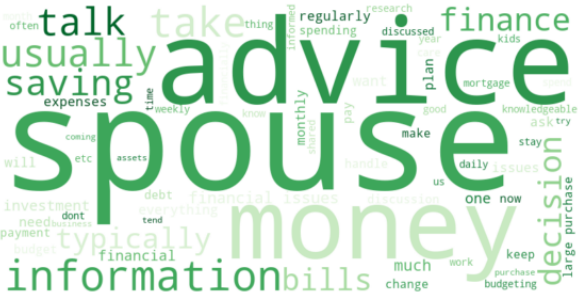


Men



(C) Roles in managing household finances

Women



Men



(D) Challenges in communication

Women



Men



Note: Figures show word clouds created using GPT-4 about different themes around how spouses communicate about financial issues.