

Schuetz, Jana

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Beliefs about the Gender Pension Gap*

Jana Schuetz[†]

Friedrich Schiller University Jena

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Abstract

I conduct an online survey of 3,000 respondents in the United States to examine individuals' beliefs about the gender pension gap. By including an information provision experiment in which treated respondents are informed about the size of the gender pension gap, I examine whether receiving this information causally affects respondents' perceptions of the fairness and drivers of the gender pension gap and their support for policies aimed at reducing it. I find that most respondents underestimate the gender pension gap and that treated respondents are less likely to perceive the gender pension gap as fair. In addition, treated respondents perceive the unequal distribution of care work and gender differences in wages as more important drivers of the gap, and their demand for remedial policies such as targeted financial education increases significantly. In terms of heterogeneity, I find that female respondents are generally less affected by the treatment than male respondents when asked about their policy views, although the treatment affects male and female respondents' beliefs and perceptions about the gender pension gap similarly.

JEL classification: J26, J16, H55, C90

Keywords: gender pension gap, survey experiment, information provision, pension reform preferences

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[†]Friedrich Schiller University Jena, Carl-Zeiss-Str. 3, 07743 Jena, Germany, email: jana.schuetz@uni-jena.de

1 Introduction

Gender inequality exists not only in labor market outcomes but also in old age. Gender inequality during retirement is reflected in the gender pension gap, that is, the gender differences in retirement income among pensioners across not only public but also private (occupational and individual) pensions. It is calculated as the difference between the average retirement income of a man and a woman.¹ The average gender pension gap in OECD countries is 26 percent but varies from 3 percent in Estonia to 47 percent in Japan (OECD 2021b). This gap is particularly important in focusing on the risk of poverty in old age, as women face a higher old-age poverty risk than men (OECD 2021a).

The gender pension gap is closely tied to the gender earnings gap during the working life, determined by factors such as the number of hours worked per week (full-time versus part-time), differences in career paths and experience and the share of women in the labor force (OECD 2021b; Blackburn et al. 2016). While gender differences in earnings and wages have been extensively studied (see, for example, Blau and Kahn (1994, 2007, 2017) and Settele (2022)), evidence on the gender pension gap is rather scarce, even though this gap is not only affected by factors related to the labor market directly. Additional factors contributing to the gender pension gap include gender differences in participation in pension plans (Lusardi and Mitchell 2008), in pension assets and in decisions about the payout phase of retirement. However, the gender pension gap may also be affected by gender differences in longevity or risk preferences (OECD 2021b). In particular, as pension systems shift from defined benefit to defined contribution plans (Karamcheva and Perez-Zetune 2023) and employees have greater responsibility for the investment of their pension savings, these gender differences may have a large impact on the gender pension gap, as women tend to choose less risky investment strategies (Watson and McNaughton 2007).

Little is known about whether individuals are aware of the gender pension gap, what reasons they see for it and whether they perceive it as fair. The question of fairness arises because it could be argued that the gender pension gap is based on decisions made during the labor market period and therefore reflects solely factors that can be influenced by women. The differences could then be regarded as fair. It could also be argued that since women tend to live longer than men, they should receive less per year to achieve the same total retirement income, which could be another reason why the gender pension gap could be perceived as fair. On the other hand, it could be argued that these decisions are based on the social environment, which cannot be influenced by the individual (Lundberg 2022), and therefore, the differences could be considered unfair. It is important to consider people's views on fairness, as this is likely to influence their demand for policy. Individuals who view the gender pension gap as fair for the reasons discussed above are unlikely to consider policy interventions to be necessary.

This paper examines which beliefs individuals hold about the current size of the gender pension gap and which factors they consider when thinking about the gap. In addition, the paper investigates whether receiving information about the size of the gender pension gap changes people's perceptions of the effects that the gap has on their own lives, its perceived fairness and drivers and their associated policy demand. Ultimately, the goal is to understand whether providing information about the gender pension gap can affect perceptions of it and, if so, whether this translates into an adjusted demand for policies that could help reduce the gap.

¹It is calculated without adjustment for factors such as age or previous labor force participation.

I conduct a large online survey with 3,000 respondents in the United States and implement an information provision experiment. Within the survey, respondents are randomly selected into either the control group or the treatment group. While both groups are asked about their beliefs about the current gender difference in annual retirement income and the main factors that come to mind when they think about the gender pension gap (i.e., their explanations for it), only the treatment group is informed about the actual size of the gender pension gap in the United States, which is 34 percent according to the OECD (2021b). I then ask respondents about their fairness views, perceptions of the drivers of the gender pension gap and policy views and analyze whether treated respondents answer differently from respondents in the control group.

The main findings are summarized as follows: First, I find that the majority of respondents assume that men's and women's average annual pensions are more equal than they are in reality. The main factors that respondents consider when thinking about the gender pension gap include the gender wage gap explicitly and factors such as family choices, discrimination, social norms and career choices, which often impact gender differences in both wages and pensions.

In the second step, I show that respondents who received information about the size of the gender pension gap are more likely to agree that the gender pension gap directly affects their own lives and less likely to believe that the gap is fair. In addition, they perceive the unequal distribution of care work and gender differences in wages as important drivers of the gender pension gap. The treatment also affects their policy demand. When informed about the size of the gender pension gap, respondents are more likely to support policies that encourage targeted financial education and equal splitting of pension benefit entitlements between spouses.

Finally, I examine potential mechanisms to understand whether the above treatment effects are driven by a particular subset of respondents. I find that the treatment effects regarding the demand for policy interventions appear to be driven by male respondents and Republicans, even though they do not hold different prior beliefs about the size of the gender pension gap and even though they do not update their beliefs differently. The policy demand of female respondents, Democrats and independents appears to be largely inelastic to the treatment. Thus, the treatment has a particularly strong effect on those respondents who are initially less concerned about gender inequality.

This study contributes to the existing literature in two ways: First, I contribute to the understanding of people's beliefs about the gender pension gap and how people reason about it, which has not been investigated before. I provide new insights into the reasoning behind beliefs about the gender pension gap. In doing so, I contribute to an evolving stream of research that aims to better understand the subjective models on which people act and reason (see, for example, Ferrario and Stantcheva 2022; Andre et al. 2022). I also contribute to the literature on gender inequality by analyzing whether factors such as gender differences in risk preferences (Croson and Gneezy 2009; Arano et al. 2010), occupational choices (Keller 2019; Gabriel and Schmitz 2007), child care (Kleven et al. 2019; Barigozzi et al. 2018) and career opportunities (Cullen and Perez-Truglia 2023; Bertrand et al. 2010), which could affect gender differences in wages and pensions and are widely discussed in the existing literature, are also factors that people in the general population consider when thinking about gender inequality in retirement income.

Second, I analyze the causal effect of providing information about the gender pension gap on fairness

views, perceptions of drivers of the gender pension gap, and policy demand. In doing so, I add to the literature using information provision experiments to evaluate the effect of information about inequality on concerns about inequality and policy preferences. Previous studies have shown that providing survey respondents with pessimistic information about income inequality increases their inequality concerns but has a weaker effect on their demand for redistributive policies (see Ciani et al. (2021) for a meta-study). I examine whether the pattern observed in general income inequality extends to gender inequality in retirement income. Related research in this specific area of gender inequality in income includes a study by Settele (2022), which analyses the effect of providing information about the gender wage gap on policy preferences in the United States, and a study by Casarico et al. (2023), where the effect of information about gender gaps in earnings and pensions on policy preferences is analyzed for Germany. While the policies suggested by Settele (2022) and Casarico et al. (2023) primarily focus on policy measures aimed at reducing gender differences in the labor market, I focus on policies directly targeting retirement savings and retirement income. In addition to adding new evidence on policy demand, I provide insights on the effect of information about the size of the gender pension gap on perceptions of the drivers of the gap, which has not been studied before.

The remainder of this paper is organized as follows: Section 2 introduces the survey and the sample, as well as the design of the information provision experiment, and Section 3 provides descriptive evidence on beliefs about the gender pension gap. In Section 4, I discuss my estimation strategy and hypotheses. Finally, in Section 5, I present results on the causal effect of providing information about the size of the gender pension gap. Section 6 concludes the paper.

2 Data and Experimental Design

2.1 Sample and Survey Structure

I conduct an online survey in the United States to examine the effect of providing information about the gender pension gap on perceptions of the direct effects and fairness of the gap and of its drivers and on the preferences for policies aimed at reducing the gap. This section discusses the sample recruitment, sample selection and structure of the survey. The survey was conducted in December 2022, and the sample is quota-representative of the US population over the age of 18 in terms of age, gender, US census region and education. The median survey length was approximately 9.5 minutes. The average age of the respondents is 48 years, and half of the respondents are female. Ninety-five percent were born in the United States, and more than one-third have a 4-year college degree or higher. In addition, approximately half of the respondents are married, 30% are Republicans, and 33% are Democrats. In Table A.1, I compare the sample characteristics to those of the population in the United States. It is evident that, while the sample is representative for the targeted characteristics, the sample population has on average lower income than the actual population and less often has a migration background. As income is an especially relevant variable in the context of my study, I generate survey weights to correct for the high share of low- and middle-income respondents and use them as a robustness check for my main results.

After confirming that they have read the instructions and wish to participate, all respondents are asked to answer some sociodemographic questions, e.g., about their age, gender, and US census region. These questions are used to create the quota-representative sample. They are followed by an

attention check, which is used to exclude respondents who fail the check. For the main analysis, I further exclude respondents for whom I do not have complete information on all outcomes and control variables because of respondents not answering some of the questions. I have to exclude 36 respondents, which leaves me with a sample of 2964 observations. I provide more details on the attention check, structure of the survey and sample selection in Appendix C.

I adopt several measures to reduce concerns about experimenter demand effects (Haaland et al. 2023):

- 1) To forestall selection based on the topic of the survey, I inform respondents only that they are about to take part in a scientific survey on various social and economic issues in the United States.
- 2) To encourage honest answers, I tell them that honest answers are the most important factor for the success of the research and that they will be contributing to societal knowledge regardless of their political views.
- 3) Last but not least, I inform them that the data collection is anonymous and that their participation is voluntary.

The survey also includes a set of five financial literacy questions, including the “Big Three” as introduced by Lusardi and Mitchell (2008), which are questions designed to measure individuals’ understanding of the basic mathematical concepts of compound interest, inflation, and risk diversification. In addition, the survey includes two retirement-specific questions addressing employer match and tax benefits of 401(k) plans introduced by Clark et al. (2014). Based on these five questions, I calculate an additive index for each survey respondent that states the number of correct responses. I divide the respondents into those with high financial literacy (those with a score above the mean) and those with low financial literacy (those with a score below the mean). In Appendix C.4, I provide more details about how I measure financial literacy and a comparison to earlier studies.

2.2 Experimental Design

The survey includes an information provision experiment (see Haaland et al. 2023). The experimental design consists of four steps: elicitation of prior beliefs, information provision, outcomes in the form of perceptions about the gender pension gap and policy demand, and elicitation of posterior beliefs. Respondents are randomly assigned to either the control group or the treatment group. The two groups differ only with respect to the provision of information in the second step. Assigning respondents randomly to either the control or the treatment group allows me to interpret the treatment effects to be causal. The balance test as shown in Table A.2 confirms the success of the randomization.

Step 1 – Prior Beliefs: In the first step, I elicit respondents’ prior beliefs about gender differences in retirement income, which I refer to and define in the questionnaire as the gender pension gap.² I elicit their prior beliefs by asking them to think of all individuals in the United States who receive a retirement income from public and private (occupational and individual) pensions. Then, I ask them to think about the amount that a woman received in 2019 for every \$100 a man received. To further ease the question, I include a hint that suggests to first consider whether they believe a woman receives more or less than a man and then choose a number that is correspondingly larger or smaller than \$100.³ For the analysis, I winsorize (as preregistered) prior beliefs to \$200 to deal

²The definition is provided on the survey page, where respondents’ prior beliefs are elicited by the first sentence, which reads as follows: “The topic of this question is the gender difference in retirement income (gender pension gap) in the United States.”

³The question is based on the elicitation of prior beliefs about the gender wage gap by Settele (2022) and about gender gaps in earnings and pensions by Casarico et al. (2023).

with outliers. In addition to their prior beliefs about the size of the gender pension gap, I also ask respondents about the main factors that come to mind when they think about the gender pension gap. This allows me to obtain a better understanding of the broad considerations that respondents have when it comes to the gap.

Step 2 – Provision of Information: After their prior beliefs have been elicited, respondents in the treatment group receive information about the pension a woman receives for every \$100 a man receives, which is \$66. The treatment reminds respondents of their own estimate before telling them the correct value according to the OECD (2021b). This value is based on the Luxembourg Income Study (LIS) and the Luxembourg Wealth Study (LWS) databases, both of which are cross-national databases. The gap refers not only to public pensions but also to private pensions (occupational and individual) and captures the difference in the average retirement income of a man and a woman. In addition to the text telling them about the actual size, I provide respondents with a picture displaying the \$100 that a man receives compared to the \$66 a woman receives on average to simplify the information (see Figure A.1). The control group does not receive any information. However, this has very little impact on the median survey length: the median length for treated respondents is 4 seconds higher than that for respondents in the control group.

Step 3 – Direct Effects and Fairness, Drivers and Policy Demand: In the third step, respondents are asked three sets of questions about (1) their perceptions of the direct effects on respondents' lives and fairness of the gender pension gap, (2) their perceptions of the drivers of the gender pension gap and (3) their policy demand. All outcome variables are elicited on an 11-point Likert scale ranging from 0 “strongly disagree” to 10 “strongly agree”. For the analysis, I standardize the outcomes by using the mean and standard deviation of the control group to ease interpretation of the results. The hypotheses for the analysis are provided in Section 4.

Direct effects and fairness of the gender pension gap – I start analyzing the impact of information about gender differences in retirement income by asking respondents two questions related to the gender pension gap: to what extent they agree that the gender pension gap has important direct effects on their own life and whether they perceive a woman's annual retirement income relative to a man's to be fair. These questions allow me to see whether the treatment affects respondents. The answers also show whether the topic is relevant to them and whether the treatment influences their general perception about it. If I cannot detect a treatment effect for these general outcomes, I would not expect to find a treatment effect for the following sets of outcomes.

Drivers of the gender pension gap – In the following set of questions, respondents are asked whether they think that a set of factors have a large impact on the gender pension gap. The potential drivers include the unequal distribution of care work, gender differences in earnings and wages, the chosen profession and qualification, differences in hours worked per week and societal norms; all of these are globally considered important drivers of the gender pension gap (OECD 2021b).⁴ Asking respondents directly about the drivers of the gap allows me to understand whether they consider all, some, or none of the drivers to be more important after receiving the treatment. This is important for understanding the mechanisms by which respondents respond to the treatment.

Policy demand – The last set of outcomes asks respondents about their views toward specific policies

⁴The selection of these drivers is based on frequent answers to an open-ended question for the case of Germany by Casarico et al. (2023).

targeting retirement savings and retirement income. The six policy measures can be divided into two groups, where the first group specifically targets policies on occupational pensions while the second group includes broader questions on policy tools and the design of pension policies. Regarding policies on occupational pensions, respondents are asked to state whether they agree that i) all employers should offer an occupational retirement plan, ii) participation should be mandatory for employees and iii) all employees should be eligible for the plan and for employer matched contributions.⁵ The second group of policies includes whether iv) financial education and information about pensions should be tailored to the needs of individual groups (e.g., by designing courses specifically for women), v) retirement benefit entitlements should be split equally between spouses and vi) everyone should receive the same pension from Social Security (regardless of how much someone has contributed). Each question includes a short explanation or example to ensure that respondents understand the broader implications of the respective policy. All policy measures are based on recommendations on how to reduce the gender pension gap from the OECD (2021b), except the last measure about Social Security.

Step 4 – Posterior Beliefs: At the end of the survey, I ask all respondents again about their beliefs about the size of the gender pension gap. This allows me to check whether the respondents in the treatment group actually read the information and kept it in mind during the survey and updated their beliefs accordingly. The elicitation of prior beliefs from both groups further enables me to calculate learning rates as the difference in belief updating between respondents in the treatment and control groups.

3 Beliefs about the Gender Pension Gap

In this section, I examine whether respondents differ in their beliefs about the size of the gender pension gap (Section 3.1) and in the factors that they consider when thinking about this gap (Section 3.2). To assess treatment effects of providing information about the size of the gender pension gap, it is important to first understand what beliefs individuals initially hold and whether these beliefs differ across subgroups.

3.1 Beliefs about the Size of the Gender Pension Gap

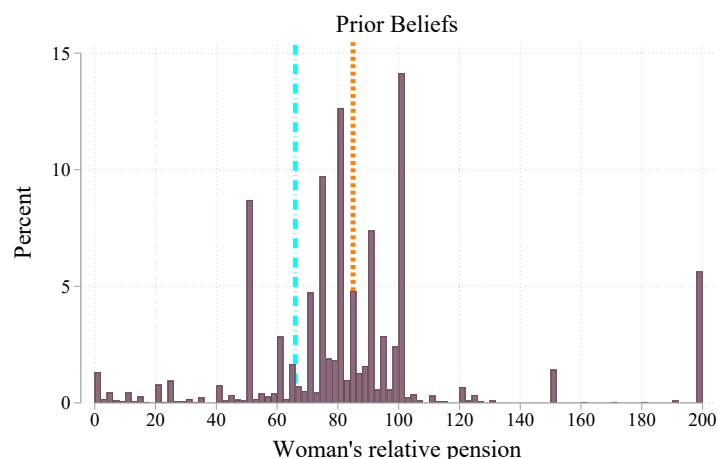
People hold different beliefs about gender differences in income (Settele 2022; Casarico et al. 2023)—this is true not only for labor income but also for retirement income, as shown in Figure 1. When respondents are asked about how much retirement income a woman in the United States receives on average for every \$100 a man receives, the mean winsorized prior belief is \$84.91 (as indicated by the dotted orange line) with a standard deviation of 36.79.⁶ The correct answer is \$66 (as indicated by the dash-dotted blue line), which corresponds to a gender difference of 34%, implying that on average respondents overestimate the relative retirement income of a woman by approximately \$19. The share of respondents who overestimate a woman’s relative pension (and thus underestimate the gap) is 78.4%, while 21.3% of respondents underestimate it. Out of those who overestimate, 10.7% hold prior beliefs above \$100, implying that they think a woman receives on average a higher retirement income than a man.⁷

⁵Not all employers in the United States offer occupational retirement plans. Of those that do, some have restrictions such as a minimum number of months/hours worked at the company to be eligible to participate.

⁶The mean prior belief before winsorization is \$90.41 with a standard deviation of 65.89.

⁷Those who overestimate a woman’s relative pension overestimate it by \$30 on average, while those who underestimate it do so by \$23 on average.

Figure 1: Prior Beliefs about a Woman's Relative Pension



Notes: This figure shows respondents' prior beliefs about a woman's relative pension. Beliefs are winsorized at \$200. The orange (dotted) line indicates the mean of the winsorized beliefs about a woman's relative pension (\$85), while the blue (dash-dotted) line indicates the actual value, which is \$66.

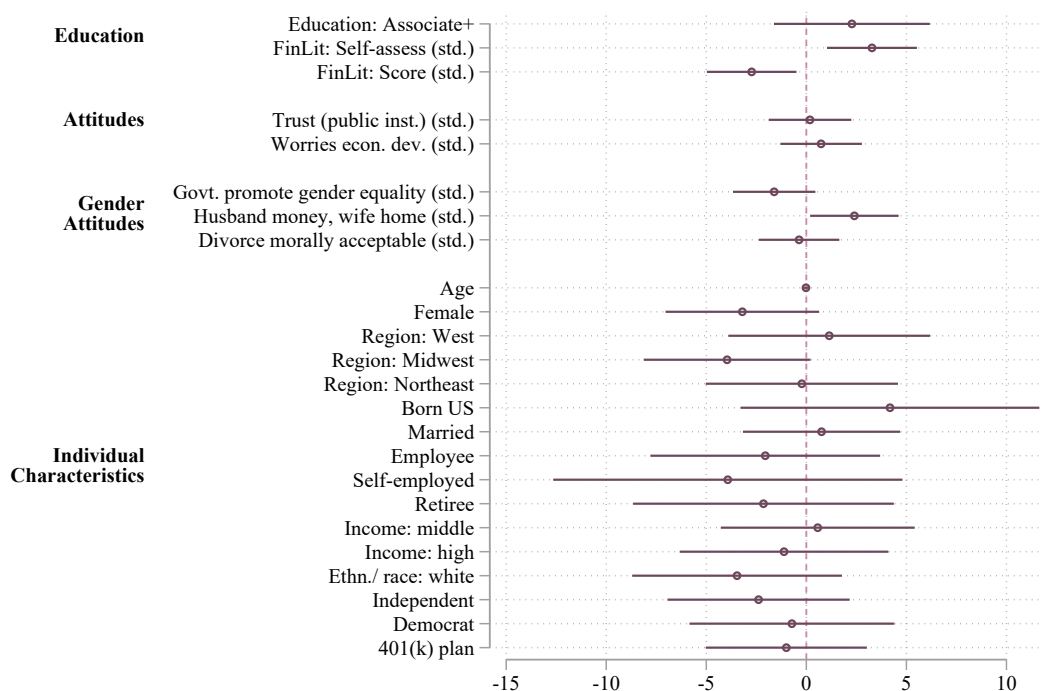
Figure 2 shows correlations between respondents' attitudes and characteristics and their winsorized prior beliefs.⁸ The first set of variables shows several measures of education. Respondents with an associate's (two-year college) degree or higher (*Education: Associate+*) do not appear to hold different prior beliefs. Higher self-assessed financial and pension literacy (*Finlit: Self-assess*), on the other hand, is correlated with higher prior beliefs about a woman's relative pension. Focusing instead on the financial literacy score shows that respondents with above-average financial literacy (*FinLit: Score*) hold significantly lower beliefs about a woman's relative pension, implying that they are closer to the true value. The next set of variables are general attitudes and gender attitudes. These attitudes do not appear to be strongly correlated with the prior beliefs, with one exception: respondents who agree more that it is the husband's job to earn money and the wife's job to look after the home and family (*Husband money, wife home*) hold higher prior beliefs, implying that they think that the gender gap in retirement income is not as large. The final set of variables that I include in the analysis are individual characteristics, which do not appear to be strongly correlated with respondents' prior beliefs.

Additionally, I analyze whether respondents update their beliefs after receiving the treatment, which informs them of the correct value. The distribution of posterior beliefs is shown in Figure 3. It can be seen that, after they receive this information, the responses of treated individuals are bundled at and around the correct value of \$66 (dash-dotted blue line), while the distribution of responses of individuals in the control group looks similar to the distribution of prior beliefs shown in Figure 1. A between-subject t-test confirms that respondents in the treatment group indeed hold significantly lower posterior beliefs than respondents in the control group. Furthermore, respondents in both groups update their beliefs in response to the survey, but while respondents in the control group lower their beliefs by \$2.4, respondents in the treatment group lower their beliefs by \$10.2 on average.⁹

⁸See Appendix D for a description of all variables.

⁹Of the respondents in the control group, 993 out of 1476 have posterior beliefs that are identical to their prior beliefs. In the treatment group, 294 of 1488 respondents do not update their beliefs at all. This result is driven by respondents' with high self-assessed financial and pension knowledge, low financial literacy, conservative gender attitudes and low income, i.e., primarily those respondents who also hold initially higher prior beliefs.

Figure 2: Correlates of Prior Beliefs about a Woman’s Relative Pension



Notes: The figure presents the point estimates and the 99% confidence intervals of the coefficients for the correlates of respondents’ prior beliefs about the relative pension of a woman compared to a man’s.

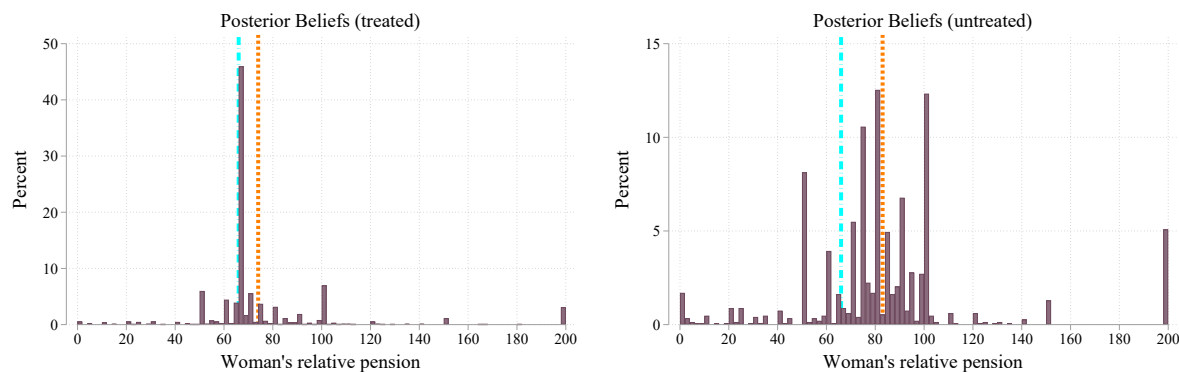
This analysis shows that respondents do indeed update their beliefs about a woman’s relative pension in response to treatment. I provide further evidence on the effect of receiving information about the size of the gender pension gap on posterior beliefs in Section 5.

3.2 Beliefs about Main Factors behind the Gender Pension Gap

Individuals not only hold different beliefs about the size of the gender pension gap but also consider different factors when expressing their beliefs. After respondents state their prior beliefs about the size of the gender pension gap, but before the treatment group receives the information, I ask respondents an open-ended question: “When you think about the size of the gender pension gap in the United States, what are the main factors that come to your mind?” Before asking the question, I emphasize that there are no right or wrong answers and that their opinions and thoughts are important. To analyze these answers, I follow an inductive approach. I develop a coding scheme based on the answers to the open-ended question and manually code and categorize each reply. The coding scheme including examples is provided in Table A.5. For the categorization, I take the replies as they are and categorize them by the factors mentioned. If a respondent, for example, mentions that there are gender differences in the choice of profession, I code it into the category *Profession*, even though it will likely also affect other categories such as the gender wage gap. As some respondents mention more than one factor in their answer (21%), the number of categories in which an answer can be placed is not limited. After coding the responses, I create indicator variables equal to one if a category is mentioned in a response and zero otherwise. I discuss responses that cannot be coded into a meaningful category in Appendix C.5.

The stated factors impacting the gender pension gap include, among others, gender differences in

Figure 3: Posterior Beliefs about a Woman's Relative Pension



Notes: This figure shows respondents' winsorized posterior beliefs about a woman's relative pension. The posterior beliefs of treated respondents are shown on the left-hand side, while the right-hand side shows posterior beliefs of respondents in the control group. The orange (dotted) line indicates the mean of winsorized beliefs about a woman's relative pension (\$74 for treated respondents, \$83 for respondents in the control group), while the blue (dash-dotted) line indicates the actual value, which is \$66.

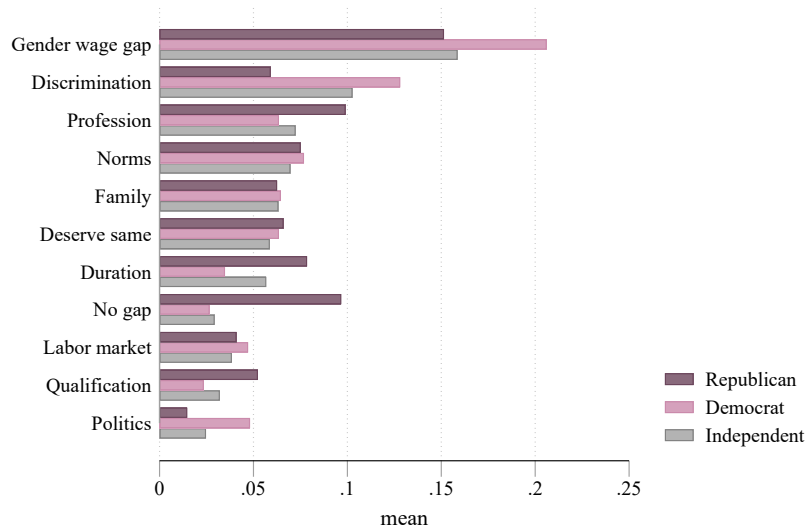
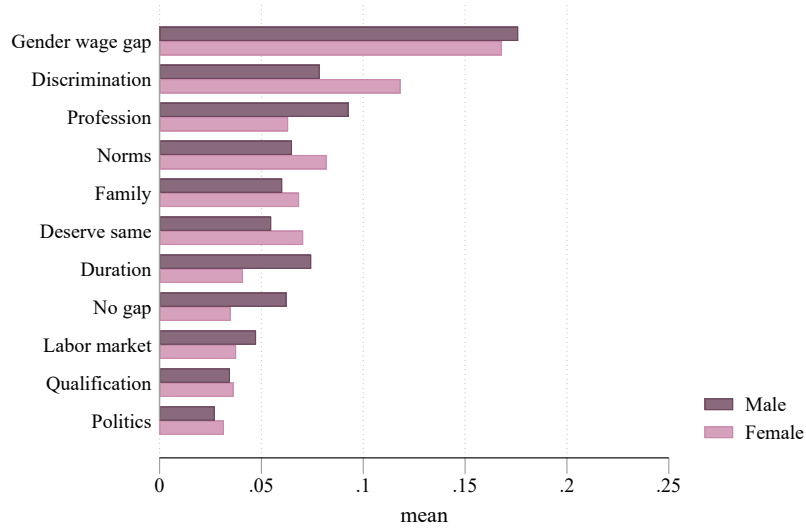
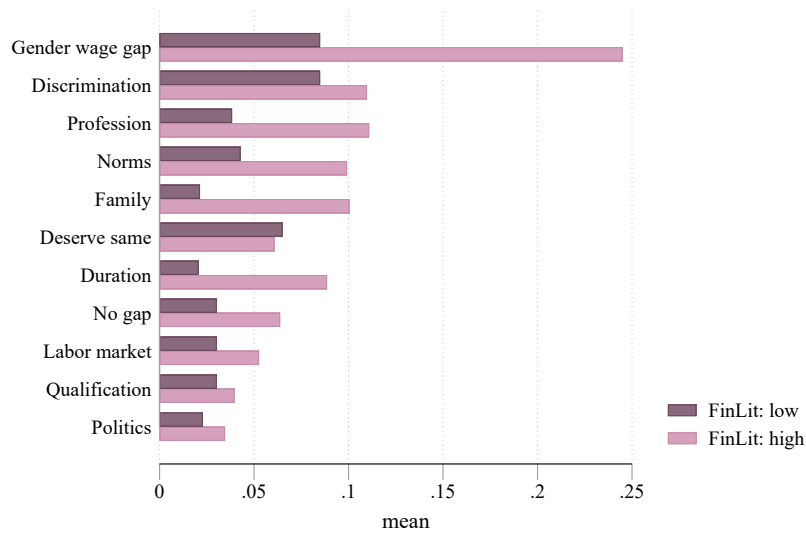
the labor market, parenthood, social norms and discrimination.¹⁰ Related to the labor market, respondents cite various reasons. A share of 17% of all respondents states explicitly that the gender wage gap is a main factor that they consider when thinking about the gender pension gap. However, respondents also mention other factors that impact both the gender gap in wages and in pensions simultaneously, such as different choices of profession (and therefore also in the choice of jobs with and without pensions) and the income level of the respective jobs. Furthermore, respondents cite differences in hours worked and topics related to leadership, such as male networks and gender differences in leadership positions and in career advancement. One hundred fifty-seven respondents (5%) claim that there is no gap, while 12 respondents state that women receive more retirement income than men.¹¹ The beliefs about factors are correlated with prior beliefs about the size of the gender pension gap. Respondents who mention factors such as family choices, discrimination, leadership positions or the gender wage gap hold significantly lower prior beliefs about a woman's relative pension, while respondents who mention that there is no gender pension gap hold significantly higher prior beliefs (see Figure A.3).

Figure 4 shows that the gender wage gap and discrimination are seen as particularly relevant factors for the gender pension gap. To understand whether these beliefs are heterogeneous, I compare the beliefs of i) respondents with high and low financial literacy scores, ii) male and female respondents, and iii) Republicans, Democrats, and independents. This analysis provides insights into whether qualitative beliefs about the gender pension gap depend on general financial and pension knowledge (i), whether they differ between those more and less affected by the gender pension gap (ii), and whether political opinions translate into different beliefs (iii). When I compare respondents with high and low financial literacy, the figure shows that respondents with high financial literacy are more likely to mention most of the factors identified from the answers to the open-ended question, implying that they are generally more aware of the factors behind the gender pension gap. Furthermore, I

¹⁰Applying a systematic and automated approach to determine the most frequently mentioned words reveals a similar picture; see Appendix F.

¹¹The mean prior belief for respondents who stated that there is no gender pension gap is \$95; 93 of them stated \$100 as their prior belief about a woman's relative pension.

Figure 4: Prior Beliefs: Main Factors



Notes: The figure shows the factors cited most often as main reasons for the gender pension gap as a share of how often they are mentioned by all respondents. The description of the categories is provided in Table A.5

see that female respondents are more likely than male respondents to name discrimination as a factor. Male respondents, on the other hand, state significantly more often that there is no gap. The comparison by political affiliation shows that Republicans mention more often that there is no gap or that either the profession or the duration someone stays in the workforce are factors in the gender pension gap. Democrats are more likely to state that the gender wage gap and discrimination are factors in the gender pension gap.¹² It is important to note that, while most of these factors are related, respondents do not necessarily see or mention these relationships.

To use the responses to the open-ended question for the analysis of treatment effects, I group them into two broad categories: personal and impersonal factors. While personal factors, such as chosen career path, are endogenous and can be influenced by a woman's choices, impersonal factors, such as discrimination, are exogenous and cannot be directly influenced by her choices (Cappelen et al. 2010; Settele 2022). I categorize as personal factors all responses that are somehow based on personal decisions. These include profession, parenthood and marriage, the duration of work (in years and hours), qualification, experience and quality of work as well as personal choices. The impersonal factors, on the other hand, include factors not directly under the control of the individual, such as discrimination, politics and social norms and longevity. I do not include the gender wage gap as either a personal or an impersonal factor because while it can be partially explained by personal factors such as occupational choice or hours worked per week, there is also a portion that cannot be explained by such factors.¹³

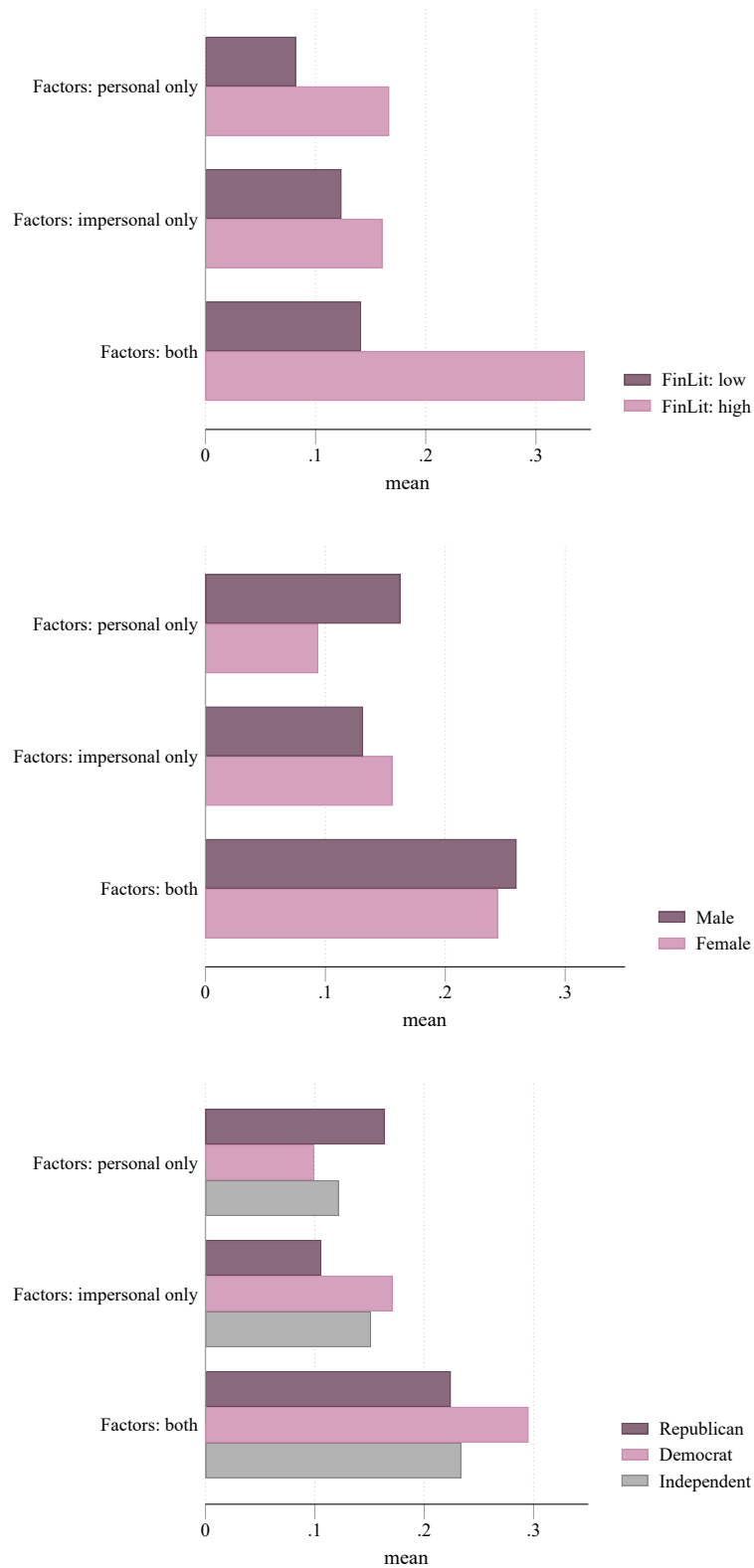
When I compare who mentions what type of factors, as shown in Figure 5, respondents with high financial literacy are more likely than respondents with low financial literacy to mention both personal and impersonal factors. This could be due to either their higher level of education or their potentially higher interest in the topic. While respondents with low financial literacy mention impersonal factors more often than personal factors, respondents with high financial literacy mention personal factors equally as often as impersonal factors. When I compare male and female respondents, a different picture emerges: Female respondents cite impersonal more often than personal factors, while male respondents are more likely to cite personal than impersonal factors, thus attributing the gap more to women's choices. Furthermore, while women mention impersonal factors only slightly more often than men, men mention personal factors significantly more often than women. This implies that men are more likely to attribute the gap to factors related to a woman's choices rather than to external circumstances. Both men and women are equally likely to mention both types of factors in their replies. The comparison by political affiliation shows that Republicans attribute the gap more to personal than to impersonal factors. Furthermore, they mention personal factors more often than do Democrats or independents. Democrats and independents, on the other hand, mention personal factors more often than Republicans.

My analysis provides evidence that individuals attribute the gender pension gap to different types of factors. This may be relevant for policy preferences, as individuals who consider personal factors more relevant than impersonal factors may have less demand for policy interventions, as they attribute the gender pension gap more to women's choices than to external circumstances. It is therefore important to understand to what extent the factors that individuals consider when asked about

¹²In Table A.6, I provide a summary of the shares of all responses by group and a comparison of the means.

¹³I provide an overview of all the categories and their grouping into personal and impersonal factors in Appendix E.

Figure 5: Prior Beliefs: Personal and Impersonal Factors



Notes: The figure shows how often respondents mention personal and/or impersonal factors when asked about the main factors in the gender pension gap as a share of all responses. Personal factors capture aspects influenced by a woman's choices, while impersonal factors are caused by external circumstances.

inequality increase or mitigate the effects of providing information on inequality.

4 Empirical Framework

4.1 Estimation of Treatment Effects

For my analysis, I rely on the randomized information provision and analyze the effect of providing information about the size of the gender pension gap using a standard ordinary least squares (OLS) estimation strategy. I analyze average treatment effects based on the following equation:

$$y_i = \beta_0 + \beta_1 Treat_i + \beta^T X_i + \varepsilon_i \quad (1)$$

where y_i denotes the outcome variables, $Treat_i$ indicates whether a respondent is in the treatment group, X_i denotes the control variables and ε_i is the error term. Control variables include the following variables: gender, age, US census region, US born, education, marital status, employment status, income, ethnicity/race, political affiliation, an indicator for having a 401(k) plan, self-assessed financial and pension knowledge, financial literacy, trust in public institutions, worries about the economy, views about gender equality and divorce and the bias in prior beliefs, calculated as the difference between the true value and respondents' winsorized prior beliefs.^{14,15}

In addition to the average treatment effect, I am interested in analyzing the treatment effect heterogeneity by financial literacy, gender and political affiliation to see whether the effects are moderated by any of these characteristics. For estimating these conditional average treatment effects, I estimate the following equation:

$$y_i = \gamma_0 + \gamma_1 Treat_i + \gamma_2 Char_i + \gamma_3 Treat_i \times Char_i + \gamma^T X_i + \varepsilon_i \quad (2)$$

While the notation is the same as that for equation (1), this equation additionally includes the terms $Char_i$, which denotes the respective characteristic used for the heterogeneity analysis.

4.2 Hypotheses

By conducting the analysis, I test the following preregistered hypotheses. The hypotheses are based on the assumption that most people overestimate a woman's relative pension, i.e., that they think the gender gap in retirement income is smaller than it actually is. This assumption is based on previous literature suggesting that people indeed tend to underestimate the gender gap in labor and pension income (Settele 2022; Casarico et al. 2023). In this case, when respondents receive the treatment, they learn that gender inequality is more pronounced than they initially estimated. If respondents are inequality averse, they would respond as described in the hypotheses below.

Hypothesis I – Main Sample: *Receiving information about the size of the gender pension gap increases the perception of the direct effects of the gender pension gap and decreases its perceived fairness. In addition, the provision of information increases agreement with the assertion that the drivers of the gender pension gap have a large impact on the gap and with policy measures to adjust*

¹⁴I ask questions about general and gender attitudes prior to treatment to ensure that the answers are not confounded by the provision of information.

¹⁵A 401(k) plan is a defined contribution occupational retirement plan offered by many employers in the United States.

*various aspects of retirement savings to reduce the gap.*¹⁶

Hypothesis II – Financial Literacy: *Respondents with a higher financial literacy score show a stronger reaction to the treatment than respondents with a lower financial literacy score.*

This hypothesis is based on the assumption that respondents with high financial literacy are more likely to be able to comprehend the information and therefore update their perceptions about the gender pension gap and their policy demand. In addition, since they are more likely to plan for retirement (Lusardi and Mitchell 2008, 2011b), they might also be more likely to update their perceptions and their demand for policy intervention once they learn about the differences between men and women in retirement income. Moreover, Fornero and Lo Prete (2019) show that more financially literate people are more willing to accept reforms.

Hypothesis III – Gender: *Women show a stronger reaction to the treatment than men.*

The assumption underlying this hypothesis is that individuals are self-interested. Therefore, women should react more strongly to the treatment than men because they are more affected by the gender pension gap (Settele 2022). This should especially be the case for the questions related to fairness and policy demand since women might perceive the difference to be particularly unfair and might also be more in favor of policies meant to reduce the size of the gender pension gap.

Hypothesis IV – Political Affiliation: *Democrats and independents show a stronger reaction to the treatment than Republicans.*

Since Democrats are generally more likely to believe that more efforts to address gender inequality are necessary (Pew Research Center 2020), they may also react more strongly to the treatment, especially when asked about policies aimed at reducing the gender pension gap. Furthermore, Settele (2022) has shown that it is indeed Democrats and independents who drive support for policies when asked about the gender wage gap, so the results for the gender pension gap may be similar.

In addition to these preregistered hypotheses, I examine the role of prior beliefs about the main factors of the gender pension gap in the treatment effects. Therefore, as described in Section 3.2, I categorize the responses into personal and impersonal factors, where personal (endogenous) factors capture factors directly influenced by a woman's choices while impersonal (exogenous) factors refer to external circumstances. My goal is to understand whether respondents who mention one or the other type of factor respond differently to the treatment compared to respondents who mention neither type or both types of factors.

5 The Effect of Information Provision

This section presents causal evidence on the effect of providing information about the size of the gender pension gap on respondents' posterior beliefs, their perception of the gender pension gap and its drivers as well as the resulting policy demand.

¹⁶To ease understanding and readability, the wording of this hypothesis has been adjusted from that in the preanalysis plan. The original hypothesis is preregistered as: *Receiving information about the gender gap in retirement income leads to a stronger disagreement with the perceived fairness, to a stronger agreement with the perceived impact of the gap as well as to a stronger support for policy measures adjusting different aspects of retirement savings.*

5.1 Results for the Main Sample

In the first stage, it is important to understand whether the provision of information actually affects respondents' beliefs (Table 1, Panel A, Columns 1 and 2). If the treatment has no effect on respondents' beliefs, it is unlikely to have an effect on their perceptions of the gender pension gap and policy demand for measures to reduce the gap. I therefore calculate the extent to which their posterior beliefs deviate from their prior beliefs as the difference between the former and the latter (*Updating*). This difference is negative for respondents who initially overestimated the relative pension of a woman to a man's. I find that receiving the treatment has a significant effect on updating. More specifically, I follow Haaland et al. (2023) and estimate a learning rate of 0.16 as the coefficient of the interaction of the treatment indicator and the bias in prior beliefs (Table 1, Panel A, Column 2). This learning rate indicates that respondents who initially overestimate a woman's relative pension (i.e., have a negative bias) correct their beliefs downward to come closer to the true value, while the opposite is true for respondents who initially underestimate a woman's relative pension.¹⁷ This result shows that the treatment does indeed affect respondents' beliefs about the size of the gender pension gap.

Knowing that the provided information leads to belief updating, I continue by analyzing the effect of the treatment on two general outcomes related to the perception of the gender pension gap: whether respondents think that the gender pension gap has important direct effects on their own lives (*Direct Effects*) and the perceived fairness of the gender pension gap (*Fair*). Respondents who receive information about the size of the gender pension gap are more likely to agree that the gap has important direct effects on their own lives. Their agreement with the statement increases by 26.2 percent of a standard deviation (Table 1, Panel A, Column 3). Regarding the question of whether the gender pension gap is perceived as fair (Column 4), I find a strongly significant negative effect of the treatment. Respondents who receive information on the size of the gender pension gap are 43.1 percent of a standard deviation less likely to agree that the gender pension gap is fair. This finding is consistent with findings from other studies that provide pessimistic information about inequality (Ciani et al. 2021): once respondents learn that inequality is greater than they expected, they increase their inequality concerns. Overall, the results for the two general outcomes suggest that respondents do indeed learn something new from the treatment and that the issue is important enough to them to change their perceptions of the direct effects and fairness of the gender pension gap. This suggests that providing information on the gender pension gap could be a useful way of raising awareness of the gap.

In the second stage, I want to understand whether respondents update only their general perception of the gender pension gap and its effect on their own lives or whether the information provided also shifts their perception of the drivers of the gender pension gap, as shown in Table 1, Panel B. More precisely, I ask respondents whether they agree that the following drivers have a large impact on the gender pension gap: unequal distribution of care work (*Care*), gender differences in earnings and wages (*Wages*), one's chosen profession and qualification (*Profession*), differences in hours worked per week (*Hours*) and social norms and gender stereotypes (*Norms*).¹⁸ Using the same categorization

¹⁷The bias in prior beliefs is calculated as the difference between the provided information, i.e., that a woman receives \$66 in retirement income for every \$100 a man receives, and winsorized prior beliefs.

¹⁸One might be concerned that respondents could give the same response to each of the statements or that respondents would indicate strong (dis)agreement with all of the drivers. However, only 11 percent of respondents indicate the

Table 1: Treatment Effects on Perceptions, Drivers and Policy Demand

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap							
	(1)	(2)	(3)	(4)			
	Updating		Direct Effects	Fair			
Treat	-8.349*** (0.977)	-5.302*** (1.074)	0.262*** (0.032)	-0.431*** (0.033)			
GPG Bias	0.512*** (0.027)	0.436*** (0.038)	0.000 (0.000)	-0.002*** (0.001)			
Treat × GPG Bias		0.162*** (0.053)					
Observations	2964	2964	2964	2964			
Control mean	-2.44	-2.44	3.93	4.50			

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1)	(2)	(3)	(4)	(5)	(6)
	Care	Wages	Profession	Hours	Norms	Impact Index
Treat	0.073** (0.032)	0.100*** (0.031)	0.005 (0.035)	0.002 (0.036)	0.034 (0.031)	0.043* (0.022)
Observations	2964	2964	2964	2964	2964	2964
Control mean	6.32	6.63	6.58	5.78	6.30	–

Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	-0.026 (0.033)	0.027 (0.034)	0.025 (0.034)	0.072** (0.033)	0.071** (0.034)	0.044 (0.033)	0.035* (0.020)
Observations	2964	2964	2964	2964	2964	2964	2964
Control mean	6.28	5.31	7.11	6.37	5.48	4.77	–

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

strategy as for the beliefs about the factors in the gender pension gap (Section 3.2), *Care*, *Profession* and *Hours* can be seen as personal (endogenous) factors since a woman can decide to change them to a certain extent. *Norms*, on the other hand, can be seen as impersonal (exogenous) factors that cannot be changed by an individual's choice. The driver *Wages* cannot be grouped into any of the categories, as it can be influenced by both personal choices and external circumstances. Column (6) of Panel B captures a summary index, which is an equally weighted average of the standardized outcomes, following Kling et al. (2007).

I find that the treatment significantly increases agreement that the unequal distribution of care work and gender differences in earnings and wages have a large impact on the gender pension gap by 7.3 and 10.0 percent of a standard deviation, respectively (Table 1, Panel B, Columns 1 and 2). The treatment does not impact respondents' agreement with the statements that the chosen profession, hours worked or social norms have a large impact on the gender pension gap. This shows that once respondents learn about the size of the gender pension gap, they consider the personal factor *Care* and *Wages*, which is impacted by both personal choices and external circumstances, more relevant while their agreement with the impact of the impersonal factor *Norms* does not change. This finding suggests that respondents view women and their choices as at least partly responsible for the gender pension gap. For the summary index, I find a marginally significant positive effect of 4.3 percent of a standard deviation.

Finally, in the third stage, I analyze whether these changes in perceptions regarding the general views and drivers of the gender pension gap also affect respondents' demand for policies that aim at reducing the gender pension gap. For the policy measures, I distinguish between measures related to occupational pensions and other measures. The occupational pension measures include that employers should establish an occupational retirement plan (*Establish*), that employees should contribute if an occupational retirement plan is offered (*Contribute*) and that everyone should be eligible for employer matched contributions (*Match*). The remaining policy measures include more targeted financial education (*Education*), equal splitting of retirement benefit entitlements between spouses (*Spouses*) and equal Social Security payments for everyone (*Social Security*). In addition, I again include a summary index, which is an equally weighted average of the standardized outcomes, following Kling et al. (2007). All policy measures except *Social Security* are based on policy recommendations to reduce the gender pension gap from the OECD (2021b).

The causal effect of providing information on the size of the gender pension gap on policy demand is shown in Panel C of Table 1. Receiving the treatment significantly increases support for targeted financial education (Column 4) and for equal splitting of retirement benefit entitlements between spouses (Column 5) by approximately 7 percent of a standard deviation. Support for measures adjusting occupational retirement savings remains unaffected. This result is in line with the evidence on the perceived drivers: respondents view gender differences in care work and wages as significantly more important once they learn about the size of the gender pension gap. Consequently, the policy measures for which their support increases are measures that can help them to mitigate the effect of the gender differences in care work. The treatment effect on the summary index (Column 7) is marginally significant and positive, providing suggestive evidence that demand for policy intervention

same level of agreement for all measures. Strong agreement for individual measures is reported by 13 percent (*Hours*) to 23 percent (*Wages*) of respondents. Strong disagreement is reported by 4 percent (*Profession*) to 7 percent (*Hours*) of respondents.

increases when people learn about the size of the gender pension gap.

The results discussed in this section are in line with Hypothesis I: treated respondents indeed agree more that they perceive direct effects of the gender pension gap and agree less that the gap is fair. They also agree more that (some of) the suggested drivers have a large impact on the gender pension gap, and their demand increases for policies related to targeted financial education and equal splitting of retirement benefit entitlements between spouses.

To understand, whether respondents react significantly differently to the treatment based on their prior beliefs, I interact the treatment indicator with the standardized bias in winsorized prior beliefs. The results shown in Table A.8 indicate that the treatment effects discussed in this section are often not significantly moderated by respondents' prior beliefs. However, the results for the drivers of the gender pension gap shown in Panel B of Table A.8 provide supporting evidence that respondents who state as their prior belief a lower relative pension for a woman than the average respondent (higher bias) react less to the treatment. This result is as expected, as the respondents who hold higher prior beliefs about a woman's relative pension receive a stronger treatment in the sense that the information that they receive suggests more inequality than they expressed in their prior beliefs than respondents who stated lower prior beliefs.

Additionally, I analyse whether the main results of this section are robust to the inclusion of survey weights that correct for the overrepresentation of households with incomes below \$75,000. More precisely, I apply a weight of 0.73 to respondents with a household income of less than \$35,000, a weight of 0.85 to respondents with a household income between \$35,000 and \$75,000 and a weight of 1.43 to respondents with a household income above \$75,000. Weights are calculated by dividing the target (population) share by the actual (sample) share. The results are largely robust to this adjustment (see Table A.7).

In the following sections, I discuss a number of mechanisms that could explain the results, namely, financial literacy and understanding of saving, self-interest, political affiliation, and prior beliefs about the factors that respondents consider when thinking about the gender pension gap.

5.2 Mechanisms: Financial Literacy and Understanding

Individuals differ in their level of financial literacy and, in turn, in their understanding of basic concepts of (retirement) savings. As a consequence, they might react differently to the treatment for two reasons: 1) Those with higher financial literacy might better comprehend the provided information. If this is the case, they might also show a stronger reaction to the treatment. 2) Respondents with high financial literacy might be more likely to understand the consequences of the gender pension gap and are therefore perhaps more likely to adjust their perceptions and preferences in response to the treatment. From the descriptive analysis in Section 3, it is clear that respondents with high financial literacy (i.e., those who answer more questions correctly) hold significantly lower prior beliefs about a woman's relative pension.

In the first stage, I want to understand whether respondents with high financial literacy update their beliefs differently from respondents with low financial literacy. Panel A of Table 2 provides evidence that respondents with high financial literacy do indeed update their beliefs more in response to the treatment than respondents with low financial literacy (Column 1). In addition, respondents with high financial literacy agree significantly less that the gender pension gap is fair once they learn

Table 2: Heterogeneity in Treatment Effects on Perceptions, Drivers and Policy Demand by Financial Literacy Level

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap							
	(1)	(2)	(3)				
	Updating	Direct Effects	Fair				
Treat	-5.548*** (1.857)	0.242*** (0.046)	-0.316*** (0.051)				
FinLit: high	-0.553 (1.571)	-0.090* (0.049)	-0.151*** (0.051)				
Treat × FinLit: high	-5.156** (2.068)	0.037 (0.063)	-0.211*** (0.067)				
p (Treat + Treat x FinLit)	0.000	0.000	0.000				
Observations	2964	2964	2964				
Control mean, FinLit: low	-2.85	4.57	4.75				
Panel B: Perceived Drivers of the Gender Pension Gap							
	(1)	(2)	(3)	(4)	(5)	(6)	
	Care	Wages	Profession	Hours	Norms	Impact Index	
Treat	0.033 (0.047)	0.082* (0.047)	-0.014 (0.052)	-0.018 (0.052)	0.002 (0.046)	0.017 (0.034)	
FinLit: high	0.141*** (0.050)	0.212*** (0.049)	0.169*** (0.055)	-0.018 (0.056)	0.078 (0.048)	0.116*** (0.036)	
Treat × FinLit: high	0.073 (0.064)	0.033 (0.063)	0.035 (0.070)	0.038 (0.073)	0.060 (0.062)	0.048 (0.045)	
p (Treat + Treat x FinLit)	0.016	0.006	0.654	0.701	0.142	0.025	
Observations	2964	2964	2964	2964	2964	2964	
Control mean, FinLit: low	6.12	6.25	6.12	5.76	6.19	–	
Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	-0.049 (0.044)	-0.014 (0.045)	-0.007 (0.047)	0.067 (0.048)	0.064 (0.048)	0.053 (0.045)	0.019 (0.030)
FinLit: high	-0.062 (0.052)	-0.250*** (0.053)	0.123** (0.051)	0.094* (0.053)	-0.099* (0.054)	-0.276*** (0.052)	-0.078** (0.032)
Treat × FinLit: high	0.042 (0.066)	0.076 (0.068)	0.059 (0.067)	0.010 (0.066)	0.011 (0.068)	-0.016 (0.065)	0.030 (0.041)
p (Treat + Treat x FinLit)	0.886	0.225	0.271	0.096	0.120	0.426	0.077
Observations	2964	2964	2964	2964	2964	2964	2964
Control mean, FinLit: low	6.51	5.80	6.86	6.18	5.66	5.81	–

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

about the size of the gap than respondents with low financial literacy (Column 3).

Focusing on the second stage, i.e., the perceived drivers of the gender pension gap (Panel B), I find that respondents with high financial literacy do not react significantly differently to the treatment from respondents with low financial literacy. The result for the third stage is similar: I do not find heterogeneous treatment effects by financial literacy level, even though the policy views vary with this covariate among respondents in the control group. Nevertheless, the results for the average treatment effect seem to be driven by respondents with high financial literacy (p-value of 0.03 for the *Impact Index* and p-value of 0.08 for the *Policy Index*). The results remain largely unchanged when I additionally include the interaction with respondents' bias in prior beliefs (Table A.9).

These results are mostly not in line with Hypothesis II: while I find that respondents with high financial literacy update their beliefs more and also respond more strongly to the treatment when asked about the fairness of the gender pension gap than respondents with low financial literacy, I do not observe significant differences in perceptions of drivers and policy demand. This finding suggests that, even though respondents with high financial literacy update their beliefs more after receiving the information, this does not translate into significantly higher demand for policy interventions than among respondents with low financial literacy. Thus, providing information to the general population may be an effective intervention regardless of how the provision of information translates to respondents' beliefs.

5.3 Mechanisms: Self-Interest

Another possible mechanism could be self-interest: it is possible that the results for male and female respondents differ since the gender pension gap is to women's disadvantage. In this case, one would expect women to respond more strongly to the treatment when asked about their perceptions of the gender pension gap and their policy demand.

The results of the analysis are shown in Table 3. For the first stage (Panel A), I find that both female and male respondents update their beliefs about the size of the gender pension gap significantly once they receive the treatment and that their responses to the treatment do not significantly differ (Column 1). Furthermore, I find that they change their general perceptions in a similar way: both men and women agree to a larger extent that the gender pension gap has important direct effects on their own lives, and both agree significantly less that the gender pension gap is fair. This result suggests that self-interest might not be a factor—or at least not the only factor. While it may seem counterintuitive that not only women but also men agree more strongly that the gender pension gap has important direct effects on their own lives, it is important to keep in mind that more than half of the respondents are married. Therefore, both the male and female respondents could be affected by the gender pension gap through lower total household income. Including an additional interaction with marital status confirms that the result for male respondents is indeed driven by married men.

When focusing on the perceived drivers of the gender pension gap in the second stage (Panel B), I observe only marginally significant differences between male and female respondents. Even though the treatment effect for the first and second stages of the analysis is barely moderated by respondents' gender, I observe significant differences in their policy demand. The results as presented in Table 3, Panel C, suggest that the increase in policy demand is driven by male respondents. In fact, female respondents do not adjust their policy demand in response to the treatment and thus

Table 3: Heterogeneity in Treatment Effects on Perceptions, Drivers and Policy Demand by Gender

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap						
	(1) Updating	(2) Direct Effects	(3) Fair			
Treat	-9.919*** (1.115)	0.208*** (0.044)	-0.452*** (0.047)			
Female	-0.664 (1.547)	0.408*** (0.047)	-0.096** (0.048)			
Treat × Female	3.126 (1.952)	0.108* (0.063)	0.041 (0.066)			
p (Treat + Treat x Female)	0.000	0.000	0.000			
Observations	2964	2964	2964			
Control mean, Male	-2.81	3.11	4.81			

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1) Care	(2) Wages	(3) Profession	(4) Hours	(5) Norms	(6) Impact Index
Treat	0.063 (0.045)	0.040 (0.046)	0.066 (0.048)	-0.008 (0.051)	0.016 (0.044)	0.035 (0.031)
Female	0.174*** (0.048)	0.057 (0.046)	0.014 (0.053)	-0.048 (0.054)	0.053 (0.046)	0.050 (0.034)
Treat × Female	0.019 (0.064)	0.119* (0.063)	-0.121* (0.069)	0.021 (0.073)	0.036 (0.062)	0.015 (0.044)
p (Treat + Treat x Female)	0.073	0.000	0.275	0.805	0.228	0.111
Observations	2964	2964	2964	2964	2964	2964
Control mean, Male	6.19	6.64	6.87	5.95	6.07	–

Panel C: Policy Demand							
	(1) Establish	(2) Contribute	(3) Match	(4) Education	(5) Spouses	(6) Social Security	(7) Policy Index
Treat	0.052 (0.049)	0.112** (0.050)	0.045 (0.049)	0.072 (0.047)	0.087* (0.049)	0.102** (0.047)	0.078*** (0.029)
Female	0.164*** (0.049)	0.084* (0.051)	0.060 (0.050)	0.044 (0.051)	0.089* (0.051)	-0.019 (0.048)	0.070** (0.030)
Treat × Female	-0.156** (0.067)	-0.170** (0.069)	-0.040 (0.067)	0.000 (0.066)	-0.033 (0.068)	-0.115* (0.065)	-0.086** (0.041)
p (Treat + Treat x Female)	0.021	0.218	0.913	0.122	0.259	0.774	0.797
Observations	2964	2964	2964	2964	2964	2964	2964
Control mean, Male	5.95	5.12	7.09	6.40	5.36	4.30	–

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

react significantly less to it. The results remain largely unchanged when I additionally include the interaction with respondents' prior beliefs (Table A.10).

The results presented in this section are in contrast to the prediction of Hypothesis III: while I expected female respondents to respond more strongly to the treatment than male respondents, I find that in fact only the policy demand of male respondents increases. This finding also contradicts the proposed self-interest mechanism. One possible explanation could be that individuals are present biased and therefore only female *retirees* would react more strongly to the treatment. However, I find no evidence that female retirees are significantly more responsive to the treatment (Table A.13). It could also be that male respondents are better able to understand the effects of the policy than female respondents. To test this conjecture, I include an additional interaction with financial literacy. This analysis shows that the treatment effects for both male and female respondents are driven by respondents with high financial literacy, and therefore, differential understanding by gender cannot serve as an explanation. Another possible explanation is that female respondents may prefer policies that address inequalities in the labor market rather than policies that adjust retirement savings and retirement income, which could make their demand for the proposed policies inelastic.

5.4 Mechanisms: Political Affiliation

Another potential mechanism is political leaning: respondents hold different political views and therefore might also react differently to the treatment, especially with respect to their policy demand. Therefore, in this section, I analyze whether respondents who are Democratic, independent or unaffiliated with any party react differently to the treatment from Republicans.¹⁹

The results for the first stage are shown in Panel A of Table 4. Respondents update their beliefs significantly regardless of political affiliation. Furthermore, all respondents are more likely to agree that the gender pension gap has important direct effects on their own lives after receiving information about the size of the gap. In addition, they all agree significantly less that the gender pension gap is fair, and although the initial agreement that it is fair is lower among Democrats and independents than among Republicans, the treatment response is similar.

When focusing on the perceived drivers of the gender pension gap in the second stage (Table 4, Panel B), I find a strongly significant increase in the perceived importance of the unequal distribution of care work and for gender differences in wages in response to the treatment among Republicans. Democrats, on the other hand, react significantly less to the treatment when asked about the drivers.

For the third stage, i.e., the policy demand (Panel C), Democrats in the control group are in general more in favor of the policies than Republicans (Column 7), while independents seem to hold policy views similar to those of Republicans. When I analyze the response to the treatment, the results suggest that independents react significantly less to the treatment than Republicans when asked whether establishing occupational pension plans should be mandatory (Column 1). Furthermore, there is suggestive evidence that independents also react generally less to the treatment when asked about their demand for policies (Column 7). I do not find evidence that the treatment response of Democrats differs significantly from that of Republicans. The results are not moderated by respondents' prior beliefs (Table A.11).

¹⁹While Democrats and Republicans include only respondents who report these as their political affiliations, independents include respondents who reported being independent (820), unaffiliated (270), or of some other affiliation (21).

Table 4: Heterogeneity in Treatment Effects on Perceptions, Drivers and Policy Demand by Political Affiliation

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1) Updating	(2) Direct Effects	(3) Fair
Treat	-7.816*** (1.696)	0.310*** (0.057)	-0.490*** (0.064)
Democrat	1.893 (2.016)	0.161*** (0.060)	-0.135** (0.063)
Treat × Democrat	-2.552 (2.500)	-0.097 (0.080)	0.101 (0.084)
Independent	-0.440 (1.757)	0.008 (0.054)	-0.175*** (0.060)
Treat × Independent	0.821 (2.343)	-0.042 (0.076)	0.069 (0.083)
p (Treat + Treat x Dem)	0.000	0.000	0.000
p (Treat + Treat x Ind)	0.000	0.000	0.000
Observations	2964	2964	2964
Control mean, Republican	-7.46	3.17	5.29

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1) Care	(2) Wages	(3) Profession	(4) Hours	(5) Norms	(6) Impact Index
Treat	0.192*** (0.062)	0.182*** (0.060)	0.006 (0.062)	0.115* (0.068)	0.060 (0.061)	0.111*** (0.042)
Democrat	0.137** (0.060)	0.151*** (0.058)	-0.018 (0.064)	0.106 (0.068)	0.082 (0.059)	0.092** (0.042)
Treat × Democrat	-0.183** (0.081)	-0.160** (0.076)	-0.099 (0.087)	-0.208** (0.093)	-0.043 (0.079)	-0.139** (0.055)
Independent	0.030 (0.059)	-0.040 (0.059)	-0.089 (0.062)	0.047 (0.064)	-0.071 (0.058)	-0.024 (0.042)
Treat × Independent	-0.158* (0.082)	-0.077 (0.081)	0.086 (0.085)	-0.118 (0.090)	-0.031 (0.080)	-0.060 (0.056)
p (Treat + Treat x Dem)	0.861	0.649	0.125	0.140	0.729	0.442
p (Treat + Treat x Ind)	0.521	0.053	0.117	0.963	0.571	0.166
Observations	2964	2964	2964	2964	2964	2964
Control mean, Republican	5.78	6.07	6.92	5.78	5.60	–

Panel C: Policy Demand							
	(1) Establish	(2) Contribute	(3) Match	(4) Education	(5) Spouses	(6) Social Security	(7) Policy Index
Treat	0.071 (0.065)	0.048 (0.065)	0.039 (0.065)	0.131** (0.063)	0.154** (0.064)	0.100 (0.061)	0.091** (0.038)
Democrat	0.175*** (0.063)	0.043 (0.065)	0.097 (0.062)	0.013 (0.065)	0.166** (0.065)	0.155** (0.062)	0.108*** (0.039)
Treat × Democrat	-0.080 (0.084)	0.005 (0.086)	-0.089 (0.082)	-0.053 (0.084)	-0.133 (0.087)	-0.036 (0.083)	-0.064 (0.051)
Independent	0.096 (0.062)	-0.043 (0.061)	-0.059 (0.063)	-0.015 (0.061)	0.038 (0.062)	0.079 (0.059)	0.016 (0.037)
Treat × Independent	-0.190** (0.085)	-0.060 (0.086)	0.043 (0.086)	-0.112 (0.084)	-0.107 (0.085)	-0.118 (0.081)	-0.091* (0.051)
p (Treat + Treat x Dem)	0.863	0.354	0.321	0.152	0.716	0.257	0.435
p (Treat + Treat x Ind)	0.034	0.828	0.159	0.727	0.392	0.739	0.998
Observations	2964	2964	2964	2964	2964	2964	2964
Control mean, Republican	5.58	5.01	6.87	6.04	5.08	4.01	–

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

These results show not only that providing information about the size of the gender pension gap affects those who are already more concerned about it but that the information reaches people of all political affiliations and has a particularly strong effect on Republicans. This finding contradicts Hypothesis IV: I expected Democrats and Independents to respond more strongly to the treatment, while in fact Republicans either do not react differently to the treatment or they react more strongly. A possible explanation for this finding could be that Republicans are more surprised by the information provided and therefore more likely to act on it while Democrats and independents may hold prior beliefs that are just as wrong but are already more concerned about gender inequality to begin with.²⁰ Thus, factual information about gender inequality in retirement can help increase support for ameliorative policies, especially among those who might be expected to be less concerned about gender inequality.

5.5 Mechanisms: Personal and Impersonal Factors

Finally, the treatment effect may be moderated by the factors that respondents consider when thinking about the gender pension gap. To investigate this possibility, I use the categories derived in Section 3.2 to understand whether the factors considered relevant before treatment also affect post-treatment responses. For this analysis, I compare respondents who mention either only personal factors or only impersonal factors with respondents who mention either both types of factors or neither type. This analysis allows me to understand whether respondents who think only about endogenous factors determined by a woman's choices or only about factors determined by exogenous circumstances react differently to the treatment from respondents who (do not) mention both factors and thus do not clearly attribute the gender pension gap to either type of factor.

For the first stage, as shown in Table 5, Panel A, it can be seen that regardless of their prior beliefs about the factors in the gender pension gap, all respondents update their beliefs about the size of the gender pension gap similarly in response to the treatment (Column 1), and they also react similarly to one another when asked about the perceived fairness of the gap (Column 3). However, when asked about the perceived direct effects of the gender pension gap on their own lives, respondents who initially mention only personal factors agree significantly more that the gender pension gap has important direct effects on their own lives than respondents who mention neither type or both types of factors once they receive the treatment. This might be because they think that they can influence the size of the gender pension gap by the choices they make. Consequently, overestimating a woman's relative pension would imply that they might underestimate the impact that the gap and therefore also their choices have on their retirement income.

In the second stage, I analyse whether respondents who mention either only personal or only impersonal factors react differently to the treatment when asked about their perceived drivers of the gender pension gap (Table 5, Panel B). Since these questions are closely related to the pretreatment elicitation of their perceived factors, it is interesting to first take a closer look at the respondents in the control group: my results show that, in the control group, those respondents who mention only personal factors are significantly more likely to agree that the personal drivers *Profession* and *Hours* have a large impact on the gender pension gap. Among respondents who mention only impersonal

²⁰My survey includes a question asking respondents to what extent they agree that the government should do more to promote gender equality in the United States. Democrats are significantly more likely than Republicans and independents to agree with this statement, but independents are also significantly more likely than Republicans to agree.

Table 5: Heterogeneity in Treatment Effects on Perceptions, Drivers and Policy Demand by Factor Type

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1) Updating	(2) Direct Effects	(3) Fair
Treat	-8.493*** (1.230)	0.219*** (0.037)	-0.448*** (0.039)
Factors: personal only	-0.707 (1.845)	-0.270*** (0.054)	0.121* (0.066)
Treat × Factors: personal only	-2.095 (2.336)	0.215** (0.088)	0.001 (0.101)
Factors: impersonal only	-1.569 (1.726)	0.079 (0.073)	-0.311*** (0.063)
Treat × Factors: impersonal only	2.814 (2.394)	0.083 (0.098)	0.153* (0.088)
p (Treat + Treat x Pers)	0.000	0.000	0.000
p (Treat + Treat x Impers)	0.006	0.001	0.000
Observations	2964	2964	2964
Control mean, neither or both	-6.29	4.41	3.98

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1) Care	(2) Wages	(3) Profession	(4) Hours	(5) Norms	(6) Impact Index
Treat	0.069* (0.038)	0.118*** (0.037)	0.028 (0.041)	0.007 (0.042)	0.021 (0.037)	0.049* (0.027)
Factors: personal only	0.085 (0.067)	0.068 (0.066)	0.446*** (0.065)	0.373*** (0.073)	-0.016 (0.067)	0.191*** (0.043)
Treat × Factors: personal only	0.139 (0.099)	-0.042 (0.096)	0.020 (0.089)	0.047 (0.105)	0.035 (0.094)	0.040 (0.060)
Factors: impersonal only	0.039 (0.062)	0.170*** (0.057)	0.005 (0.076)	-0.181** (0.076)	0.179*** (0.057)	0.042 (0.043)
Treat × Factors: impersonal only	-0.088 (0.090)	-0.101 (0.084)	-0.136 (0.104)	-0.024 (0.108)	0.039 (0.082)	-0.062 (0.059)
p (Treat + Treat x Pers)	0.023	0.389	0.550	0.572	0.516	0.100
p (Treat + Treat x Impers)	0.817	0.823	0.256	0.861	0.413	0.800
Observations	2964	2964	2964	2964	2964	2964
Control mean, neither or both	6.35	6.68	6.43	5.70	6.18	–

Panel C: Policy Demand							
	(1) Establish	(2) Contribute	(3) Match	(4) Education	(5) Spouses	(6) Social Security	(7) Policy Index
Treat	-0.038 (0.038)	0.001 (0.040)	0.032 (0.039)	0.087** (0.039)	0.053 (0.039)	0.055 (0.038)	0.032 (0.024)
Factors: personal only	-0.048 (0.073)	-0.124* (0.070)	0.038 (0.071)	0.056 (0.070)	-0.144** (0.070)	-0.028 (0.067)	-0.042 (0.040)
Treat × Factors: personal only	0.028 (0.109)	0.092 (0.106)	-0.060 (0.107)	0.011 (0.100)	0.121 (0.103)	-0.049 (0.094)	0.024 (0.061)
Factors: impersonal only	0.002 (0.072)	-0.085 (0.074)	-0.060 (0.073)	0.042 (0.067)	-0.150* (0.082)	-0.003 (0.073)	-0.043 (0.042)
Treat × Factors: impersonal only	0.049 (0.097)	0.095 (0.103)	0.015 (0.096)	-0.113 (0.093)	0.020 (0.108)	-0.033 (0.099)	0.005 (0.058)
p (Treat + Treat x Pers)	0.923	0.339	0.777	0.288	0.065	0.944	0.315
p (Treat + Treat x Impers)	0.901	0.314	0.595	0.764	0.466	0.812	0.477
Observations	2964	2964	2964	2964	2964	2964	2964
Control mean, neither or both	6.25	5.44	7.14	6.43	5.69	4.96	–

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

factors, I find that they agree significantly more that the drivers *Wages* and *Norms*, which are both at least partially driven by external circumstances, have a large impact on the gender pension gap. This implies that the pretreatment responses indeed capture respondents' perceptions regarding the gender pension gap. Regarding the treatment, however, I do not find evidence that respondents react significantly differently depending on the factors that they mention before treatment. The same is true for the third stage, i.e., their policy demand (Panel C). However, when analyzing their policy demand and additionally including the interaction with respondents' prior beliefs, I find suggestive evidence that respondents who mention either only personal or only impersonal factors prior to receiving the treatment react significantly less to the treatment when their bias in prior beliefs is above average, i.e., when they think before treatment that gender inequality in retirement income is more severe (Table A.12, Panel C).

The heterogeneity analysis with respect to the factors mentioned before treatment provides evidence that, regardless of whether respondents attribute the gender pension gap to individual choices or to external circumstances, they do not respond differently to the treatment. This finding suggests that the elasticity of demand for policy intervention does not necessarily depend on prior knowledge.

6 Conclusion

In this study, I explore the beliefs that people in the United States hold about the size of the gender pension gap and the factors that contribute to it. My analysis shows that, on average, both male and female respondents hold biased beliefs, thinking that men and women have more equal retirement incomes than they actually do. They attribute the gender pension gap to both personal and impersonal factors.

I analyze the causal effect of providing a subset of respondents with information about the size of the gender pension gap on their perceptions of the gap and their demand for policies aimed at reducing it. I find that the treatment shifts respondents' beliefs about the size of the gender pension gap. In addition, providing information about the size of the gender pension gap increases perceptions of direct effects of the gap on respondents' own lives while decreasing the perceived fairness of the gap. When asked about the drivers of the gap, respondents who received the treatment agree significantly more than control respondents that the unequal distribution of care work and gender differences in wages and earnings have a large impact on the gender pension gap. These changes in perceptions of the gender pension gap also lead to an increased demand for remedial policy measures. Treated respondents agree significantly more that financial education should be tailored to the needs of individual groups and that retirement benefit entitlements should always be split equally between spouses. The increase in agreement with this specific policy seems to be in line with the increase in the perception of the impact of the unequal distribution of care work, as the policy essentially redistributes retirement savings generated through paid work in the labor market toward partners who assume a greater share of unpaid care work at home. The results for the increased policy demand seem to be driven by male respondents and Republicans, while the policy demand of female respondents in particular seems to be rather inelastic to the treatment.

The results of this study indicate that providing information about the size of the gender pension gap not only shifts respondent perceptions about the gap but also affects their demand for policy interventions. This effect is driven by respondents who are less concerned about gender inequality

ex ante. This implies that providing information about the actual extent of inequality can help to increase support for policy measures aimed at mitigating the inequality, especially among those typically less concerned with it.

Further research is needed to understand how information provision should be designed to have a lasting effect and to increase support for policy interventions among individuals from groups with different characteristics. It is important to bear in mind that individuals respond differently to the information provided, so it is necessary to ensure that the information is provided in a way that is appropriate for each group.

References

- Andre, Peter, Ingar Haaland, Christopher Roth, and Johannes Wohlfart (2022). “Narratives about the Macroeconomy”. *CEPR discussion papers* 17305.
- Arano, Kathleen, Carl Parker, and Rory Terry (2010). “Gender-based risk aversion and retirement asset allocation”. *Economic Inquiry* 48 (1), 147–155.
- Barigozzi, Francesca, Helmuth Cremer, and Kerstin Roeder (2018). “Women’s career choices, social norms and child care policies”. *Journal of Public Economics* 168, 162–173.
- Bertrand, Marianne, Claudia Goldin, and Lawrence F Katz (2010). “Dynamics of the gender gap for young professionals in the financial and corporate sectors”. *American Economic Journal: Applied Economics* 2 (3), 228–255.
- Blackburn, Robert M, Jennifer Jarman, and Girts Racko (2016). “Understanding gender inequality in employment and retirement”. *Contemporary Social Science* 11 (2-3), 238–252.
- Blau, Francine D. and Lawrence M. Kahn (1994). “Rising Wage Inequality and the U.S. Gender Gap”. *The American Economic Review* 84 (2), 23–28.
- (2007). “The Gender Pay Gap”. *Academy of Management Perspectives* 21 (1), 7–23.
- (2017). “The Gender Wage Gap: Extent, Trends, and Explanations”. *Journal of Economic Literature* 55 (3), 789–865.
- Cappelen, Alexander W., Erik Ø. Sørensen, and Bertil Tungodden (2010). “Responsibility for What? Fairness and Individual Responsibility”. *European Economic Review* 54 (3), 429–441.
- Casarico, Alessandra, Jana Schuetz, and Silke Uebelmesser (2023). *Gender inequality over the life cycle, information provision and policy preferences*. mimeo.
- Ciani, Emanuele, Louis Fréget, and Thomas Manfredi (2021). “Learning about inequality and demand for redistribution: A meta-analysis of in-survey informational experiments”. *OECD Papers on Well-being and Inequalities No. 02*.
- Clark, Robert, Annamaria Lusardi, and Olivia S. Mitchell (2017). “Financial Knowledge and 401(k) Investment Performance: A Case Study”. *Journal of Pension Economics and Finance* 16 (3), 324–347.
- Clark, Robert L., Jennifer A. Maki, and Melinda Sandler Morrill (2014). “Can Simple Informational Nudges Increase Employee Participation in a 401(k) Plan?” *Southern Economic Journal* 80 (3), 677–701.
- Croson, Rachel and Uri Gneezy (2009). “Gender differences in preferences”. *Journal of Economic Literature* 47 (2), 448–474.
- Cullen, Zoe and Ricardo Perez-Truglia (2023). “The old boys’ club: Schmoozing and the gender gap”. *American Economic Review* 113 (7), 1703–1740.

- Ferrario, Beatrice and Stefanie Stantcheva (2022). “Eliciting People’s First-Order Concerns: Text Analysis of Open-Ended Survey Questions”. *AEA Papers and Proceedings* 112, 163–169.
- Fornero, Elsa and Anna Lo Prete (2019). “Voting in the Aftermath of a Pension Reform: The Role of Financial Literacy”. *Journal of Pension Economics and Finance* 18 (1), 1–30.
- Gabriel, Paul E and Susanne Schmitz (2007). “Gender differences in occupational distributions among workers”. *Monthly Labor Review* 130, p. 19.
- Haaland, Ingar, Christopher Roth, and Johannes Wohlfart (2023). “Designing Information Provision Experiments”. *Journal of Economic Literature* 61 (1), 3–40.
- Jones, Jeffrey M. (2022). *U.S. Political Party Preferences Shifted Greatly During 2021*. <https://news.gallup.com/poll/388781/political-party-preferences-shifted-greatly-during-2021.aspx>.
- Karamcheva, Nadia and Victoria Perez-Zetune (2023). *Defined Benefit and Defined Contribution Plans and the Distribution of Family Wealth*. Working Papers 58305. Congressional Budget Office.
- Keller, Elisa (2019). “Labor supply and gender differences in occupational choice”. *European Economic Review* 115, 221–241.
- Kleven, Henrik, Camille Landais, and Jakob Egholt Sogaard (2019). “Children and gender inequality: Evidence from Denmark”. *American Economic Journal: Applied Economics* 11 (4), 181–209.
- Kling, Jeffrey R, Jeffrey B Liebman, and Lawrence F Katz (2007). “Experimental analysis of neighborhood effects”. *Econometrica* 75 (1), 83–119.
- Lundberg, Shelly (2022). “Gender Economics and the Meaning of Discrimination”. *AEA Papers and Proceedings* 112, 588–591.
- Lusardi, Annamaria and Olivia S. Mitchell (2008). “Planning and Financial Literacy: How Do Women Fare?” *American Economic Review* 98 (2), 413–417.
- (2011a). “Financial Literacy and Retirement Planning in the United States”. *Journal of Pension Economics and Finance* 10 (4), 509–525.
- (2011b). “Financial Literacy around the World: An Overview”. *Journal of Pension Economics and Finance* 10 (4), 497–508.
- OECD (2021a). *Pensions at a Glance 2021: OECD and G20 Indicators*. OECD.
- (2021b). *Towards Improved Retirement Savings Outcomes for Women*. OECD.
- Pew Research Center (2020). “A Century After Women Gained the Right to Vote, Majority of Americans See Work To Do on Gender Equality”.
- Settele, Sonja (2022). “How Do Beliefs about the Gender Wage Gap Affect the Demand for Public Policy?” *American Economic Journal: Economic Policy* 14 (2), 475–508.
- Stantcheva, Stefanie (2021a). *Perceptions and Preferences for Redistribution*. Working Paper 29370. National Bureau of Economic Research.

- Stantcheva, Stefanie (2021b). “Understanding Tax Policy: How Do People Reason?” *The Quarterly Journal of Economics* 136 (4), 2309–2369.
- U.S. Census Bureau (2021a). *American Community Survey, 2021 1-Year Estimates Public Use Microdata Sample*.
- (2021b). *Current Population Survey, 2021 Annual Social and Economic Supplement (CPS ASEC)*.
- Watson, John and Mark McNaughton (2007). “Gender Differences in Risk Aversion and Expected Retirement Benefits”. *Financial Analysts Journal* 63 (4), 52–62.

Appendix

A Representativity

Table A.1 compares the survey sample used in this study to the general U.S. population over the age of 18.

A.1: Representativity

	(1) Mean Population	(2) Mean Sample
Age	48	47.93
Female	0.51	0.50
Region: West	0.24	0.23
Region: Midwest	0.21	0.21
Region: South	0.38	0.38
Region: Northeast	0.17	0.18
Born US	0.83	0.95
Educ: low	0.38	0.37
Educ: medium	0.29	0.25
Educ: high	0.33	0.38
Married	0.50	0.52
Income: low	0.25	0.35
Income: middle	0.28	0.33
Income: high	0.47	0.32
Republican	0.28	0.30
Democrat	0.28	0.33
Independent	0.42	0.37
Observations	–	2964

Notes: The information for the population mean is obtained from U.S. Census Bureau (2021a), U.S. Census Bureau (2021b) and Jones (2022).

B Balance

Table A.2 shows the means for the total sample and for the treatment and control groups. The table also shows the results of the t-test used to compare the treatment and control groups. The results indicate that the groups are well balanced and therefore the randomization was successful.

A.2: Balance Test

	(1)	(2)	(3)	(4)
	All	Mean C	T	p-Value T vs. C
Age	47.93	47.82	48.04	0.73
Female	0.50	0.49	0.51	0.38
Region: West	0.23	0.23	0.23	0.82
Region: Midwest	0.21	0.21	0.20	0.67
Region: South	0.38	0.38	0.38	0.84
Region: Northeast	0.18	0.18	0.18	0.96
Born US	0.95	0.94	0.95	0.38
Educ: low	0.37	0.35	0.38	0.03**
Educ: medium	0.25	0.26	0.25	0.80
Educ: high	0.38	0.40	0.36	0.06*
Trust: public	4.67	4.65	4.70	0.62
FinLit (self-assessed)	5.38	5.41	5.35	0.54
FinLit: high	0.54	0.54	0.55	0.52
Govt. promote gender equality	6.18	6.09	6.28	0.10*
Husband money, wife home	3.15	3.22	3.08	0.22
Divorce morally acceptable	6.38	6.35	6.42	0.54
Prior: GPG	90.28	89.89	90.67	0.74
Prior: GPG (win.)	84.92	85.73	84.12	0.24
Married	0.52	0.51	0.53	0.19
Employee	0.47	0.47	0.48	0.68
Self-employed	0.06	0.06	0.07	0.22
Retiree	0.24	0.24	0.24	0.77
Income: low	0.35	0.35	0.34	0.75
Income: middle	0.33	0.34	0.32	0.44
Income: high	0.32	0.32	0.33	0.27
Ethn./ race: white	0.77	0.76	0.78	0.28
Ethn./ race: black	0.09	0.09	0.08	0.60
Ethn./ race: hispanic	0.07	0.07	0.06	0.84
Ethn./ race: asian	0.04	0.04	0.04	0.43
Ethn./ race: native	0.01	0.00	0.01	0.63
Republican	0.30	0.29	0.30	0.67
Democrat	0.33	0.33	0.32	0.56
Independent	0.37	0.37	0.38	0.86
Observations	2964	1476	1488	2964

Notes: The table shows the means for the socio-demographic and socio-economic characteristics of the respondents, as well as their attitudes and financial literacy. While column (1) shows the means for the full sample, column (2) shows the means for the control group, and column (3) shows the means for the treatment group. Column (4) shows the results of t-tests to compare whether respondents in the control and treatment groups are systematically different from each other.; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C Sample and Survey

C.1 Survey Structure

Respondents are invited to take the survey by a professional survey company and receive the invitation on their dashboard on the company's survey platform. The invitation tells them how long the survey is expected to take and how much they will be paid. From there, they are taken to the survey start screen where they must confirm that they want to take the survey before they can proceed to answer the questions that are used to enforce quotas and attention checks.

Respondents are then asked about a number of personal attitudes, including self-assessed financial and pension knowledge, trust in public institutions, and concerns about the general economic development of the United States. The survey then assesses respondents' financial literacy, the procedure for which is described in detail in the Appendix C.4. Only then does the survey introduce questions about gender inequality and respondents' attitudes toward the topic. This measure is intended to further reduce selection based on the topic of the survey. I discuss sample selection in detail in the following section. The questionnaire continues with the experiment and its results, which are described in section 2.2. Towards the end of the survey, I ask respondents about additional socio-demographic characteristics, such as marital status, income, and children. The exact wording of all questions can be found in the appendix D.

Following Stantcheva (2021b), on the very last page I include feedback questions, asking respondents if they think the survey was biased and if they have anything to add. Of the 3,000 respondents, 80.1% did not find the survey biased. However, 12.5% felt the survey was biased toward the left and 7.4% felt it was biased toward the right. Since the majority of respondents indicated that they did not find the survey biased, and the remaining respondents were split between a right-wing bias and a left-wing bias, there is no clear indication that the survey was biased in either direction. When asked if they had anything to add, 79% of respondents did not. Of the remaining respondents, 11% commented that it was a good/interest/thought-provoking survey, while 1% commented negatively on the survey, such as the topic or length of the survey. The remaining responses were more varied, covering topics such as wishing they had received the information or clarification of their previous answers.

C.2 Sample Selection

At the start of the survey, the full sample consisted of 8,855 respondents. Of these, 2.2% refused to participate and terminated the survey before answering any questions, and a further 0.8% of respondents neither accepted nor declined to participate. In addition, 4,373 (49.4%) respondents were actually unable to participate because the relevant quotas were already full. Seventy respondents (0.8%) were excluded because they were either too young or did not live in the United States. Additionally, 849 respondents (9.6%) were screened out after failing an attention check at the beginning of the survey.²¹ A share of approximately 10% started the survey but never completed it (299 respondents). Of these 299 respondents, 23.7% stopped at the quota questions, 25.1% stopped at the financial literacy questions, and 41.5% decided not to continue at the stage of the experiment

²¹Respondents were asked the following question, based on Haaland et al. (2023): "The next question relates to the following problem. In questionnaires like ours, there are sometimes participants who don't read the questions carefully and just click through the survey quickly. To show that you read through our questions carefully, please provide the following answer to the next question: Please choose the color white. What is your favorite color?"

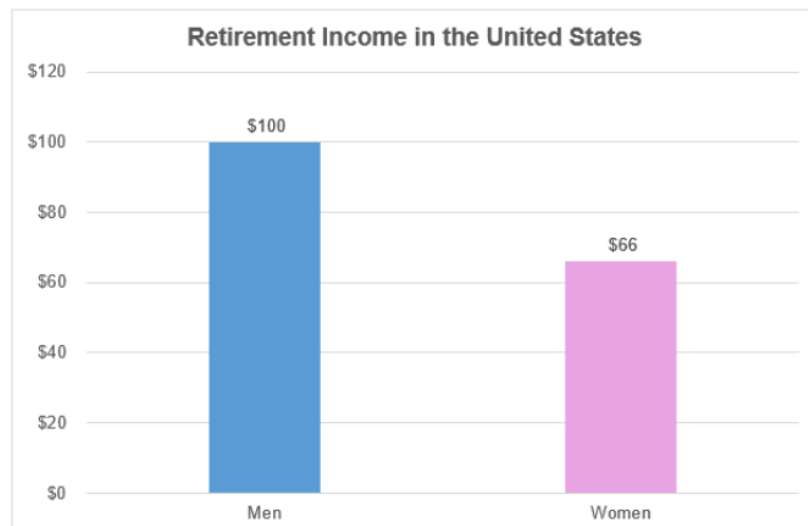
(before receiving the treatment). On average, respondents who did not complete the survey were more likely to be female (61% vs. 50%), slightly younger (45 vs. 48 years), and less likely to have at least an associate's degree (38% vs. 46%). Comparing respondents who dropped out before vs. at/after the experiment shows that they do not differ by gender or educational attainment, but older respondents are more likely to drop out during or after the experiment (average age 48), while younger respondents tend to drop out earlier in the survey (average age 43).

C.3 Treatment

Figure A.1 displays the treatment as shown to respondents in the survey.

A.1: Treatment

You estimated that on average a woman in the United States received \$ in retirement income for every \$100 a man received in 2019. According to the OECD (2021), on average a woman received \$66 in retirement income for every \$100 a man received.



C.4 Financial Literacy

To obtain a measure of respondents' financial literacy, I include the "Big Three" financial literacy questions and two additional pension specific questions in my questionnaire. The "Big Three" financial literacy questions from Lusardi and Mitchell (2008) cover topics such as interest rates, inflation, and stock market risk. Specifically, respondents are asked what their savings would be if they started with \$100 and an interest rate of 2%. They are then asked to choose whether they will have more, less, or exactly \$102 after five years. In a second question, they are asked what happens if the interest rate is 1% but the inflation rate is 2% and they are asked whether they would have more, less or exactly the same after one year. Regarding the stock market, respondents are asked whether it is true or false that it is safer to buy the stock of a single company rather than a stock mutual fund.

The pension-specific questions introduced by Clark et al. (2014) address taxes and employer matches in 401(k) plans. The tax question asks respondents - assuming they are in the 24% tax bracket - how

much their take-home pay will decrease if they decide to contribute \$100 to an employer's 401(k) plan. The employer match question asks respondents how much their account balance would increase if the employer matched contributions on a dollar for dollar basis and the employee contributed \$100. While these questions are specific to 401(k) plans, which neither everyone in the sample nor everyone in the United States has, they could be answered without prior knowledge of 401(k) plans because they are math questions.

Following Stantcheva (2021b), the questions are introduced by informing respondents that one point of interest is to learn whether information finds its way to the general public and that these questions are factual questions with right or wrong answers. I also inform respondents that their answers will be most helpful if they are as accurate as possible and encourage them to do their best.

Table A.3 presents the financial literacy question and the answers (correct answers are shown in bold), the share of respondents who gave the correct answer, and the share of respondents who said they did not know the correct answer (DK). Comparing these results with those of Lusardi and Mitchell (2011a) for the "Big Three", I find that respondents in my sample are more likely to give a correct answer to the interest rate question, but the shares of correct answers to the other two questions about inflation and stocks are very similar in both studies. Furthermore, the share of "Do not know" responses for all three questions is comparable to the results of (Lusardi and Mitchell 2011a). Comparing my sample with that of Clark et al. (2017) I find that the share of correct answers is considerably smaller than the share of correct responses in the sample of Clark et al. (2017). A likely explanation for this is that Clark et al. (2017) uses a sample that is relatively highly educated. In addition, the retirement questions focus on 401(k) plans. While these are very common in the United States, not everyone has one. In my sample only 39.2% of respondents say that they have a 401(k) plan, while in the sample of Clark et al. (2017) all respondents have a 401(k) plan. However, even in their sample, only 45% of respondents answered the tax benefit question correctly and 77% answered the employer match question correctly. While the share of correct responses may be different, I find a similar pattern for the pension-related questions about taxes and employer match, namely that only a small share of respondents are aware of the tax benefits, while a higher share are aware of the employer match.

To gain a better understanding of the differences in financial literacy, I conduct t-tests to compare subgroups. Since having a 401(k) plan could be a strong indicator of higher financial literacy scores, since the retirement-specific questions ask specifically about the 401(k) plan, I first compare individuals with and without a 401(k) plan. I find that individuals with a 401(k) plan have a financial literacy score that is on average 0.5, or half a question, higher, but they also have a score that is 0.3 higher when comparing only the "Big Three". Another relevant comparison in the light of this study is that between male and female respondents. Female respondents have a financial literacy score that is 0.7 lower than male respondents when only the "Big Three" are considered. When the pension-specific questions are included, the difference is 0.9 points, meaning that on average, male respondents answer one more question correctly than female respondents. The differences are significant, and when regressing female and having a 401(k) plan on financial literacy score (with 3 or 5 questions), the difference is still significant.

A.3: Financial Literacy Question

Question	Answer Options	Correct	DK
Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?	More than \$102 , Exactly \$102, Less than \$102, Do not know	75.4	9.2
Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?	More than today, Exactly the same, Less than today , Do not know	64.2	13.0
Please tell us whether this statement is true or false. “Buying a single company’s stock usually provides a safer return than a stock mutual fund.”	True, False , Do not know	52.3	35.5
Assume that you were in the 24% tax bracket (you pay \$0.24 in tax for each dollar earned) and you contributed \$100 pretax to an employer’s 401(k) plan. Your take-home pay (what’s in your paycheck after all taxes and other payments are taken out) will then:	Decline by \$100, Decline by \$76 , Decline by \$52, Remain the same, Do not know	20.4	35.9
Assume that an employer matched employee contributions dollar for dollar. If the employee contributed \$100 to the 401(k) plan, his account balance in the plan including his contribution would:	Increase by \$50, Increase by \$100, Increase by \$200 , Remain the same, Do not know	46.52	15.7

Notes: The table shows all financial literacy questions, where the top three are the “Big 3” as introduced by Lusardi and Mitchell (2008) and the bottom two are additional pension questions as introduced by Clark et al. (2014). The “Correct” column shows the share of respondents who answered the question correctly, while “DK” shows the share of respondents who said they did not know the correct answer. Correct answers are shown in bold in Column 2.

C.5 Missings in the open-ended question

Not all responses to the open-ended question discussed in section 3.2 can be coded into meaningful categories. In total, only 212 responses (7%) need to be coded as missing because the respondent either did not answer, claimed it to be “na” or gave a nonsense answer. Of the remaining responses, 247 respondents (8%) answered in such a way that they could not think of any factors or had never thought about the question, and 54 responses (2%) were unclear. In addition, 366 respondents (12%) indicated that they did not know. These relatively high shares may indicate that the gender pension gap is indeed not as widely discussed and therefore people are less aware of the gap. This leaves me with 2,085 responses that can be coded into more meaningful categories that will be used later in the analysis of the treatment effects.

D Relevant Variables

A.4: Description of variables.

Variable name	Type	Description
Treatment and Prior Beliefs		
Treat	Dummy	=1, if respondent is in the treatment group
Prior: GPG ⁺⁻	Continuous	Prior beliefs regarding the gender pension gap in the United States based on the question “ <i>How many dollars do you think a woman on average received in 2019 for every \$100 a man received?</i> ” (Correct answer: \$66)
Prior: GPG (win.) ⁺⁻	Continuous	Winsorized prior beliefs; Prior beliefs above \$200 are winsorized to \$200
GPG Bias	Continuous	Difference between the provided information (\$66) and respondents’ winsorized prior beliefs
Outcomes		
Updating	Continuous	Difference between respondents’ winsorized posterior and prior beliefs beliefs
Direct Effects	Numerical (0–10)	“ <i>The gender pension gap has important direct effects on my own life.</i> ” Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Fair	Numerical (0–10)	“ <i>The retirement income a woman receives on average per year in the United States is fair compared to the one a man receives.</i> ” Answer options from 0 “Strongly disagree” to 10 “Strongly agree”. This question has been recoded for the analysis, such that 10 now indicates “Strongly disagree” while 0 indicates “Strongly agree”
Care	Numerical (0–10)	“ <i>Unequal distribution of care work, including child care, has a large impact on the gender pension gap.</i> ” Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Wages	Numerical (0–10)	“ <i>Gender differences in earnings and wages have a large impact on the gender pension gap.</i> ” Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Profession	Numerical (0–10)	“ <i>One’s chosen profession and qualification have a large impact on the gender pension gap.</i> ” Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Hours	Numerical (0–10)	“ <i>Differences in hours worked per week have a large impact on the gender pension gap.</i> ” Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Norms	Numerical (0–10)	“ <i>Social norms and thereby also gender stereotypes have a large impact on the gender pension gap.</i> ” Answer options from 0 “Strongly disagree” to 10 “Strongly agree”

Variable name	Type	Description
Establish	Numerical (0–10)	<i>“It should be mandatory for all employers to establish an occupational retirement plan.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”. Further explanation: <i>“For example, this could be a 401(k) plan, or any other defined benefit or defined contribution plan.”</i>
Contribute	Numerical (0–10)	<i>“If an occupational retirement plan is offered, it should be mandatory for all employees to contribute.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”. Further explanation: <i>“An occupational retirement plan could, for example, be a 401(k) plan or any other defined benefit or defined contribution plan.”</i>
Match	Numerical (0–10)	<i>“If an employer offers an occupational retirement plan, all employees should be eligible for occupational retirement plans and matched contributions by the employer”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”. Further explanation: <i>“This implies that nobody should be excluded e.g. due to a required minimum number of hours worked.”</i>
Education	Numerical (0–10)	<i>“Financial education as well as information about pensions should be tailored to the needs of individual groups.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”. Further explanation: <i>“This could be courses specifically targeted at women, for example.”</i>
Spouses	Numerical (0–10)	<i>“Retirement benefit entitlements should always be split equally by spouses.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”. Further explanation: <i>“This could either happen while the spouse accumulates them or they could be split automatically upon divorce.”</i>
Social Security	Numerical (0–10)	<i>“Everyone should receive the same pension from Social Security.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”. Further explanation: <i>“This would imply that pensions from Social Security are independent of how much someone has contributed.”</i>
Factors*	Open-ended text	<i>“When you think about the size of the gender pension gap in the United States, what are the main factors that come to your mind?”</i>
Attitudes and Financial Literacy		
Need to save ^s	Dummy	=1, if answered yes to the question: <i>“Have you ever tried to figure out how much you need to save for retirement?”</i>

Variable name	Type	Description
Trust (public inst.) ⁻	Numerical (0–10)	<i>“Do you think that most public institutions in the United States can be trusted, or that you cannot be too careful when dealing with them?”</i> Answer options from 0 “You cannot be too careful” to 10 “Most institutions can be trusted”
Worries econ. dev. ⁻	Numerical (0–10)	<i>“Are you worried about the general economic development in the United States?”</i> Answer options from 0 “Not at all worried” to 10 “Very worried”
FinLit: Self-assess [%]	Numerical (0–10)	<i>“How knowledgeable do you consider yourself on financial and pension issues?”</i> Answer options from 0 “Not knowledgeable at all” to 10 “Very knowledgeable”
FinLit: score	Numerical (0–5)	Score based on the number of correct answers to the five financial literacy questions as described in Section C.4
Govt. promote gender equality	Numerical (0–10)	<i>“The government should do more to promote gender equality in the United States.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Husband money, wife home ⁺	Numerical (0–10)	<i>“A husband’s job is to earn money, a wife’s job is to look after the home and family.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Divorce morally acceptable	Numerical (0–10)	<i>“A divorce is morally acceptable.”</i> Answer options from 0 “Strongly disagree” to 10 “Strongly agree”
Individual Characteristics		
Age	Continuous	Respondent’s age
Female	Dummy	=1, if respondent is female
Region: West	Dummy	=1, if respondent lives in the US census region west
Region: Midwest	Dummy	=1, if respondent lives in the US census region midwest
Region: South	Dummy	=1, if respondent lives in the US census region south
Region: Northeast	Dummy	=1, if respondent lives in the US census region northeast
US born	Dummy	=1, if respondent was born in the US
Education: Associate ⁺	Dummy	=1, if respondents’ education is an Associate’s degree after 2 years of college or higher
Education: low	Dummy	=1, if respondents’ education is a high school degree or less
Education: medium	Dummy	=1, if respondents’ education is either some college or 2-year college degree
Education: high	Dummy	=1, if respondents’ education is 4-year college degree, master’s degree, doctoral degree or professional degree (JD, MD, MBA)
Married	Dummy	=1, if respondent is married or in a life-long partnership
Employee	Dummy	=1, if respondent is employed (full-time or part-time)
Self-employed	Dummy	=1, if respondent is self-employed or business owner
Retiree	Dummy	=1, if respondent is a retiree

Variable name	Type	Description
Income: middle	Dummy	=1, if respondents' household income in 2021 was between \$35,000 and \$75,000
Income: high	Dummy	=1, if respondents' household income in 2021 was \$75,000 or higher
Income	Categorical	Household income in 2021 (1 = Less than \$ 15,000; 2 = Between \$15,000 and \$24,999; 3 = Between \$25,000 and \$34,999; 4= Between \$35,000 and \$49,999; 5 = Between \$50,000 and \$74,999; 6= Between \$75,000 and \$99,999; 7= Between \$100,000 and \$149,999; 8 = Between \$150,000 and \$199,999; 9 = \$200,000 or more
Ethn./race: white	Dummy	=1, if respondent is European American/ White
Ethn./race: black	Dummy	=1, if respondent is African American/ Black
Ethn./race: hispanic	Dummy	=1, if respondent is Hispanic/ Latino
Ethn./race: asian	Dummy	=1, if respondent is Asian/ Asian American
Ethn./race: native	Dummy	=1, if respondent is Native American
Republican	Dummy	=1, if respondents' political affiliation is Republican
Democrat	Dummy	=1, if respondents' political affiliation is Democrat
Independent	Dummy	=1, if respondents' political affiliation is independent, non-affiliated or other

Several variables are based on questions previously asked in other studies. In the table * indicates questions based on Stantcheva (2021a), + indicates questions based on Settele (2022), - indicates questions based on Casarico et al. (2023) and § indicates questions based on Lusardi and Mitchell (2011b).

E Codebook for the open-ended question about Factors

A.5: Description of factors.

Variable name	Description	Example
Factors: Personal		
Family	Answers mentioning family choices (e.g. children, caring for relatives, marriage)	“Woman may make less do to the fact that they take time off for child birth and which goes against her income”
Profession	Answers mentioning differences in the chosen profession	“There is a pension gap because women take lower paying jobs.”
Quality	Answers which mention that work is of different quality or that men work harder	“Men work harder than women”
Qualification	Answers which mention education, skill level, experience or physical ability	“Different skill levels”
Duration	Answers which mention the time someone has spent in the workforce/ at a specific company	“Men have more working years than women. Thus, men earn more Social Security credits.”
Hours	Answers mentioning how many hours someone works	“Women work less hours”
Choices	Answers mentioning choices made (apart from parenthood and marital status)	“Life choices”
Factors: Impersonal		
Discrimination	Answers pointing towards factors such as discrimination, misogyny, sexism, (in)equality etc.	“women are generally treated unfairly in most things”
Norms	Answers mentioning social norms or historic developments	“Men are considered to be the ‘breadwinner’ or more hard working than women”
Politics	Answers indicating that the government/ politicians have to act or that the world is male-dominated	“need laws in place to promote equality”
Leadership	Answers mentioning woman/ man in leadership positions (but only impersonal)	“There are fewer women in management positions”
Longevity	Responses which mention that women live longer	“Women live longer than men”

Variable name	Description	Example
Factors: Both		
Gender wage gap	Answers which mention gender differences in wages or income more broadly	“Women are paid less than men”
Labor market	Answers discussing labor market aspects more broadly	“Job market opportunities”
Gap	Answers which indicate that women receive less/ men receive more where it is not fully clear, whether they are referring to labor income or other dimensions	“I believe men make more money than women.”
Factors: Neither		
N/A	Answers which have to be coded as missing, because they were either explicitly claimed to be missing or included nonsense answers	“N/a”
DK	Answers where the respondent made clear, that they do not know an answer to the question	“I don’t know”
Other	Answers which mention other factors such as e.g., inflation, gas prices, age, race or health	“Inflation”
Closing	Answers indicating that the gap is closing	“They still exist but the gap is getting smaller each day”
Deserve same	Answers indicating that the gap shouldn’t exist or that everyone should receive the same	“im unsure why it even exists both genders should earn the same regardless of gender”
Next generation	Answers that mention other generations which have to deal with the gap	“I have 2 daughters so I worry about their financial future”
No gap	Answers which indicate that there is no gender gap in retirement income	“I don’t believe that there is a gender pension gap anymore.”
Male gap	Answers which mention that women receive more (retirement) income	“I think today women even make more money than men in certain areas....”
Male discrimination	Answers which mention that there is discrimination against men	“Because men are discriminated against not women”
Number	Answers which mention the number of women/ men that exist and their share in the workforce	“Women are not in the workforce that much.”
None	Answers which indicate that no factors come to respondents’ mind	“none”

Variable name	Description	Example
Savings	Answers which address retirement saving, such as savings to a 401(k) plan	“Individual contributions made to pension fund”

A.6: Share of respondents mentioning each factor by group

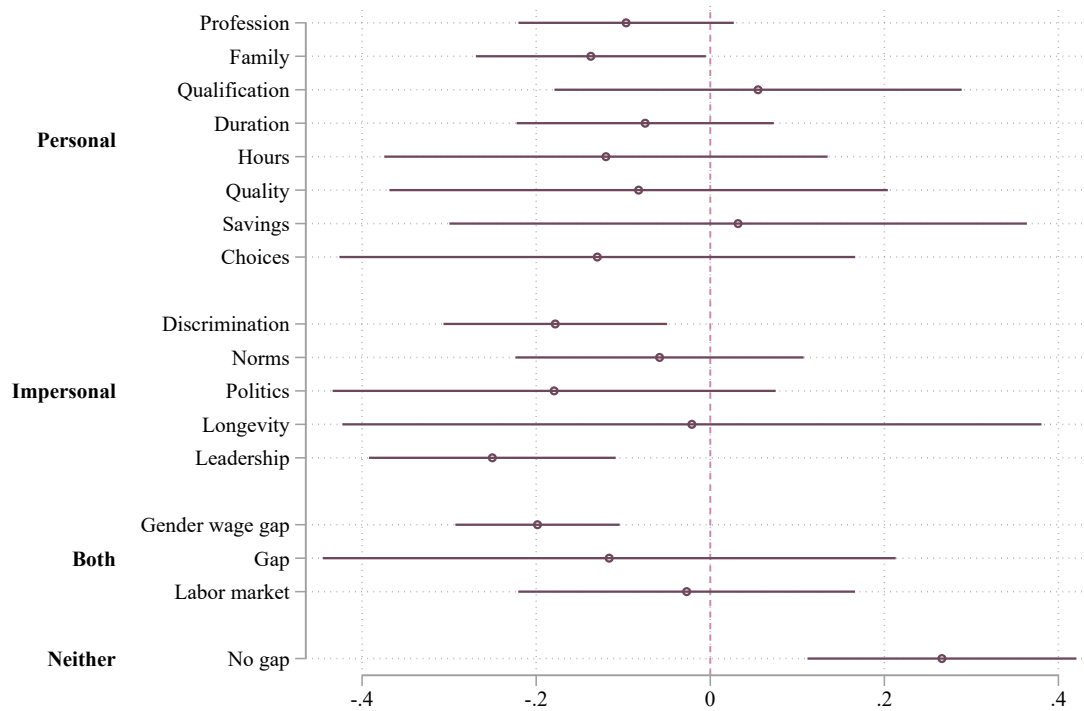
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Gender			Financial Literacy				Political Affiliation					
	All	Male	Female	F/M	Low	High	High/	Dem.	Rep.	Ind.	Dem/Rep	Dem/Ind	Rep/Ind
	mean	mean	mean	p	mean	mean	p	mean	mean	mean	p	p	p
Factors: personal only	0.13	0.16	0.09	0.00***	0.08	0.17	0.00***	0.10	0.16	0.13	0.00***	0.07*	0.01**
Profession	0.08	0.09	0.06	0.00***	0.04	0.11	0.00***	0.06	0.10	0.07	0.01***	0.36	0.04**
Family	0.06	0.06	0.07	0.36	0.02	0.10	0.00***	0.06	0.06	0.07	0.86	0.92	0.78
Qualification	0.04	0.03	0.04	0.80	0.03	0.04	0.17	0.02	0.05	0.03	0.00***	0.23	0.03**
Duration	0.06	0.07	0.04	0.00***	0.02	0.09	0.00***	0.03	0.08	0.06	0.00***	0.01***	0.13
Hours	0.02	0.03	0.01	0.02**	0.01	0.03	0.00***	0.01	0.02	0.03	0.04**	0.00***	0.29
Quality	0.01	0.02	0.01	0.01**	0.01	0.01	0.97	0.01	0.01	0.01	0.79	0.46	0.32
Savings	0.02	0.02	0.01	0.00***	0.00	0.03	0.00***	0.01	0.01	0.02	0.94	0.51	0.58
Choices	0.01	0.01	0.01	0.24	0.01	0.02	0.01***	0.01	0.02	0.01	0.06*	0.43	0.23
Factors: impersonal only	0.14	0.13	0.16	0.06*	0.12	0.16	0.00***	0.17	0.11	0.15	0.00***	0.17	0.00***
Discrimination	0.10	0.08	0.12	0.00***	0.09	0.11	0.02**	0.13	0.06	0.10	0.00***	0.08*	0.00***
Norms	0.07	0.07	0.08	0.08*	0.04	0.10	0.00***	0.08	0.08	0.07	0.89	0.50	0.62
Politics	0.03	0.03	0.03	0.47	0.02	0.03	0.06*	0.05	0.01	0.02	0.00***	0.00***	0.13
Longevity	0.01	0.01	0.00	0.01**	0.00	0.01	0.00***	0.01	0.00	0.01	0.13	0.16	0.01***
Leadership	0.02	0.02	0.02	0.93	0.01	0.03	0.00***	0.03	0.02	0.02	0.31	0.03**	0.28
Factors: both	0.25	0.26	0.24	0.33	0.14	0.34	0.00***	0.30	0.22	0.23	0.00***	0.00***	0.58
Gender wage gap	0.17	0.18	0.17	0.56	0.09	0.25	0.00***	0.21	0.15	0.16	0.00***	0.00***	0.67
Gap	0.02	0.02	0.02	0.52	0.02	0.02	1.00	0.02	0.02	0.02	0.97	0.71	0.69
Labor market	0.04	0.05	0.04	0.19	0.03	0.05	0.00***	0.05	0.04	0.04	0.52	0.40	0.87
Factors: neither	0.48	0.45	0.51	0.00***	0.65	0.33	0.00***	0.43	0.51	0.49	0.00***	0.01***	0.50
Unclear	0.02	0.02	0.02	0.43	0.03	0.01	0.00***	0.02	0.02	0.02	0.82	0.94	0.76
N/A	0.07	0.08	0.07	0.44	0.12	0.03	0.00***	0.08	0.07	0.07	0.44	0.28	0.80
Don't know	0.12	0.09	0.16	0.00***	0.20	0.06	0.00***	0.10	0.11	0.16	0.44	0.00***	0.00***
None	0.08	0.08	0.09	0.60	0.12	0.05	0.00***	0.07	0.08	0.09	0.46	0.09*	0.37
Closing	0.03	0.04	0.02	0.01***	0.01	0.04	0.00***	0.02	0.04	0.03	0.02**	0.04**	0.64
Deserve same	0.06	0.05	0.07	0.08*	0.07	0.06	0.63	0.06	0.07	0.06	0.83	0.69	0.54
No gap	0.05	0.06	0.03	0.00***	0.03	0.06	0.00***	0.03	0.10	0.03	0.00***	0.68	0.00***
Male gap	0.01	0.01	0.00	0.02**	0.00	0.01	0.14	0.00	0.01	0.01	0.62	0.67	0.93
Male discrimination	0.00	0.00	0.00	0.02**	0.00	0.00	0.80	0.00	0.00	0.00	0.29	0.06*	0.28
Number	0.02	0.01	0.02	0.79	0.01	0.02	0.77	0.01	0.02	0.01	0.09*	0.60	0.02**
Next generation	0.00	0.00	0.00	0.18	0.00	0.00	0.52	0.00	0.00	0.00	0.94	0.38	0.44
Other	0.08	0.07	0.08	0.09*	0.09	0.06	0.01***	0.10	0.06	0.07	0.01***	0.04**	0.44
Observations	2964	1476	1488	2964	1352	1612	2964	975	878	1111	1853	2086	1989

Notes: The table shows the share of respondents that mention the respective (type of) factor by gender, financial literacy and political affiliation as well as the p-values resulting from t-tests comparing the mean values; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

G Prior Beliefs x Factors

Figure A.3 shows how the factors determined from the open-ended responses (as described in Section 3.2) correlate with respondents' (standardized) prior beliefs. A similar picture emerges when all categories coded as *Neither* are included.

A.3: Prior Beliefs: Personal and Impersonal Factors



Notes: The figure shows how the factors mentioned in the qualitative prior beliefs correlate with the quantitative prior beliefs about the size of the gender pension gap. The figure presents the point estimates and the 99% confidence intervals.

H Weighted Main Results

A.7: Treatment Effects on Perceptions, Drivers and Policy Demand (weighted)

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap							
	(1)	(2)	(3)	(4)			
	Updating		Direct Effects	Fair			
Treat	-8.877***	-5.701***	0.263***	-0.446***			
	(0.935)	(1.054)	(0.033)	(0.034)			
GPG Bias	0.512***	0.431***	0.000	-0.003***			
	(0.027)	(0.039)	(0.000)	(0.001)			
Treat × GPG Bias		0.169***					
		(0.053)					
Observations	2964	2964	2964	2964			

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1)	(2)	(3)	(4)	(5)	(6)
	Care	Wages	Profession	Hours	Norms	Impact Index
Treat	0.090***	0.091***	0.009	0.008	0.047	0.049**
	(0.033)	(0.032)	(0.035)	(0.038)	(0.031)	(0.022)
Observations	2964	2964	2964	2964	2964	2964

Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	-0.023	0.027	0.034	0.086**	0.061*	0.034	0.037*
	(0.035)	(0.037)	(0.036)	(0.034)	(0.036)	(0.034)	(0.021)
Observations	2964	2964	2964	2964	2964	2964	2964

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand using a survey weight which corrects for the high proportion of low- and middle-income individuals. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

I Interaction with Prior Beliefs

A.8: Heterogeneity in Treatment Effects by Prior Beliefs

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1)	(2)	(3)
	Updating	Direct	Fair Effects
Treat	-8.362*** (0.973)	0.262*** (0.032)	-0.431*** (0.033)
GPG Bias	16.099*** (1.418)	-0.003 (0.022)	-0.100*** (0.025)
Treat × GPG Bias	5.966*** (1.952)	0.013 (0.032)	0.021 (0.037)
Observations	2964	2964	2964
Control mean	-2.44	3.93	4.50

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1)	(2)	(3)	(4)	(5)	(6)
	Care	Wages	Profession	Hours	Norms	Impact Index
Treat	0.073** (0.032)	0.100*** (0.031)	0.005 (0.035)	0.002 (0.036)	0.034 (0.031)	0.043* (0.022)
GPG Bias	0.046* (0.024)	0.083*** (0.023)	0.030 (0.025)	0.020 (0.025)	0.053** (0.024)	0.046*** (0.017)
Treat × GPG Bias	-0.032 (0.035)	-0.057* (0.033)	-0.066* (0.037)	-0.040 (0.036)	-0.023 (0.034)	-0.043* (0.024)
Observations	2964	2964	2964	2964	2964	2964
Control mean	6.32	6.63	6.58	5.78	6.30	–

Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	-0.026 (0.033)	0.027 (0.034)	0.025 (0.034)	0.072** (0.033)	0.070** (0.034)	0.044 (0.033)	0.035* (0.020)
GPG Bias	-0.011 (0.022)	0.003 (0.021)	-0.006 (0.023)	0.007 (0.024)	-0.018 (0.024)	-0.046** (0.022)	-0.012 (0.015)
Treat × GPG Bias	-0.007 (0.031)	-0.061* (0.031)	0.038 (0.032)	-0.000 (0.032)	0.008 (0.033)	0.036 (0.030)	0.002 (0.020)
Observations	2964	2964	2964	2964	2964	2964	2964
Control mean	6.28	5.31	7.11	6.37	5.48	4.77	–

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. *GPG Bias* is the standardized difference between the true value (\$66) and the winsorized prior beliefs about the size of the gender pension gap. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.9: Heterogeneity in Treatment Effects by Prior Beliefs and Financial Literacy

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1) Updating	(2) Direct Effects	(3) Fair
Treat	-5.148*** (1.789)	0.241*** (0.046)	-0.322*** (0.051)
FinLit: high	-0.255 (1.559)	-0.089* (0.049)	-0.148*** (0.051)
Treat × FinLit: high	-6.304*** (2.037)	0.034 (0.064)	-0.217*** (0.067)
GPG Bias	15.444*** (1.707)	0.004 (0.025)	-0.042 (0.029)
Treat × GPG Bias	4.670** (2.349)	-0.005 (0.037)	-0.036 (0.045)
FinLit: high × GPG Bias	1.999 (3.001)	-0.023 (0.051)	-0.223*** (0.057)
Treat × FinLit: high × GPG Bias	5.652 (4.041)	0.062 (0.073)	0.233*** (0.080)
Observations	2964	2964	2964

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1) Care	(2) Wages	(3) Profession	(4) Hours	(5) Norms	(6) Impact Index
Treat	0.031 (0.048)	0.081* (0.047)	-0.017 (0.052)	-0.021 (0.052)	0.002 (0.046)	0.015 (0.035)
FinLit: high	0.136*** (0.050)	0.206*** (0.049)	0.164*** (0.055)	-0.020 (0.056)	0.075 (0.048)	0.112*** (0.036)
Treat × FinLit: high	0.073 (0.065)	0.039 (0.063)	0.045 (0.070)	0.044 (0.073)	0.060 (0.062)	0.052 (0.045)
GPG Bias	0.032 (0.028)	0.049* (0.027)	0.023 (0.029)	0.021 (0.028)	0.028 (0.029)	0.031 (0.020)
Treat × GPG Bias	-0.049 (0.040)	-0.036 (0.040)	-0.054 (0.044)	-0.039 (0.042)	-0.021 (0.041)	-0.040 (0.029)
FinLit: high × GPG Bias	0.055 (0.054)	0.128** (0.054)	0.028 (0.060)	-0.003 (0.059)	0.096* (0.052)	0.061* (0.037)
Treat × FinLit: high × GPG Bias	0.057 (0.082)	-0.078 (0.073)	-0.049 (0.087)	-0.011 (0.083)	-0.012 (0.074)	-0.018 (0.051)
Observations	2964	2964	2964	2964	2964	2964

Panel C: Policy Demand							
	(1) Establish	(2) Contribute	(3) Match	(4) Education	(5) Spouses	(6) Social Security	(7) Policy Index
Treat	-0.052 (0.044)	-0.019 (0.046)	-0.004 (0.047)	0.066 (0.048)	0.065 (0.048)	0.052 (0.046)	0.018 (0.030)
FinLit: high	-0.063 (0.052)	-0.254*** (0.053)	0.124** (0.051)	0.093* (0.053)	-0.098* (0.054)	-0.274*** (0.052)	-0.079** (0.032)
Treat × FinLit: high	0.041 (0.066)	0.085 (0.068)	0.052 (0.067)	0.009 (0.066)	0.011 (0.068)	-0.023 (0.065)	0.029 (0.041)
GPG Bias	-0.002 (0.024)	0.013 (0.024)	-0.014 (0.026)	0.007 (0.028)	-0.021 (0.026)	-0.022 (0.023)	-0.006 (0.018)
Treat × GPG Bias	-0.031 (0.035)	-0.067* (0.036)	0.030 (0.037)	-0.008 (0.039)	0.015 (0.037)	-0.002 (0.033)	-0.010 (0.024)
FinLit: high × GPG Bias	-0.030 (0.054)	-0.031 (0.052)	0.032 (0.054)	0.000 (0.053)	0.012 (0.060)	-0.090 (0.056)	-0.018 (0.033)
Treat × FinLit: high × GPG Bias	0.081 (0.076)	0.009 (0.074)	0.023 (0.074)	0.026 (0.071)	-0.027 (0.081)	0.143* (0.074)	0.042 (0.045)
Observations	2964	2964	2964	2964	2964	2964	2964

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. *GPG Bias* is the standardized difference between the true value (\$66) and the winsorized prior beliefs about the size of the gender pension gap. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.10: Heterogeneity in Treatment Effects by Prior Beliefs and Gender

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1)	(2)	(3)
	Updating	Direct Effects	Fair
Treat	-9.843*** (1.076)	0.212*** (0.044)	-0.449*** (0.047)
Female	-0.494 (1.513)	0.412*** (0.047)	-0.093* (0.048)
Treat × Female	2.762 (1.946)	0.102 (0.063)	0.037 (0.066)
GPG Bias	18.057*** (2.248)	-0.079** (0.034)	-0.140*** (0.048)
Treat × GPG Bias	2.272 (2.983)	0.030 (0.050)	0.028 (0.065)
Female × GPG Bias	-2.897 (2.874)	0.116*** (0.044)	0.061 (0.056)
Treat × Female × GPG Bias	5.703 (3.934)	-0.021 (0.064)	-0.008 (0.080)
Observations	2964	2964	2964

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1)	(2)	(3)	(4)	(5)	(6)
	Care	Wages	Profession	Hours	Norms	Impact Index
Treat	0.060 (0.045)	0.038 (0.046)	0.063 (0.048)	-0.011 (0.051)	0.018 (0.044)	0.034 (0.031)
Female	0.170*** (0.048)	0.053 (0.046)	0.011 (0.053)	-0.052 (0.054)	0.054 (0.046)	0.047 (0.034)
Treat × Female	0.021 (0.064)	0.125** (0.063)	-0.118* (0.070)	0.024 (0.073)	0.037 (0.062)	0.018 (0.044)
GPG Bias	0.074* (0.043)	0.102*** (0.039)	0.029 (0.047)	0.040 (0.045)	0.016 (0.042)	0.052* (0.030)
Treat × GPG Bias	-0.100* (0.056)	-0.054 (0.052)	-0.122** (0.061)	-0.116* (0.060)	0.046 (0.056)	-0.069* (0.038)
Female × GPG Bias	-0.042 (0.051)	-0.025 (0.048)	0.000 (0.056)	-0.030 (0.054)	0.057 (0.051)	-0.008 (0.036)
Treat × Female × GPG Bias	0.107 (0.073)	-0.010 (0.067)	0.095 (0.078)	0.120 (0.075)	-0.109 (0.072)	0.041 (0.049)
Observations	2964	2964	2964	2964	2964	2964

Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	0.056 (0.049)	0.115** (0.050)	0.050 (0.049)	0.073 (0.047)	0.090* (0.049)	0.107** (0.048)	0.082*** (0.029)
Female	0.167*** (0.049)	0.086* (0.051)	0.065 (0.050)	0.045 (0.051)	0.092* (0.051)	-0.013 (0.048)	0.074** (0.030)
Treat × Female	-0.160** (0.067)	-0.171** (0.069)	-0.046 (0.067)	0.000 (0.066)	-0.036 (0.069)	-0.120* (0.065)	-0.089** (0.041)
GPG Bias	-0.082** (0.039)	-0.084** (0.040)	-0.060 (0.039)	-0.011 (0.044)	-0.070* (0.040)	-0.113*** (0.037)	-0.070*** (0.024)
Treat × GPG Bias	0.063 (0.051)	-0.014 (0.051)	0.092* (0.054)	0.037 (0.056)	0.054 (0.054)	0.140*** (0.049)	0.062** (0.031)
Female × GPG Bias	0.104** (0.047)	0.127*** (0.047)	0.081* (0.048)	0.026 (0.052)	0.078 (0.049)	0.098** (0.046)	0.086*** (0.030)
Treat × Female × GPG Bias	-0.100 (0.065)	-0.060 (0.066)	-0.080 (0.067)	-0.058 (0.069)	-0.069 (0.068)	-0.158** (0.062)	-0.088** (0.041)
Observations	2964	2964	2964	2964	2964	2964	2964

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. *GPG Bias* is the standardized difference between the true value (\$66) and the winsorized prior beliefs about the size of the gender pension gap. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.11: Heterogeneity in Treatment Effects by Prior Beliefs and Political Affiliation

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1)	(2)	(3)
	Updating	Direct Effects	Fair
Treat	-7.509*** (1.605)	0.310*** (0.057)	-0.491*** (0.064)
Democrat	2.173 (1.937)	0.161*** (0.061)	-0.136** (0.063)
Treat × Democrat	-2.833 (2.430)	-0.097 (0.081)	0.102 (0.084)
GPG Bias	16.267*** (2.684)	-0.000 (0.042)	-0.088* (0.046)
Treat × GPG Bias	1.856 (3.772)	0.038 (0.060)	0.001 (0.068)
Democrat × GPG Bias	2.119 (3.737)	0.002 (0.058)	0.008 (0.061)
Treat × Democrat × GPG Bias	4.016 (5.144)	-0.065 (0.082)	-0.004 (0.090)
Independent	0.032 (1.662)	0.009 (0.055)	-0.174*** (0.060)
Treat × Independent	0.169 (2.297)	-0.044 (0.076)	0.067 (0.084)
Independent × GPG Bias	-1.968 (3.435)	-0.009 (0.055)	-0.032 (0.062)
Treat × Independent × GPG Bias	6.628 (4.794)	-0.005 (0.078)	0.050 (0.095)
Observations	2964	2964	2964

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1)	(2)	(3)	(4)	(5)	(6)
	Care	Wages	Profession	Hours	Norms	Impact Index
Treat	0.186*** (0.062)	0.174*** (0.060)	0.001 (0.062)	0.118* (0.068)	0.059 (0.062)	0.108** (0.042)
Democrat	0.131** (0.061)	0.143** (0.058)	-0.022 (0.064)	0.109 (0.068)	0.082 (0.059)	0.089** (0.042)
Treat × Democrat	-0.177** (0.081)	-0.152** (0.076)	-0.094 (0.087)	-0.212** (0.093)	-0.042 (0.079)	-0.135** (0.055)
GPG Bias	0.077 (0.048)	0.121*** (0.043)	0.037 (0.044)	-0.023 (0.053)	0.057 (0.046)	0.054 (0.034)
Treat × GPG Bias	-0.070 (0.066)	-0.094 (0.063)	0.003 (0.068)	-0.023 (0.071)	0.050 (0.065)	-0.027 (0.044)
Democrat × GPG Bias	-0.022 (0.060)	-0.040 (0.057)	-0.006 (0.060)	0.030 (0.067)	-0.069 (0.059)	-0.021 (0.043)
Treat × Democrat × GPG Bias	0.063 (0.087)	0.033 (0.080)	-0.083 (0.091)	0.003 (0.093)	-0.003 (0.086)	0.003 (0.057)
Independent	0.024 (0.059)	-0.048 (0.059)	-0.094 (0.063)	0.049 (0.064)	-0.075 (0.058)	-0.029 (0.042)
Treat × Independent	-0.150* (0.082)	-0.068 (0.081)	0.096 (0.085)	-0.119 (0.090)	-0.024 (0.080)	-0.053 (0.056)
Independent × GPG Bias	-0.061 (0.061)	-0.062 (0.058)	-0.011 (0.061)	0.072 (0.065)	0.042 (0.060)	-0.004 (0.043)
Treat × Independent × GPG Bias	0.042 (0.088)	0.065 (0.087)	-0.109 (0.093)	-0.036 (0.092)	-0.178** (0.087)	-0.043 (0.060)
Observations	2964	2964	2964	2964	2964	2964

Heterogeneity in Treatment Effects by Prior Beliefs and Political Affiliation (continued)

Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	0.073 (0.065)	0.048 (0.065)	0.041 (0.065)	0.129** (0.063)	0.156** (0.065)	0.102* (0.061)	0.091** (0.038)
Democrat	0.177*** (0.064)	0.044 (0.065)	0.100 (0.063)	0.011 (0.065)	0.167** (0.066)	0.157** (0.062)	0.109*** (0.039)
Treat × Democrat	-0.081 (0.084)	0.005 (0.086)	-0.091 (0.083)	-0.050 (0.084)	-0.134 (0.087)	-0.037 (0.083)	-0.065 (0.051)
GPG Bias	-0.031 (0.044)	-0.030 (0.046)	-0.009 (0.040)	0.024 (0.047)	-0.028 (0.046)	-0.047 (0.041)	-0.020 (0.027)
Treat × GPG Bias	0.055 (0.064)	-0.024 (0.065)	0.049 (0.058)	0.029 (0.065)	-0.001 (0.064)	0.057 (0.060)	0.027 (0.040)
Democrat × GPG Bias	0.094* (0.056)	0.080 (0.056)	0.040 (0.055)	-0.008 (0.063)	0.085 (0.062)	0.053 (0.055)	0.057 (0.036)
Treat × Democrat × GPG Bias	-0.139* (0.080)	-0.092 (0.080)	-0.031 (0.078)	-0.045 (0.086)	-0.081 (0.084)	-0.054 (0.078)	-0.074 (0.051)
Independent	0.099 (0.063)	-0.042 (0.062)	-0.055 (0.064)	-0.017 (0.061)	0.042 (0.063)	0.083 (0.059)	0.018 (0.037)
Treat × Independent	-0.191** (0.086)	-0.059 (0.087)	0.040 (0.087)	-0.109 (0.084)	-0.112 (0.085)	-0.120 (0.081)	-0.092* (0.051)
Independent × GPG Bias	-0.029 (0.056)	0.017 (0.057)	-0.022 (0.055)	-0.037 (0.058)	-0.043 (0.058)	-0.039 (0.054)	-0.026 (0.036)
Treat × Independent × GPG Bias	-0.037 (0.082)	-0.014 (0.084)	-0.008 (0.080)	-0.035 (0.083)	0.091 (0.083)	-0.009 (0.077)	-0.002 (0.052)
Observations	2964	2964	2964	2964	2964	2964	2964

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. *GPG Bias* is the standardized difference between the true value (\$66) and the winsorized prior beliefs about the size of the gender pension gap. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.12: Heterogeneity in Treatment Effects by Prior Beliefs and Factor Type

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1)	(2)	(3)
	Updating	Direct Effects	Fair
Treat	-8.364*** (1.203)	0.219*** (0.037)	-0.447*** (0.039)
Factors: personal only	-0.391 (2.036)	-0.265*** (0.054)	0.124* (0.068)
Treat × Factors: personal only	-3.077 (2.489)	0.212** (0.088)	-0.001 (0.102)
GPG Bias	16.952*** (1.569)	0.006 (0.024)	-0.100*** (0.028)
Treat × GPG Bias	4.282* (2.197)	-0.006 (0.035)	0.042 (0.041)
Factors: personal only × GPG Bias	-1.021 (5.716)	-0.076 (0.060)	-0.022 (0.081)
Treat × Factors: personal only × GPG Bias	8.037 (7.016)	0.058 (0.122)	-0.028 (0.139)
Factors: impersonal only	-0.256 (1.895)	0.079 (0.073)	-0.314*** (0.063)
Treat × Factors: impersonal only	1.031 (2.602)	0.077 (0.098)	0.166* (0.090)
Factors: impersonal only × GPG Bias	-7.351* (4.007)	0.004 (0.085)	0.035 (0.081)
Treat × Factors: impersonal only × GPG Bias	10.028* (5.616)	0.076 (0.106)	-0.174 (0.123)
Observations	2964	2964	2964

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1)	(2)	(3)	(4)	(5)	(6)
	Care	Wages	Profession	Hours	Norms	Impact Index
Treat	0.068* (0.038)	0.116*** (0.037)	0.025 (0.041)	0.006 (0.042)	0.021 (0.037)	0.048* (0.027)
Factors: personal only	0.082 (0.069)	0.068 (0.067)	0.449*** (0.064)	0.365*** (0.074)	-0.015 (0.067)	0.190*** (0.044)
Treat × Factors: personal only	0.143 (0.100)	-0.046 (0.097)	0.026 (0.089)	0.056 (0.105)	0.032 (0.094)	0.042 (0.060)
GPG Bias	0.035 (0.026)	0.082*** (0.027)	0.028 (0.028)	0.009 (0.028)	0.035 (0.026)	0.038** (0.019)
Treat × GPG Bias	-0.015 (0.039)	-0.068* (0.037)	-0.039 (0.041)	-0.016 (0.041)	-0.015 (0.037)	-0.031 (0.027)
Factors: personal only × GPG Bias	0.037 (0.095)	-0.060 (0.071)	-0.109 (0.072)	0.091 (0.083)	0.001 (0.097)	-0.008 (0.052)
Treat × Factors: personal only × GPG Bias	-0.043 (0.151)	0.150 (0.123)	-0.020 (0.136)	-0.103 (0.134)	0.067 (0.144)	0.010 (0.081)
Factors: impersonal only	0.031 (0.062)	0.161*** (0.057)	-0.006 (0.076)	-0.184** (0.075)	0.159*** (0.056)	0.032 (0.043)
Treat × Factors: impersonal only	-0.074 (0.089)	-0.093 (0.084)	-0.111 (0.104)	-0.011 (0.107)	0.057 (0.083)	-0.046 (0.059)
Factors: impersonal only × GPG Bias	0.055 (0.067)	0.031 (0.061)	0.033 (0.084)	-0.002 (0.070)	0.166*** (0.060)	0.057 (0.040)
Treat × Factors: impersonal only × GPG Bias	-0.103 (0.096)	0.014 (0.091)	-0.174 (0.116)	-0.115 (0.099)	-0.132 (0.105)	-0.102* (0.061)
Observations	2964	2964	2964	2964	2964	2964

Heterogeneity in Treatment Effects by Prior Beliefs and Factor Type (continued)

Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	-0.038	-0.000	0.033	0.088**	0.055	0.056	0.032
	(0.039)	(0.040)	(0.039)	(0.039)	(0.039)	(0.038)	(0.024)
Factors: personal only	-0.050	-0.132*	0.040	0.053	-0.144**	-0.025	-0.043
	(0.073)	(0.070)	(0.072)	(0.070)	(0.070)	(0.066)	(0.040)
Treat × Factors: pers. only	0.031	0.113	-0.071	0.012	0.112	-0.062	0.023
	(0.109)	(0.104)	(0.108)	(0.100)	(0.103)	(0.093)	(0.060)
GPG Bias	-0.011	0.003	-0.011	-0.011	-0.042*	-0.041*	-0.019
	(0.025)	(0.024)	(0.025)	(0.027)	(0.025)	(0.024)	(0.017)
Treat × GPG Bias	0.001	-0.024	0.023	0.015	0.036	0.027	0.013
	(0.035)	(0.035)	(0.035)	(0.036)	(0.036)	(0.033)	(0.023)
Factors: pers. only × GPG Bias	0.029	0.067	0.015	0.072	0.063	-0.028	0.036
	(0.086)	(0.068)	(0.081)	(0.077)	(0.076)	(0.062)	(0.043)
Treat × Factors: pers. only × GPG Bias	-0.041	-0.260**	0.116	-0.044	0.067	0.141	-0.004
	(0.137)	(0.117)	(0.127)	(0.119)	(0.121)	(0.111)	(0.073)
Factors: impersonal only	0.002	-0.089	-0.059	0.033	-0.173**	0.002	-0.047
	(0.072)	(0.074)	(0.073)	(0.068)	(0.081)	(0.074)	(0.041)
Treat × Factors: impers. only	0.053	0.115	0.007	-0.104	0.050	-0.038	0.014
	(0.097)	(0.102)	(0.097)	(0.094)	(0.107)	(0.100)	(0.058)
Factors: impers. only × GPG Bias	-0.014	-0.018	0.036	0.096	0.220**	-0.025	0.049
	(0.065)	(0.061)	(0.085)	(0.067)	(0.089)	(0.082)	(0.043)
Treat × Factors: impers. only × GPG Bias	-0.043	-0.165**	0.050	-0.093	-0.323***	0.002	-0.095
	(0.096)	(0.084)	(0.115)	(0.100)	(0.108)	(0.103)	(0.058)
Observations	2964	2964	2964	2964	2964	2964	2964

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. *GPG Bias* is the standardized difference between the true value (\$66) and the winsorized prior beliefs about the size of the gender pension gap. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.13: Heterogeneity in Treatment Effects by Gender and Retirement Status

Panel A: Beliefs, Perceived Direct Effects and Fairness of the Gender Pension Gap			
	(1)	(2)	(3)
	Updating	Direct Effects	Fair
Treat	-9.017*** (1.425)	0.213*** (0.053)	-0.400*** (0.056)
Female	-0.637 (1.822)	0.371*** (0.054)	-0.060 (0.055)
Treat × Female	3.076 (2.321)	0.135* (0.072)	-0.006 (0.076)
Retiree	3.107 (2.315)	-0.044 (0.078)	0.182** (0.091)
Treat × Retiree	-2.885 (2.229)	-0.018 (0.094)	-0.162 (0.104)
Female × Retiree	1.259 (3.423)	0.184 (0.115)	-0.117 (0.114)
Treat × Female × Retiree	-2.175 (4.284)	-0.177 (0.164)	0.137 (0.160)
Observations	2964	2964	2964

Panel B: Perceived Drivers of the Gender Pension Gap						
	(1)	(2)	(3)	(4)	(5)	(6)
	Care	Wages	Profession	Hours	Norms	Impact Index
Treat	0.052 (0.055)	0.012 (0.055)	0.041 (0.058)	-0.019 (0.060)	-0.017 (0.053)	0.014 (0.037)
Female	0.145*** (0.055)	0.022 (0.053)	-0.026 (0.060)	-0.067 (0.060)	0.022 (0.053)	0.019 (0.039)
Treat × Female	0.024 (0.074)	0.160** (0.072)	-0.128 (0.080)	-0.005 (0.082)	0.073 (0.071)	0.025 (0.051)
Retiree	0.043 (0.087)	-0.121 (0.087)	-0.089 (0.095)	-0.001 (0.097)	-0.076 (0.085)	-0.049 (0.061)
Treat × Retiree	0.033 (0.098)	0.087 (0.099)	0.073 (0.103)	0.031 (0.113)	0.105 (0.097)	0.066 (0.067)
Female × Retiree	0.103 (0.110)	0.143 (0.111)	0.113 (0.126)	0.027 (0.131)	0.112 (0.108)	0.099 (0.083)
Treat × Female × Retiree	-0.005 (0.154)	-0.168 (0.153)	0.103 (0.171)	0.181 (0.184)	-0.131 (0.153)	-0.004 (0.110)
Observations	2964	2964	2964	2964	2964	2964

Panel C: Policy Demand							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Establish	Contribute	Match	Education	Spouses	Social Security	Policy Index
Treat	0.033 (0.058)	0.098* (0.058)	0.055 (0.058)	0.021 (0.055)	0.040 (0.058)	0.086 (0.056)	0.055 (0.035)
Female	0.169*** (0.055)	0.086 (0.056)	0.067 (0.057)	-0.000 (0.058)	0.069 (0.058)	-0.034 (0.055)	0.060* (0.034)
Treat × Female	-0.150** (0.076)	-0.138* (0.077)	-0.039 (0.077)	0.041 (0.075)	-0.009 (0.078)	-0.103 (0.074)	-0.066 (0.047)
Retiree	0.030 (0.094)	0.072 (0.097)	0.031 (0.092)	-0.119 (0.090)	-0.132 (0.093)	-0.008 (0.089)	-0.021 (0.054)
Treat × Retiree	0.062 (0.109)	0.049 (0.114)	-0.028 (0.107)	0.160 (0.104)	0.149 (0.108)	0.048 (0.106)	0.073 (0.064)
Female × Retiree	-0.044 (0.119)	0.007 (0.126)	-0.013 (0.118)	0.141 (0.121)	0.031 (0.119)	0.048 (0.116)	0.028 (0.070)
Treat × Female × Retiree	0.013 (0.167)	-0.147 (0.177)	-0.034 (0.163)	-0.102 (0.162)	-0.018 (0.169)	-0.029 (0.163)	-0.053 (0.100)
Observations	2964	2964	2964	2964	2964	2964	2964

Notes: The table shows the effect of receiving information about the size of the gender pension gap on perceptions of the gender pension gap and policy demand. All outcomes except *Updating* are measured on an 11-point Likert scale ranging from 0=“strongly disagree” to 10=“strongly agree” and standardized with the mean and standard deviation of the control group. *Updating* is defined as the difference between respondents’ posterior and prior beliefs about the size of a woman’s relative pension. Robust standard errors are shown in parentheses. All specifications control for the following variables: gender, age, US census region, US born, education, financial literacy (self-assessed and measured), trust in public institutions, worries about the economy, views about gender equality and divorce, winsorized prior beliefs, marital status, employment status, income, ethnicity/ race, political affiliation, indicator for having a 401(k) plan; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

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Friedrich Schiller University Jena

Faculty of Economics and Business Administration

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D-07743 Jena, Germany

Email: office.jerp@uni-jena.de

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