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BILLIONAIRE SUPERSTAR: PUBLIC IMAGE AND DEMAND FOR TAXATION

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ABSTRACT

In the United States, there are 741 billionaires with a combined net worth of $5.2 trillion. These billionaires live highly public lives, with some achieving superstar status. Despite growing inequality, billionaires face effective tax rates lower than the average American. Is this due to a lack of public support for taxation? Is it due to misperceptions about billionaires' lives and careers? To address these questions, we conducted a survey experiment with a sample of 9,013 Americans. We designed multiple treatments based on research on preferences for redistribution and arguments made by academics, journalists, and the general public to increase taxes on the ultra-wealthy. Our findings reveal significant misperceptions about billionaires, with individuals updating their beliefs in response to information. Contrary to expert predictions that all treatments would positively affect the demand for taxation, most treatments have a null or negative effect. Providing information about the lavish lifestyles of billionaires does have a robust positive effect on the demand for taxation.

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A data appendix is available at
http://www.nber.org/data-appendix/w32712
A randomized controlled trials registry entry is available at
https://www.socialscienceregistry.org/trials/11845

1 Introduction

Due to scalable markets and winner-takes-all dynamics (Rosen, 1981), a select group of individuals can achieve immense fortunes. The epitome of this superstar phenomenon can be seen in billionaires. In the United States, there are 741 billionaires with a combined net worth of $5.2 trillion.[1] Their fortunes are part of a broader trend of increasing wealth concentration at the very top (Piketty and Saez, 2006; Saez and Zucman, 2020). For example, the top 1% Americans own 30% of the total net worth.[2] On the other end of the income distribution, the rates of homelessness have reached a record high, with around one in every 500 Americans experiencing homelessness.[3] The middle class is also struggling: only half of the children born in the 1980s earn more than their parents did (Chetty et al., 2017), and most Americans say they live paycheck to paycheck.[4]

The fortunes of the ultra-wealthy are far from being hidden from the public eye. In contrast, American billionaires lead public lives. Their romantic relationships and other aspects of their personal lives are widely covered in the media. A few billionaires have run for president of the United States, and one of them was elected president. Even some of the most beloved superhero characters, such as Iron Man and Batman, are portrayed as billionaires.[5] Considering the extreme inequality, some may expect Americans to rally for higher taxes on billionaires. However, billionaires are estimated to pay lower effective tax rates than the average American (e.g., New York Times, 2019; Leiserson and Yagan, 2021; ProPublica, 2023; EU Tax Observatory, 2024; Zucman, 2024). This could change soon, as there is growing interest among policymakers in taxing billionaires. For example, Congresswoman Alexandria Ocasio-Cortez has been vocal about her advocacy for a wealth tax, proposing a 70% marginal tax rate on income over $10 million (CBS, 2019). President Biden, although not as radical, has also supported higher taxes on the wealthy, proposing to raise the top income tax rate to 39.6% and increasing capital gains taxes for those earning over $1 million annually (Tax Foundation, 2023).

In this paper, we conduct a pre-registered survey experiment to study Americans' demand

[1] Estimates from the Americans for Tax Fairness (ATF) as of November 2023: https://americansfortaxfairness.org/u-s-billionaires-now-worth-record-5-2-trillion/.

[2] Sources: https://fred.stlouisfed.org/series/WFRBSTP1300 and https://fred.stlouisfed.org/series/WFRBS99T999273.

[3] According to data from the Department of Housing and Urban Development, 653,104 people in the United States were homeless in January 2023 (DeParle, 2023).

[4] According to a 2024 survey, 65% of Americans say that they live paycheck to paycheck (CNBC, 2024).

[5] Tony Stark, also known as Iron Man, is portrayed as a billionaire, a genius inventor, and an industrialist who owns Stark Industries. His wealth and resources are key elements of his character. Similarly, Bruce Wayne, also known as Batman, is often portrayed as a billionaire in various comic books, movies, and television shows. As the owner of Wayne Enterprises, his wealth provides the resources needed for his crime-fighting activities.

for taxing billionaires and the companies they founded. We measure the public's perceptions of billionaires, including their lifestyles, level of wealth, and business acumen. Furthermore, we use experimental variation to assess whether providing information about billionaires significantly affects the demand for taxation.

At the beginning of the survey, each subject is randomly assigned to one of the following five billionaires, chosen from Forbes World's Billionaires List of 2023: Elon Musk, Jeff Bezos, Bill Gates, Mark Zuckerberg, and Michael Bloomberg. Subjects are randomized into different treatment arms. We begin by asking respondents a few questions related to the billionaire they have been assigned. Then, there is an information-provision stage, in which the respondents are randomly allocated to a piece of information about the billionaire. For example, in the luxury treatment arm, the respondent may be shown a picture of a lavish home owned by the billionaire. We measured some beliefs related to the information, both before the information-provision stage (referred to as prior beliefs) and after (referred to as posterior beliefs). These data allow us to document whether the subjects had significant misperceptions initially and whether they update their beliefs in response to treatments. The last part of the survey consists of a battery of questions to serve as outcome variables, such as the respondent's preferred income tax rate for billionaires.

We study four different treatment arms, each inspired by prior research on the demand for redistribution and by the arguments made by academics, journalists, and the general public in favor of taxing the ultra-wealthy.

In the *luxury treatment*, we explore perceptions about the consumption habits of billionaires. Some billionaires seem to have made their frugality a central tenet of their public personas. For example, Warren Buffett is renowned for his modest living; he resides in the same house he purchased in the late 1950s. However, other billionaires live in extravagant homes that reflect their immense wealth. In this treatment, we provide a picture of one of the luxurious homes purchased by the billionaire, as well as information about the home's price and characteristics.

In the *luck treatment*, we provide information on the role that luck played in the buildup of billionaires' wealth. According to a large body of work on social preferences (e.g., Almås et al., 2020), individuals are more inclined to reduce the inequalities that arise from luck (e.g., a coin toss) than those that result from effort (e.g., performance in a task). In this arm, we randomized subjects with information demonstrating that factors other than the billionaire's honest and hard work played a key role in how he made his fortune. For example, we provide an excerpt from an interview with Jeff Bezos in which he explains that luck played a major role in his success with Amazon.

In the *earnings treatment*, we teach subjects about how much billionaires actually earn.

According to a body of work on social preferences, some individuals are averse to inequality (e.g., Fehr ⓡ al., forthcoming). Indeed, supporters of higher taxation often highlight the extraordinary levels of wealth accumulated by the ultra-rich (Zucman, 2024). There is evidence that individuals have significant misperceptions about the income distribution, such as their own rank or the degree of income inequality (Cruces et al., 2013; Kuziemko et al., 2015). We provide a side-by-side comparison between the earnings of billionaires and the earnings of the average American. For example, we mention that since 2012, Elon Musk has made $16.18 billion per year on average. Since subjects may not be able to wrap their heads around how large a billion is, we translated the information into an hourly basis: divided by the 8,760 hours in a year, Elon earned $1,847,000 per hour during this period.

In the last treatment arm, we explore perceptions about the taxes paid by billionaires. There is evidence suggesting that fairness considerations may play a significant role when it comes to tax compliance (Nathan et al., 2023). If individuals were to find out that billionaires pay lower tax rates than the typical American, they may conclude that billionaires are not paying their fair share. In the *tax rate treatment*, we share the results from a report by ProPublica (2023) according to which billionaires paid an average total tax rate of 16%; in comparison, a typical American pays a rate of 21%. In addition to whether they pay low or high tax rates, the public may care about whether billionaires are playing by the rules or cheating the system. To test this hypothesis, we cross-randomized an additional piece of information. In the *tax loophole treatment*, in addition to information about tax rates, subjects receive information on two accounting strategies often used by billionaires to reduce their tax burden: receiving compensation in stocks and borrowing against them, and setting up shell companies in tax havens.

The first and main outcome of interest is the billionaire income tax. Inspired by an actual policy proposal, we ask respondents to imagine that the U.S. government is planning to introduce a new personal income tax rate specifically for individuals earning more than $10 million annually. Respondents are given the authority to set this federal top income tax rate and are asked to use a slider to select a rate between 0% and 100%. To study whether perceptions about billionaires affect demand for taxation of the companies they founded, we describe a hypothetical corporate tax rate for large businesses and ask subjects to select a rate between 0% and 100%. Individuals may want to tax billionaires for efficiency reasons or for fairness reasons. To probe the fairness channel more directly, we also include a question on whether, from a perspective of fairness, the taxes paid by the billionaire in question are too high or too low.

In addition to the tax preferences described above, we also elicit the respondents' support for existing policy proposals. We construct an index of policy support based on six different

metrics. We describe President Biden's proposal for a "Billionaire Minimum Income Tax" and we elicit support on a scale from strongly oppose to strongly support. Likewise, we elicit support for three other related policies. We also let individuals split a budget in donations to two organizations, one of which has the goal of requiring big corporations and the wealthy to pay their fair share in taxes. Lastly, we give respondents the opportunity to sign a petition organized by Oxfam to increase the taxes on the ultra-wealthy. To provide complementary evidence on the mechanisms at play, we construct a sentiment index based on five different metrics such as whether the billionaire deserves his wealth or whether he is trustworthy.

To measure the persistence of treatment effects, we invited all subjects to complete an obfuscated follow-up survey about a month later. This survey again measured their posterior beliefs, along with the same outcomes measured in the baseline survey. We conducted the survey with a sample of 9,013 Americans recruited via Prolific and following best practices. Approximately 82% of these subjects also completed the follow-up survey.

To determine whether the results were surprising or predictable, we conducted a forecast survey with a sample of 81 experts, primarily professors with research experience on related topics. Experts were shown each of the treatments (in random order) and asked to predict the effects of that treatment on the main outcome of interest: the preferred top income tax rate. There is a strong consensus among experts that all treatments would have a significant and positive effect on the preferred income tax rate, with the average predicted effect ranging from around 5 to 10 percentage points (pp), depending on the treatment.

To begin, we describe the perceptions and preferences of individuals in the control group. The average subject prefers a top income tax rate of 42.5%; for reference, this rate is not substantially higher than the current top income tax rate (37%). However, there is substantial heterogeneity in preferred tax rates, ranging from a 10th percentile of 16% to a 90th percentile of 75%. Although there is a lot of variation in the support for taxing billionaires, preferences are strongly skewed in favor of higher taxation. For example, from the perspective of fairness, subjects are much more likely to say that the taxes that billionaires pay are too low. A strong majority of subjects support policy proposals such as the Billionaire Minimum Income Tax and the California Extreme Wealth Tax. Most subjects are willing to sign a petition to increase taxes on the ultra-rich, and most subjects choose to allocate a significant fraction of the donation budget to the Americans for Tax Fairness.

Some of the information treatments contain some facts, such as the value of the billionaire's home. By comparing the prior beliefs with that factual information, we find that the general public has significant misperceptions about billionaires. For example, a small share of the sample can correctly guess how much the billionaire's residence is worth, how much the billionaire earns on an annual or hourly basis, and the average effective tax rate that

billionaires pay. Although there are both people who under-estimate and who over-estimate, misperceptions tend to be skewed. For example, individuals are more likely to under-estimate than to over-estimate the value of the billionaire's home. Moreover, we find that people incorporate the information provided in the treatments, because they update their posterior beliefs in the direction of the information.

Despite the significant effects on perceptions, most treatments do not increase preferences for taxation and sometimes even reduce them. We find that the luxury treatment increases the average perception about the price of the billionaire's home. Most importantly, this treatment has positive effects on the demand for taxation across the board. Relative to the control group, individuals who received the information prefer a top income tax rate that is 2.0 percentage points higher. The treatment increases the preferred corporate tax rate by 1.8 pp, so the effects spill over to the companies that the billionaire founded. The treatment increases the perception that billionaire taxes are unfairly low by 0.08 standard deviations. And there is a significant effect on the support for tax policies of 0.08 standard deviations. A deeper analysis suggests that the effects are not driven by learning the precise value of the billionaire's home but are a product of the narrative and the picture of the home. Our preferred interpretation is that the treatment evokes a strong emotional reaction, such as envy, anger, or a sense of injustice.

The luck treatment causes individuals to believe that honest and hard work played a less important role in the billionaire's wealth. This information also has a strong negative effect on the sentiment of the billionaire, such as the feeling of admiration. However, the effects of this information on demand for taxation are close to zero and statistically insignificant across the board. This result goes against the experts' prediction that this treatment would increase the demand for taxation substantially. This finding is also surprising, as there is a body of work from experimental studies showing that individuals want more redistribution when the outcomes are allocated by a flip of a coin. Our preferred interpretation is that, contrary to these experimental settings, in reality, economic success is seen as a product of a complex interplay of factors including skill, hard work, opportunity, and circumstances. This complexity makes it difficult to attribute wealth solely to luck and, therefore, harder to justify taxation. In fact, this interpretation is consistent with laboratory evidence indicating that people tend to be more accepting of inequalities caused by market forces or unequal circumstances, even if these forces are beyond the individual's control (Yusof ⓡ Sartor, 2024; Andre, 2024).

The earnings treatment causes a higher perception of the billionaire's income. This treatment has positive effects on the desired income and corporate tax rates (1.9 pp and 1.46 pp, respectively). However, these effects should be taken with a grain of salt for the following

reasons: they appear to have dissipated completely at follow-up; and we find null effects on the other two outcomes, specifically the perception that billionaires pay unfairly low taxes and the support for related policies. Like the luxury treatment, the earnings treatment is intended to highlight the extreme inequalities between billionaires and the average American. However, the luxury treatment has a more robust effect on preferences for taxation. Our favorite interpretation is that images can evoke emotional responses more effectively than statistics. Seeing a billionaire's extravagant home can evoke feelings of envy, resentment, or injustice, motivating people to support policies that address these disparities.

The tax rate treatment, on average, lowers the perception of the tax rates that billionaires face by about 5.5 pp. This treatment causes a higher perception that the taxes of billionaires are unfairly low by about 0.22 standard deviations. However, rather than increasing demand for redistribution, this treatment has negative effects: it causes a reduction in the desired income tax rate of about 3.9 pp, a reduction in the corporate tax rate of 3.9 pp, and a reduction in the policy support of 0.11 standard deviations. Our preferred interpretation is that the negative effects originate from a reference-point or status-quo effect. Specifically, individuals are reluctant to raise rates significantly above current levels. Therefore, when they learn that billionaires pay low taxes, it lowers the ceiling on the tax rates they feel they can demand.

In a sub-treatment, individuals receive additional information on the accounting strategies used by billionaires to reduce their tax burden. Although at baseline, most people already believed that billionaires abuse the tax system, this treatment increases that belief even further. This treatment also has a strong negative effect on the sentiment of billionaires, such as their perceived trustworthiness. However, the treatment does not have a significant effect on subjects' preferences regarding the top income or corporate tax rates. On the other hand, the treatment increases the policy support by 0.08 standard deviations. Our preferred interpretation is that individuals see no point in increasing tax rates, as people can find ways to evade them. However, they become more open to addressing the root of the problem through tax reform.

We present several robustness checks. First, we show that most of the effects persisted in the follow-up survey conducted a month later, although at about half their original size. We show that none of the results are driven by any single billionaire. And we show that the results are robust across alternative specifications. Moreover, we compare the experimental estimates with the expert forecasts. Quantitatively, we can confidently reject the null hypothesis that the experimental estimates are equal to the average forecasts. The experts' predictions also diverged from the results qualitatively.

This paper relates and contributes to several strands of literature. More generally, this

study is related to a literature on demand for redistribution and the role of misperceptions (e.g., Cruces et al., 2013; Kuziemko et al., 2015). More precisely, this paper relates to studies on the demand for taxation at the top of the income distribution. In particular, some studies explore the preferences for redistribution from business oligarchs (Di Tella et al., 2021), the top-1% (Hope et al., 2023), and CEOs (Kiatpongsan and Norton, 2014). We contribute to this literature by studying the demand for taxation of billionaires and the companies they started. These topics are significant not only due to the substantial potential for tax revenues but also because billionaires and their companies wield growing economic and political influence over the country's future. Moreover, we demonstrate that the taxation of billionaires merits further investigation. Our findings contradict some of the results in the broader literature on preferences for redistribution and are significantly misaligned with expert predictions.

The rest of the paper proceeds as follows. Section 2 describes the research design and implementation of the experiment. Section 3 presents the main results. The last section concludes.

2 Experimental Design and Implementation

2.1 Overview of the Research Design

The samples of the baseline and follow-up survey instruments are attached as Appendix C and Appendix D, respectively. Moreover, the structure of the surveys is summarized as a flow chart in Figure 1.

In the baseline survey, each participant is randomly assigned to one of five billionaires. The survey begins with a brief introduction to the billionaire chosen for the respondent, as well as one of the companies they are best known for: Elon Musk (founder of Tesla), Jeff Bezos (Amazon), Bill Gates (Microsoft), Mark Zuckerberg (Meta), and Michael Bloomberg (Bloomberg L.P.). The five billionaires used in our experiment were selected from the top ten richest individuals in the world according to Forbes World's Billionaires List of 2023.[6] These billionaires live very public lives and thus are likely to have a disproportionate effect in shaping perceptions about the ultra-wealthy. The billionaires are regularly talked about in the media, both for their business accomplishments and their personal lives. For example, Musk and Bezos were named Person of the Year by Time Magazine, and Bloomberg was mayor of New York and a presidential candidate. Consistent with these accounts, when asked in our survey, the vast majority of subjects reported being familiar with these billionaires.[7] Likewise,

[6]The choice of five billionaires instead of a larger group was arbitrary; the research design can accommodate a larger set.

[7]For more details, see Appendix B.1.

the companies associated with these five billionaires are some of the most recognizable and valuable companies in the world.

The subjects are randomized into different treatment arms. Within each treatment arm, we conduct an information-provision experiment: each subject is randomly assigned to receive a piece of information (treatment group) or to not receive any information (control group). Each information treatment provides a narrative that can contain not only numerical information (e.g., the hourly earnings of the billionaire) but also other elements, such as a picture of the billionaire's house or a screenshot of a newspaper headline. In all of the treatments, we explicitly provide a source for the information, typically a newspaper article, with a link to it. To assess whether an information treatment had any effect on perceptions, we ask a question related to the information contained in the message, both before the information-provision stage (prior belief) and after the information-provision stage (posterior belief). For example, the luxury message mentions, among other things, the estimated price of the billionaire's home. In the prior and posterior beliefs, we ask the subjects to guess the price of the billionaire's home. This will allow us to document some of the initial misperceptions, as well as whether they updated their perceptions in the expected direction. After the elicitation of posterior beliefs, the next block of questions, which is identical across all subjects, includes the outcome variables. Finally, at the very end of the survey, we collect some standard background information about the subject, such as demographics.

We took several steps to prevent respondents from making unintentional inferences due to being provided with information. For instance, respondents might assume they were chosen to receive information because their prior belief was inaccurate. To mitigate this concern, we made the randomization process explicit: we first informed respondents that some participants would be randomly selected to receive information and that they would find out on the next screen if they were chosen. Another concern is that when subjects are asked about their posterior beliefs, they might think the repeated question indicates their initial response was incorrect. To address this, we clearly informed respondents that all survey participants are asked the same question twice, regardless of their initial guesses or whether they received information.

2.2 Treatment Arms

We designed four different treatment arms, summarized below. Each arm was inspired by previous research on the demand for redistribution and the arguments made by academics, journalists, and the general public advocating for taxing the ultra-wealthy. Figure 2 provides a sample screenshot of each information treatment. Although panels (e) and (f) are common to all billionaires, panels (a) through (d) are specific to the billionaire selected for the

respondent. In Figure 2, we use Bill Gates as an example. The corresponding screenshots for each of the other four billionaires are reported in Figures B.1 to B.4.

Luxury Treatment Arm: We explore perceptions of the consumption habits of billionaires. Specifically, we provide a picture of one of the luxurious homes purchased by a billionaire, along with information about the home's price and features. Panel (a) of Figure 2 shows a sample screenshot for Bill Gates, noting that he owns a $130 million mansion in Washington, which boasts extensive amenities such as luxurious pools, a movie theater, and a reception area that can accommodate 200 guests. In this and other treatment arms, we used neutral language in the information treatments by providing factual information (e.g., a picture, a figure) and refraining from endorsing any policies explicitly.[8]

Luck Treatment Arm: According to a large body of work on social preferences (Cappelen et al., 2007, 2013; Durante et al., 2014; Almås et al., 2020), individuals are more inclined to reduce inequalities that arise from luck (e.g., a coin toss) rather than those that result from effort (e.g., performance in a task). In this arm, we randomized subjects with information illustrating that other factors besides the billionaire's honest and hard work played a significant role in how they made their fortune. Panel (b) of Figure 2 shows a sample screenshot for Bill Gates, mentioning a newspaper article arguing that Bill Gates stole the idea for Microsoft. For one of the billionaires, Michael Bloomberg, we were not able to find an article from a reputable source that would be a good fit for this treatment. For that reason, in this treatment arm, subjects are randomized to one of the other four billionaires.

Earnings Treatment Arm: We teach subjects about how much billionaires actually earn. When arguing for higher taxation for billionaires, supporters of these policies often mention the unthinkable levels of wealth amassed by billionaires (e.g., Zucman, 2024). According to a body of work on social preferences, some individuals are averse to inequality (Fehr ⓡ al., forthcoming). Additionally, research shows that individuals have significant misperceptions about the income distribution (Cruces et al., 2013; Kuziemko et al., 2015). In this treatment arm, we provide a side-by-side comparison between the earnings of billionaires and the earnings of the average American.[9] One potential concern we had with this treatment arm was that billionaires' earnings may be so astronomical that individuals are unable to grasp their true magnitude. For example, individuals rarely have to deal with billions of dollars in their day to day lives. To address this concern, subjects are randomized to one of two conditions: the main condition of hourly earnings (assigned with $\frac{2}{3}$ probability)

[8]Despite our efforts, the mere fact of studying the taxation of the ultra-wealthy may be perceived as partisan. At the end of the follow-up survey, we asked respondents whether they thought the survey was biased: 71.4% said the survey was unbiased, 25.8% said it had a left-wing bias, and 2.8% said it had a right-wing bias.

[9]In the question about prior beliefs, we informed subjects about the earnings of the typical American, so this information was available both in the treatment and control groups.

and the alternative condition of annual earnings ($\frac{1}{3}$ probability). The hourly sub-treatment is identical to the annual sub-treatment, except that it includes additional text converting the annual salaries into their hourly equivalents. For the sake of brevity, and to maximize statistical power, the main specification pools these two conditions – in any case, we do not find significant differences between them (results reported in Appendix B.2). Panel (c) and (d) of Figure 2 show screenshots of the hourly and annual treatments for Bill Gates. While the typical American earns $64,000 per year, Gates earns $3.05 billion per year. For the typical American, if you divide the annual income of $64,000 by the 8,760 ($= 365 \cdot 24$) hours in a year, it comes out to about $7 per hour. For Bill Gates, the corresponding estimate would be $348,015 per hour.

Tax Treatment Arm: There is evidence that, when it comes to tax compliance, individuals care about fairness (Nathan et al., 2023). According to some accounts, billionaires pay lower effective tax rates than the typical American (e.g., New York Times, 2019; Leiserson and Yagan, 2021; ProPublica, 2023; EU Tax Observatory, 2024; Zucman, 2024). If the public learns about this fact, they may conclude that billionaires are not paying their fair share. In the tax rate treatment, we provide a side-by-side comparison between the tax rate paid by the typical American and the tax rate paid by the 25 richest billionaires. A screenshot of the treatment is shown in panel (e) of Figure 2: according to ProPublica (2023), billionaires paid an average tax rate of 16%; in comparison, the average American pays a tax rate of 21%.[10] It is possible that individuals do not mind that billionaires face low tax rates if they play by the rules, but they may react differently if they perceive that billionaires are cheating their way into low taxes. For example, evidence from laboratory experiments shows that individuals are more willing to redistribute resources from those perceived to have cheated. (Di Tella et al., 2015; Bortolotti et al., 2023). To test this additional hypothesis, we cross-randomized an additional message. A screenshot of the treatment is shown in panel (f) of Figure 2. In addition to the tax rate information, some individuals receive an additional screen with information on two common accounting strategies used by billionaires to reduce their tax burden: receiving compensation in stocks and borrowing against them to avoid taxes until sold, and setting up smaller companies in tax havens to transfer profits and minimize tax liabilities.

In each of the treatment arms, we asked for prior and posterior beliefs related to the information provided in that arm. All of these questions are listed in Table 1 and summarized below. In the luxury treatment arm, we asked subjects to guess the value of the billionaire's

[10] In the question about prior beliefs, we informed subjects about the tax rate paid by the typical American, so this information was available both in the treatment and control groups.

home.[11] In the luck treatment arm, we elicited prior and posterior beliefs by asking the extent to which the respondent agrees with the statement that the billionaire "earned his wealth through honest and hard work." In the earnings treatment arm, we asked the respondent to guess the earnings of the billionaire (hourly or annual, depending on the sub-treatment assigned to the respondent). In the tax treatment arm, we included two questions for prior and posterior beliefs. The first question, designed with the tax rate information in mind, asked the subject to guess the effective tax rate paid by the billionaire to which they were assigned. The second question, designed with the information about the tax loophole in mind, asked subjects to determine to what extent they agree with the statement that "billionaires abuse loopholes in the tax code to avoid paying taxes."

2.3 Outcomes of Interest

At the end of the survey, we included a series of questions that make up the outcome variables and are listed in Table 2. The outcome variables can be categorized into three broad groups, as summarized below.

Taxation Attitudes: The primary outcome of interest is the top income tax rate for billionaires. This outcome is inspired by real-world policy proposals to establish a top income tax rate for billionaires, such as those proposed by President Biden and Congresswoman Ocasio-Cortez.[12] We ask respondents to imagine that the U.S. government is planning to introduce a new personal income tax rate specifically for individuals earning more than $10 million annually, and ask them to use a slider to select a marginal tax rate between 0% and 100%.[13] The next question is intended to examine whether perceptions about billionaires influence the demand for taxation of the companies they founded. Respondents are asked to imagine that the U.S. government is planning to introduce a corporate tax for companies that make profits exceeding $10 million – we explicitly mention that this would include large businesses such as the one owned by their assigned billionaire. Subjects can use a slider to select a corporate tax rate between 0% and 100%. Recognizing that individuals may want to tax billionaires for reasons of efficiency or fairness, we also include a question probing the

[11] Given that the amounts individuals could enter are so large, there is a concern for large outliers due to typos. For that reason, in this and other numerical questions, we included a numerical validation – for more details, see Appendix A.2.

[12] The government has other mechanisms to increase taxes on the ultra-wealthy, such as raising the top capital gains tax. Given that billionaires can avoid income taxes, raising the top income tax rate may not be the most effective policy (see e.g., The Economist, 2024). However, we considered this an appropriate outcome because, while not all subjects pay capital gains taxes, a strong majority are subject to income taxes and thus are probably familiar with it.

[13] To avoid influencing their choices, this and other sliders do not have a default position. The subject needs to click somewhere on the horizontal line for the slider bar to appear.

fairness aspect directly. This question asks whether, from a fairness perspective, the taxes paid by the billionaire are too high or too low on a 7-point scale.

Policy Support: We construct an index of policy support based on six different metrics and standardize it so that the control group has a mean of 0 and a standard deviation of 1.[14] We describe four real policy proposals and for each of them, we elicit the respondent's support on a 7-point scale from strongly oppose to strongly support. The four proposals are: (i) a proposal by President Biden that would require the wealthiest American households to pay a minimum of 20% of their total income in taxes; (ii) the introduction of an international corporate tax at an annual rate of 0.2% of the company's market value; (iii) a proposal to introduce a wealth tax for individuals with wealth over $50 million;[15] (iv) a newly introduced law that allocated $80 billion in funding to the IRS to strengthen tax enforcement.[16] To incentivize subjects to answer truthfully, we informed them that we would share the anonymous survey results with politicians and relevant organizations. Previous studies found this approach to increase subjects' perceptions of how consequential their responses are (e.g., Elías et al., 2019). Additionally, we elicited two revealed-preference measures of policy support. First, we allow individuals to allocate a $300 budget for donations to two organizations: World Relief, a Christian non-governmental organization that provides humanitarian aid and development assistance to vulnerable communities around the world; and Americans for Tax Fairness, which advocates for big corporations and the wealthy to pay their fair share in taxes. To give subjects incentives to be truthful, we tell them we will split the donations according to the choices of one randomly chosen respondent. Second, respondents are given the opportunity to sign a petition organized by Oxfam to increase taxes on the ultra-rich. We asked respondents whether they want to sign the petition and, if they say yes, we show them a screen with a link to sign it.[17]

Sentiment: Providing information about basic aspects such as how much billionaires pay in taxes or how truly wealthy they are may change the sentiment towards them. While sentiment is not an outcome of interest in itself, it can shed light on the causal mechanisms behind the effects on preferences for taxation. To achieve that goal, we construct a sentiment index based on five different metrics. Like in the policy index, we construct an standardized index with a mean of 0 and a standard deviation of 1. We ask respondents whether they believe the

[14] We standardize all the individual items of the index using the mean and standard deviation of the control group. To create the index, we take the average of the standardized items and then standardize this average again using the mean and standard deviation in the control group.

[15] While this tax was proposed for the state of California, we asked subjects whether they would support a similar policy in their own state of residence.

[16] We randomized the order in which subjects saw the proposals.

[17] In addition, we collect some data to validate the petition outcome. The results are presented in Appendix B.4.

billionaire deserves his wealth, whether they find the billionaire trustworthy, and if they admire and respect him. Additionally, we measure respondents' feelings towards the company founded by the billionaire. First, we use a subjective question to assess whether the individual has a positive sentiment towards the company. Second, we use a revealed-preference method. Subjects are shown a picture of a backpack with the logo of the company. Using a multiple price list method, we elicit the willingness to pay for the backpack. Intuitively, subjects with a negative image of the company should not want to walk around with the company's logo on their back and, therefore, should be willing to pay less for the backpack.

2.4 Background Characteristics

The final block of questions collected background information about the respondents, which can be used for descriptive analysis, as control variables, and for heterogeneity analysis. We included a standard set of questions regarding the gender, age, ethnicity, income, and education of the subjects. Additionally, we elicited the subjects' partisan identity. We also assessed subjects' general attitudes towards redistribution on an 11-point scale ranging from no redistribution to complete redistribution. Furthermore, we measured trust in the federal government on a 4-point scale from low trust to high trust.

2.5 Follow-up Survey

To assess the persistence of treatment effects, we invited all subjects to complete a follow-up survey approximately one month after the baseline. This follow-up survey measured the same posterior beliefs and outcome variables collected in the baseline survey, with just two minor exceptions.[18] In an effort to mitigate experimenter demand effects, we took several measures to obfuscate the connection between the baseline and follow-up surveys. First, we used different Prolific accounts for the surveys: subjects were invited to the baseline survey from a UC-Berkeley account and to the follow-up survey from a University of Zurich account. Second, we changed the layout of the follow-up survey, such as using different fonts and colors, and replaced the UC-Berkeley logo with the University of Zurich logo. Additionally, to further obfuscate the connection to the baseline survey, the follow-up survey began with a series of filler questions about the subjects' use of and attitudes towards generative artificial intelligence.

[18] In the follow-up survey, we did not ask subjects if they wanted to sign the petition again, as one cannot sign a petition twice (we did ask subjects if they had heard of the petition before, for a validation check). Second, to keep the follow-up survey short, we did not elicit the willingness to pay for the backpack.

2.6 Implementation of the Experiment

We conducted the pre-registered survey with a sample of 9,013 Americans recruited via Prolific.[19] We advertised the study on Prolific as "Scientific study" with an estimated duration of 10 minutes and a participation reward of $2. We collected responses in two waves, in January and March 2024.[20] About 82% of these participants also completed the follow-up survey, which had an estimated duration of 5 minutes and offered a participation reward of $1.50. The median time elapsed between the baseline and the follow-up survey was 24 days.[21] We limited our participant pool to U.S. residents, adhering to best practices for recruiting and ensuring high-quality responses. In both the baseline and follow-up survey, we included Captcha verification. Furthermore, we included different attention checks in both surveys, which 99% of subjects passed – subjects who did not pass the attention checks were excluded from the analysis. The median completion times were 9 minutes for the baseline survey and 6 minutes for the follow-up survey. At the end of the baseline survey, we asked respondents about the difficulty of the survey, and 89% indicated that our survey was "easy to understand."

2.7 Descriptive Statistics and Balance Checks

Table 3 presents descriptive statistics. Column (1) corresponds to the full sample. Approximately 49% of the subjects are female, 47% are 35 years old or younger, 65% have an annual household income above $50,000, 69% have a college degree, 63% self-identify as White, 15% as Black, 10% as Asian, and 8% as Hispanic. Our sample is not perfectly representative of the U.S. general population, but it is not very dissimilar either – for more details, see Appendix B.3. The most noticeable difference is that, as is common in online samples, the subject pool skews toward younger, more educated, and left-leaning individuals.[22]

Columns (2)–(13) of Table 3 present a breakdown of the sample by treatment status. For example, columns (2)–(4) correspond to the luxury treatment arm. Columns (2) and (3) show the average characteristics in the control and treatment groups, respectively. In turn, column (4) shows the p-value corresponding to the null hypothesis that the average characteristics are the same across the treatment and control groups. Observable characteristics are balanced

[19] The experiment was pre-registered at the AEA RCT Registry (AEARCTR-0011845).

[20] The first wave was open from January 27 to 31 of 2024, with a total of 6,016 responses. The second wave was open from March 28 to 30 of 2024, with 2,997 responses.

[21] For each wave, we published the follow-up survey three weeks after completing the baseline survey, keeping it online for 35 days in wave 1 and 21 days in wave 2, respectively. In both waves, 90% of the follow-up data was collected within the first week.

[22] For example, 50% of respondents self-report as Democrats, 32% as Independents, and the remaining 18% as Republicans.

between the treatment and control groups, indicating a successful random assignment.[23]

The final row of Table 3 shows the participation rates in the follow-up survey. On average, 82% of the subjects who participated in the baseline survey also participated in the follow-up survey. Follow-up participation rates are similar across treatments, indicating that we do not observe selective attrition.[24] Additionally, we observe virtually no attrition within the baseline survey.[25]

2.8 Expert Forecast Survey

To assess whether the experimental results were surprising, we conducted a forecast survey to elicit predictions from a sample of 81 experts who had published research on related topics.

A sample of the full survey instrument is attached as Appendix E. Following the best practices (Dreber et al., 2015; DellaVigna et al., 2020), we start by describing the context of the experiment and the main outcome of interest, which is the preferred top income tax rate. Next, we introduce each of the treatments in a random order. We display a screenshot of the information treatment and ask the subjects to predict its effect.[26] In the tax treatment arm, we elicit the effects of the tax rate information treatment as well as the additional effect of the information on tax loopholes. The survey included a few additional questions, such as how confident the participant was in his or her own predictions.

We invited a sample of 512 professors with published research on related topics by email. The final sample includes 81 experts, comprised of Professors (76%), Postdocs (15%), researchers (7%) and PhD students (2%).[27] The experts are from the fields of Economics (65%), Political Science (17%), Psychology (7%) and Sociology (5%). Approximately 89% of the experts report having done research on preferences for redistribution, and 64% have done research on taxation.

There was a strong consensus among experts that all treatments would positively impact the preferred income tax rate. This is perhaps unsurprising, given that we designed treat-

[23]The differences between treatment and control groups are always small in magnitude. Four of the differences are statistically significant at the 10% level. However, those differences are probably spurious: given that 60 tests are reported in this table, we expect that about 6 of them should be statistically significant at the 10% level just by chance.

[24]However, there is one exception: in the tax treatment arm, the response rate is lower for individuals that saw the tax loophole (78.1%) than for those who only saw the tax rate (83.8%) and those in the control group (82.2%), with the difference being statistically statistically significant (p-value=0.008).

[25]98.5% of the subjects who started the survey completed it. And conditional on reaching the information-provision stage, 99% of participants completed the survey.

[26]For the wealth arm, we elicited separately the effects for the two sub-treatments (hourly and annual) and take a weighted average of the two predictions using the same weights from the randomization: $\frac{2}{3}$ for the hourly prediction and $\frac{1}{3}$ for the annual prediction.

[27]We excluded one respondent who explicitly asked to be excluded because he or she had difficulties understanding the survey.

ments with the intention of increasing support for taxation, drawing inspiration from prior research on the demand for redistribution, and considering arguments made by academics, journalists, and the general public. Experts predicted not only positive effects, but also large effects, ranging from 5 pp to 10 pp, depending on the specific treatment.[28]

3 Results

3.1 Baseline Attitudes

We start by describing the baseline beliefs, preferences, and attitudes in the control group.

Figure 3 presents histograms with a selection of key outcomes of interest – the rest of the outcomes are presented in Figures B.6 and B.7. This evidence shows that while there is considerable variation in support for taxing billionaires, preferences are skewed in favor of higher taxation. For example, panel (a) of Figure 3 shows that the average participant prefers a top income tax rate of 42.5%; for reference, this rate is not substantially higher than the current top income tax rate of 37%. Moreover, there is substantial heterogeneity in the preferred tax rates, ranging from a 10th percentile of 16% to a 90th percentile of 75%. In turn, panel (b) of Figure 3 shows the distribution of the preferred top corporate tax rates. The results mimic those of the income tax rate: on average, individuals prefer a 39.8% corporate rate, but there is large variation between individuals. The average preferred rate of 39.8% is substantially higher than the current flat rate of 21%, and even higher than the maximum rate of 35% that was effective before the Tax Cuts and Jobs Act of 2017. Support for taxation is even stronger when participants are asked explicitly about fairness: they are much more likely to say that the taxes billionaires pay are too low than to say that they are too high, as shown in panel (c) of Figure 3.

Furthermore, a majority of subjects support the policy proposals aimed at increasing the taxation of the ultra-wealthy. For example, panel (d) of Figure 3 shows that 78.5% support the billionaire minimum income tax proposal. The other three policy proposals received similar support.[29] The support for policy change is also reflected in the revealed-preferences measures. For example, panel (e) of Figure 3 shows that when asked to divide the $300 donation between two charities, a strong majority (84.7%) allocated at least some amount to Americans for Tax Fairness. Furthermore, most subjects (59.7%) are willing to sign a petition to increase taxes on the ultra-rich.

[28] While respondents had expertise on the subject matter, they were not highly confident about their own forecasts. On a scale from 1 (not confident at all) to 5 (extremely confident), the mean confidence was 2.5 – for more details, see Figure B.10.

[29] For more details, see Figure B.6.

In terms of sentiment towards the billionaires and the companies they founded, there is considerable variation across subjects, but the sentiment is slightly skewed in the positive direction. For example, panel (f) of Figure 3 shows the responses to the question on whether billionaires deserve their wealth. On a scale from "not deserving" (0) to "deserving" (6), the average response is 3.3, which is slightly closer to the positive end of the spectrum. The respect for billionaires and the sentiment towards their companies are also skewed positively; however, billionaires score consistently low in measures of trustworthiness.[30]

We also find that the subjects had significant misperceptions about the billionaires. Three of the information treatments include some numerical facts for which we elicited prior beliefs. By comparing these prior beliefs to the facts provided in the messages, we find significant misperceptions.[31] In the luxury treatment arm, we asked the subject to guess the value of one of the billionaire's homes. Only a small share (3.3%) of the participants could correctly guess the value of the home (i.e., within ± 5% of the truth), and most subjects were off by a wide margin.[32] Furthermore, subjects were more likely to under-estimate than to over-estimate this value.[33] Likewise, only a small minority of individuals (0.8%) could correctly guess the earnings of the billionaire (i.e., within ± 5% of the truth), again with more individuals under-estimating than over-estimating.[34] Lastly, we asked about the effective tax rate faced by the billionaire. The true tax rates that each billionaire pays are not publicly available, so we cannot compare the guesses to the true rate. However, we can compare the guesses to the average tax rate for the top 25 richest billionaires estimated by ProPublica (2023).[35] Only a small share (1.2%) of guesses came close (within ± 2.5 pp) to ProPublica's estimate. Moreover, subjects are more likely to guess above than below ProPublica's estimate.

3.2 Luxury Treatment Arm

We begin by documenting the effects of the luxury treatment on beliefs. Figure 4 shows a histogram of the distribution of posterior beliefs. Each panel corresponds to a different

[30] For more details, see Figure B.7.

[31] In all the results presented in this paper, we mitigate sensitivity to outliers by winsorizing prior and posterior beliefs about the value of the billionaire's home, hourly and annual earnings, and the total tax rate. The threshold used for winsorization is based on the 95th percentile of absolute prior misperceptions.

[32] To make it directly comparable to the rest of the statistics reported in this subsection, this and the next statistics correspond to individuals in the control groups. However, since this is a pre-treatment outcome, the results are almost identical for individuals in the treatment group.

[33] For more details, the full distributions of prior beliefs are reported in Figure B.8.

[34] The result on under-estimation, however, is clear when the earnings were elicited hourly but not clear when they were elicited annually.

[35] This comparison has to be taken with a grain of salt, because the estimate is subject to error. Moreover, there may be significant differences between how much each of the billionaires pay in tax rate and the average for the top-25.

treatment arm. In each panel, the red bins represent individuals in the treatment group (who received the information), while the gray bins correspond to individuals in the control group (who received no information). In panel (a), for the luxury treatment arm, the x-axis shows the difference between the individual's guess for the value of the billionaire's home and the true value (i.e., according to the treatment). For example, a value of \$0 means that the guess is accurate, while a value of -\$1 million means that the individual under-estimated the home value by \$1 million. In the control group, only a small minority of subjects have accurate posterior beliefs. In contrast, in the treatment group, a large majority of subjects have accurate posterior beliefs. The fact that subjects in the treatment group have more accurate beliefs suggests that subjects paid attention to the information and found it reliable.[36]

Appendix B.6 provides a more detailed analysis of the effects of information. We find that individuals updated their posterior beliefs in the direction of the information provided. Individuals who initially under-estimated the value tend to update their posterior beliefs upward, while those who initially over-estimated the value tend to update their posterior beliefs downward. Despite some participants updating upward and others downward, on average, the luxury treatment leads individuals to perceive that billionaires live in more expensive homes. Panel (a) of Figure 4 shows that the treatment caused an increase of \$4.01 million (p-value=0.189) in the average belief about the billionaire's home value. For numeric elicitations like this one, a common concern is that outliers, often due to typos or misunderstanding of the question, may disproportionately influence the difference in means. For that reason, Figure 4 also reports the difference in medians. Panel (a) shows that the treatment caused an increase in the median belief of \$9.00 million (p-value<0.001).

Next, we measure the average effects of the luxury treatment on the demand for taxation. To estimate these effects, we used a simple linear regression model. Let Y_i^{post} be the outcome of interest. For example, the main outcome is the respondent's preferred top income tax rate. Let T_i be an indicator variable that takes the value 1 if the respondent was randomly assigned to receive information.[37] The regression of interest is as follows:

$$Y_i^{post} = \nu_0 + \nu_T \cdot T_i + X_i^{pre}\nu_X + \varepsilon_i \tag{1}$$

[36] As a falsification test, we also compare the distribution of prior beliefs between the treatment and control groups. Since prior beliefs were elicited before the information-provision stage, the treatment should not have any effect on them. This is confirmed by our findings, as discussed in Appendix B.5.

[37] This specification applies to the treatment arms with a single treatment group. In the tax treatment arm, we include two treatment variables: one dummy indicating whether the subject received the information on tax rates, and another dummy indicating whether the subject received the additional information on tax loopholes.

ν_T is the main coefficient of interest, corresponding to the Average Treatment Effect (ATE) of the information. X_i^{pre} corresponds to the vector of control variables from the module on background characteristics: gender, age, income, education, ethnicity, a dummy for Democrat, a dummy for Republican, the general attitude towards income redistribution, and the trust in the federal government.[38] Since the treatment was randomized, the control variables are not needed for causal identification. However, they can help reduce the variance of the error term and thus improve statistical precision (McKenzie, 2012).[39] In any case, as discussed below, the results are similar if we include a more limited set of controls or if we do not include any controls.

The estimated ATEs are reported in Table 4. Each row corresponds to a different treatment, and each column corresponds to a different outcome variable: column (1) corresponds to the main outcome, the preferred top income tax rate; column (2) corresponds to the preferred corporate tax rate; column (3) corresponds to perceived tax fairness; column (4) corresponds to the policy index; and column (5) corresponds to the sentiment index. Given the large number of combinations between treatments and outcomes, it is important to account for multiple hypothesis testing. For each p-value reported in Table 4, we also provide the corresponding sharpened q-value in brackets (Benjamini et al., 2006; Anderson, 2008). The q-value represents the minimum false discovery rate (i.e., the expected proportion of rejected null hypotheses that are actually true) at which the null hypothesis would be rejected for that specific test, considering all tests reported in the same table.

The top row of Table 4 reports the results for the luxury treatment. This treatment has positive effects on the demand for taxation and across the different outcomes. Column (1) shows that, relative to the control group, individuals exposed to the luxury treatment prefer a top income tax rate that is 2.0 pp higher (p-value=0.036). Column (2) shows that the treatment also raises the preferred corporate tax rate by 1.8 pp (p-value=0.053), indicating that the increased demand for taxation extends to companies founded by the billionaire. Column (3) shows that treatment increases the perception that billionaire taxes are unfairly low, by 0.12 points (p-value=0.048), equivalent to 0.082 standard deviations. Furthermore, column (4) shows a significant effect on policy support of 0.075 standard deviations (p-value=0.034).[40] All of these effects are statistically significant even after accounting for

[38] We control for partisan identity following other studies (e.g., Alesina et al., 2023).

[39] Due to potential survey fatigue, we included the background questions at the end of the survey. In theory, the treatment could affect the responses to these questions because they were elicited after the information-provision stage. In practice, this is not a concern: Table 3 shows that there were no treatment effects on any of the background characteristics.

[40] Column (5) shows that the effects on sentiment are close to zero (-0.022 standard deviations), precisely estimated and statistically insignificant. That is, when an individual is provided with information about a billionaire's lavish home, it does not change how they feel about the billionaire, such as whether they respect him.

multiple hypothesis testing (q-values of 0.083, 0.095, 0.094 and 0.083, respectively).

There are a few additional results reported in the Appendix. While Table 4 aggregates the policy and sentiment questions into two indices, Table B.3 presents the disaggregated results for each individual outcome. For example, Table 4 shows that the luxury treatment increases the policy index by 0.075 standard deviations. In turn, Table B.3 shows that the luxury treatment had a consistently positive effect on all items that comprise the index, with the most significant effects on the support for a wealth tax (p-value=0.086) and the donation to Americans for Tax Fairness (p-value=0.010).

Some individuals reacted to the luxury treatment by increasing their beliefs about the value of the billionaire's home, while other individuals updated their beliefs downward. The treatment did not only include the value of the home, but also an image, a description, and a narrative that connected all the pieces of information. Thus, the effect of this treatment may be driven by the belief about the home's value or by the other pieces of information. If the effects of the treatment operated solely through the belief about the home value, we would expect asymmetric effects: individuals who updated their beliefs upwards should react in the opposite direction than those who updated their beliefs downward. Table B.5 replicates Table 4, except that it breaks down the sample by subjects who started under-estimating (and thus will update their beliefs upwards) versus those who over-estimated (and thus will update beliefs downwards). There are no significant differences in treatment effects between these two groups. This evidence suggests that the effect of the treatment was not primarily driven by quantitative information about the value of the home. Instead, our preferred interpretation is that the treatment effects are due to the qualitative information, such as the impressive picture of the billionaire's residence and the description of the luxurious amenities. In particular, the image may evoke a strong emotional response, such as envy, anger, or a sense of injustice, which may drive the increased demand for taxation.[41] Our evidence is consistent with other survey experiments showing that, when it comes to policy preferences, individuals can be more responsive to qualitative than to quantitative information (e.g., Rasooly, 2024); and qualitative anecdotes and narratives can influence redistributive preferences more strongly than factual information (see e.g., Alesina et al., 2023). The effects of the luxury treatment are also consistent with evidence that people are more willing to redistribute from the rich when the rich are described as greedy rather than prosocial (Hansen, 2023).

[41] Additionally, individuals may not react to the quantitative information because the home values are so far above what they are accustomed to that they cannot grasp the difference between a $10 million home and a $100 million home.

3.3 Luck Treatment Arm

The luck treatment reduces the belief that honest and hard work played a significant role in the billionaire's wealth. Panel (b) of Figure 4 shows the distribution of posterior beliefs that honest and hard work played a significant role in the success of the billionaire, on a scale from 0 to 6. The luck treatment shifts the distribution to the left. More precisely, the information causes a reduction in the average belief of 0.9 points (p-value<0.001), or equivalent to 0.46 standard deviations. This strong effect suggests that subjects paid attention to the information and found it reliable. If the luck treatment persuaded individuals that the billionaire's success goes beyond his honest and hard work, it may change the sentiment towards the billionaire. We can test this hypothesis by examining the effects on the sentiment index. The second row of Table 4 reports the average treatment effects of the luck treatment. Column (5) shows that this treatment reduced the sentiment towards the billionaire by 0.135 standard deviations (p-value<0.001). This negative effect was prevalent across all items in the sentiment index, but was most significant for feelings of deservingness of wealth, respect, and sentiment towards the company (for details, see Table B.3).

Despite the strong negative effect on the perception that the billionaire achieved his success through honest and hard work, the luck treatment did not have any significant effects on the demand for taxation. The coefficients are mostly close to zero and always statistically insignificant: column (1) shows an effect of -0.144 pp (p-value=0.885) on the preferred income tax rate; column (2) shows an effect of 0.730 pp (p-value=0.450) on the preferred corporate tax rate; column (3) shows an effect on the belief that taxes are unfairly low of 0.089 points (p-value=0.123), equivalent to 0.060 standard deviations; and column (4) shows an effect on policy support of 0.016 standard deviations (p-value=0.649).[42] Although for specific outcomes we sometimes cannot rule out small or modest effects, taken together, the coefficients suggest that the treatment was largely ineffective in increasing demand for taxation.

This result contradicts experts' predictions that the luck treatment would substantially increase the demand for taxation. This finding also goes against evidence from laboratory studies showing that individuals are more willing to redistribute resources when outcomes are determined by chance, such as the flip of a coin. Indeed, that research served as motivation for this treatment arm and is probably what motivated experts to predict positive effects for this treatment. Our preferred interpretation is that, unlike laboratory settings, in real-world settings economic success is perceived as the result of a complex interplay of factors, including luck, skill, hard work, and opportunity. As a result, while the luck treatment persuades individuals that honest and hard work is not the sole driver of wealth, it may not

[42] We do not find any significant differences between individuals with different prior beliefs about the role of honest and hard work – results reported in Table B.5.

translate into a greater demand for taxation. In fact, this interpretation is consistent with some recent laboratory evidence. For example, Yusof ⓡ Sartor (2024) shows that people tend to accept market-driven inequalities even if they are outside the individual's control. And Andre (2024) shows that individuals hold others responsible for their choices even if these choices have been shaped by unequal circumstances.

3.4 Earnings Treatment Arm

The earnings treatment has a significant effect on the perception of the billionaire's earnings. Panels (c) and (d) of Figure 4 show the distribution of posterior beliefs about the billionaire's hourly and annual earnings, respectively. In the control group, only a small group of subjects have accurate guesses of the billionaire's earnings. In comparison, in the treatment group, a strong majority of subjects provide accurate guesses. This strong effect of the treatment suggests that subjects paid attention to the information and found it trustworthy. Moreover, panel (c) of Figure 4 shows that individuals in the control group systematically under-estimate earnings in the main hourly condition. As a result, the treatment has a strong positive effect on both the mean and the median posterior belief, of about \$253K (p-value<0.001) and \$401K (p-value<0.001) respectively.[43] In the annual condition, shown in panel (d), there is a significant fraction of very large outliers that complicates the interpretation.[44]

When individuals are informed about the true wealth of billionaires, the evidence shows positive effects, although weaker, on the demand for taxation. The third row of Table 4 reports the average treatment effects of the earnings treatment. On the one hand, columns (1) and (2) show some significant positive effects on the desired income and corporate tax rates, of 1.9 pp and 1.46 pp (p-values of 0.018 and 0.064, and corresponding q-values of 0.065 and 0.106). On the other hand, we do not find statistically significant effects on the other outcomes related to demand for taxation: column (3) shows an effect on perceived tax unfairness of 0.054 points (p-value=0.267), equivalent to 0.037 standard deviations; and

[43] Given that individuals are learning that the billionaires are earning more than they thought, one might expect positive effects on the billionaire's sentiment. Column (5) of Table 4 shows that there is a small positive effect of 0.045 standard deviations, but it's statistically insignificant (p-value=0.181).

[44] More precisely, in the control group there is a significant fraction of around 20% of individuals who vastly over-estimate the annual earnings, by over \$20 billion. Our best guess is that those individuals thought that the question was about the net worth of the billionaire instead of his annual earnings. Therefore, our interpretation is that these individuals did not really learn that billionaires earn less but rather learned that the question was asking about annual earnings instead of net worth. Indeed, as described in the pre-registration, one reason we assigned higher probability to the hourly condition is that participants may struggle with amounts in billions of dollars.

column (4) shows an effect on policy support of 0.015 standard deviations (p-value=0.610).[45]

Similar to the luxury treatment, the earnings treatment aims to highlight the extreme inequalities between billionaires and the average American. However, the luxury treatment has a more robust impact on preferences for taxation, significantly affecting the feeling of unfairness and the support for policy in addition to the effects on the preferred tax rates. Our preferred interpretation of this evidence is that visual images can evoke emotional responses more effectively than statistics. Seeing a billionaire's extravagant home can trigger feelings of envy, resentment, or injustice, which in turn motivate people to support policies that address these disparities. In contrast, merely presenting statistics about wealth may not elicit the same strong emotional reactions, leading to weaker effects.

3.5 Tax Treatment Arm

The information about the effective tax rates that billionaires pay has strong effects on beliefs and in the expected direction. Panel (e) of Figure 4 shows the distribution of posterior beliefs about the average tax rate paid by the billionaire. This figure breaks down the treatment group by sub-treatments: individuals who received information only on the average tax rate are denoted in red bins, and those who received additional information on tax loopholes are denoted in green bins. In the control group, a negligible share of respondents guessed that their billionaire paid a tax rate close to ProPublica's estimate. In the treatment groups, a near-majority of subjects guessed that their billionaire paid a tax rate close to ProPublica's estimate. The fact that the respondents updated their beliefs so strongly suggests that they were paying attention to the information and trusted it. Furthermore, the provision of information about the tax rate shifted beliefs to the left: relative to the control group, receiving ProPublica's estimate lowered the perceived tax rate by about 5.5 pp (p-value<0.001). In turn, receiving additional information about tax loopholes did not have any *additional* effect on the perceived tax rate (difference p-value = 0.322).

The last two rows of Table 4 report the estimates for the average treatment effects in the tax rate treatment arm. There are two coefficients. The Tax Rate coefficient corresponds to the effects of the tax rate information. The Tax Loophole coefficient corresponds to the effect of showing additional information on tax loopholes. The tax rate treatment causes a stronger perception that billionaires' taxes are unfairly low: column (3) shows a positive effect of 0.327 points (p-value<0.001), or about 0.221 standard deviations. Given that the tax rate treatment persuaded subjects that billionaires pay lower tax rates and that they

[45]Table B.5 explores the heterogeneity by prior beliefs. The results are mixed: we find some suggestive evidence that the effects on preferred tax rates are stronger for individuals with high prior beliefs, but the opposite is true for the effects on policy index.

pay unfairly low taxes, one may expect this treatment to raise the demand for taxation. In contrast, we find a robust negative effect. Column (1) shows that the tax rate information has a negative effect on the desired income tax rate of about 3.9 pp (p-value<0.001); column (2) shows a negative effect on the corporate tax rate of 3.9 pp (p-value<0.001); and column (4) shows a negative effect on policy support by 0.112 standard deviations (p-value=0.001). All of these negative effects are strongly significant even after accounting for multiple hypothesis testing (q-values of <0.001, <0.001 and 0.006, respectively).

Our preferred interpretation is that these negative effects are due to a reference-point or status-quo effect. When individuals learn that billionaires are paying low rates, they may feel more uncomfortable about increasing those rates relative to the status quo. For example, consider an individual who thinks that billionaires pay a tax rate of 30% but believes that they should pay a tax rate of 40% instead – that is, the individual demands a 10 pp increase in the tax rate. In response to the treatment, this individual now believes that billionaires pay a tax rate of 20%. For simplicity, let us assume that this individual still believes that, in an ideal world, billionaires should pay a tax rate of 40%. Since they learn that billionaires pay half of that, the individual should be more likely to say that billionaires pay unfairly low taxes. However, what tax rate would the individual pick? Asking billionaires to pay a 40% rate would now amount to increasing the tax rate by 20 pp relative to the status quo, or effectively doubling the tax rate. If, due to status-quo bias, the individual feels comfortable asking for up to a 10 pp rate increase, then the individual will now demand a tax rate of 30%. If the individual does not care about the status quo, the individual will still demand a tax rate of 40%. Most likely, the chosen rate would fall somewhere between 30% and 40%, depending on the strength of the status-quo bias.

In fact, we find some suggestive evidence consistent with this interpretation. According to this mechanism, the negative effects should be driven by individuals who started out overestimating the billionaire's tax rate. Indeed, Table B.5 provides evidence that the effects were stronger in this group.[46] Moreover, our interpretation is consistent with evidence from Charite et al. (2022). In a laboratory experiment where individuals can redistribute resources between third parties, they provide evidence of reference-point effects around the status-quo allocations.

Next, we discuss the effects of the additional information about the tax loopholes. Although most people already believed that billionaires abuse the tax system, this information reinforces that belief even further. More precisely, panel (f) of Figure 4 shows the distribu-

[46]However, one exception is that, as shown in column (4) of Table B.5, the negative effects on policy support are stronger for the individuals who started out under-estimating. A natural interpretation is that individuals who learn that billionaires pay more taxes than they thought see less need for policies to increase taxation.

tion of posterior beliefs that billionaires abuse the tax code to avoid taxes. The first thing to notice is that the belief is strongly right-skewed even in the control group. Even among individuals who did not receive any information on the tax rate or tax loophole, a majority (57.6%) already strongly agreed (i.e., chose a 6 on a 0–6 scale) with the statement that billionaires abuse the tax code. Information about tax rates on its own does not have a significant impact on this belief (p-value=0.471). However, the additional information about tax loopholes increases this belief by 0.20 points (p-value=0.011). The modest size of this effect may be due to some inattention: compared to the others, this message is wordier and more technical, so some individuals may not have paid close enough attention or fully understood it. However, the modest size of the effect is probably due to the very high baseline level of belief: i.e., a majority of individuals already chose the highest score in their prior beliefs, so they maxed out on the scale, leaving no room to further increase their beliefs.[47]

The last row of Table 4 shows the average treatment effects of the tax loophole information on the different outcomes. On the one hand, the tax loophole treatment does not appear to significantly increase the preferred tax rates: column (1) shows an effect of 0.456 (p-value=0.563) on the preferred income tax rate; and column (2) shows an effect of 0.340 (p-value=0.662) on the preferred corporate tax rate. Column (3) shows no significant effect on the belief that billionaires pay unfairly low taxes either (coefficient of 0.038, p-value=0.482). On the other hand, we observe a significant effect on policy support: column (4) shows an effect of 0.079 standard deviations (p-value=0.022, q-value=0.068).[48] Our preferred interpretation is that, upon finding out about tax loopholes, individuals may perceive little value in raising tax rates, since billionaires can simply avoid them. Instead, they may be more inclined to address the root of the problem through tax reform. Indeed, Table B.3 shows that the positive effects on the policy index are driven primarily by support for two specific policies aimed at mitigating the impact of existing loopholes: the minimum income tax and a new international tax for large corporations.

3.6 Comparison to Expert Forecasts

To assess the degree to which the experimental findings are surprising, Figure 5 provides a comparison between the estimated effects on the preferred income tax rate and the corre-

[47] Finding out that billionaires abuse the tax code may cause negative sentiment towards them. According to the results from column (5) of Table 4, the tax loophole information had a negative but statistically insignificant effect on the sentiment index. A closer inspection reveals a stronger picture: Table B.3 shows that the treatment had strong negative effects on perceptions of trustworthiness and the deservingness of their wealth.

[48] As reported in Table B.5, we do not find any significant heterogeneity by prior beliefs.

sponding predictions of experts.[49] In general, the average expert prediction was far from the experimental estimates.[50] For instance, while experts predicted positive effects between 5 pp and 10 pp, we find effects that range between -4 pp and 2 pp. All pairwise differences between expert predictions and corresponding experimental estimates are highly statistically significant, even when the forecasts were directionally right. For example, experts predicted an effect of the luxury treatment of 6.790 pp while we found an effect of 2.018 pp (difference p-value<0.001). Since this is the first study on the demand for taxation of billionaires, it may be unreasonable to expect experts to have a good sense of the magnitude of the effects. However, the predictions are not very accurate even under alternative approaches. In terms of the qualitative direction of the findings, experts predicted that all treatments would have positive effects on the preferred income tax rate.[51] By contrast, while two treatments (luxury and earnings) had positive effects, two other treatments had null effects (luck and tax loopholes) and another treatment had a strong negative effect (tax rate).

3.7 Additional Results and Robustness Checks

In Appendix B.7, we show that the results are consistent across alternative specifications. More precisely, we show that the estimates are similar when we use a more basic set of controls or when we do not include any control variables at all. Additionally, we show that the results are not affected by dropping individuals who are outliers in terms of their prior misperceptions, nor by excluding the minority of subjects who found the survey difficult. In the baseline specification, as specified in the pre-registration, we pool the data across the five billionaires. In Appendix B.8, we provide evidence that the results do not seem to be driven by any single billionaire, insofar the estimates are consistent when we exclude one billionaire at a time.

Other studies report that the reaction to information related to preferences for redistribution can sometimes be different for individuals of different political parties (e.g., Karadja et al., 2017; Alesina et al., 2018; Fehr et al., 2022). With that in mind, we report the heterogeneity by political affiliation in Appendix B.9. We do not find statistically significant differences by political party, although we do not have sufficient statistical power to rule out modest differences. If anything, there is weakly suggestive evidence that Democrats may

[49] As with the experimental estimates, we pool the experts' predictions for the hourly and annual earnings treatments and take a weighted average. Experts predicted an effect for the hourly earnings treatment (11.1 pp) that is somewhat larger than the predicted effect for the annual earnings treatment (8.4 pp).

[50] For each prediction, there is substantial heterogeneity across experts. For more details, Figure B.10 shows the histogram of the predicted treatment effects. This figure shows that, for each prediction, only a minority of experts came close to the experimental estimates.

[51] Figure B.11 presents additional results from the other questions of the expert forecast survey.

have experienced a weaker reaction to the luxury treatment arm and a stronger reaction to the earnings treatment arm.

As with any survey experiment, a potential concern is experimenter demand effects; that is, subjects may alter their survey responses to please the experimenter, even if their underlying views remain unchanged. We selected treatments that could plausibly increase the demand for taxation. In fact, experts expected that all the treatments would have positive effects on the preferred top income tax rate. Thus, if experimenter demand was strong, we would expect all treatments to increase support for redistribution. Contrary to this expectation, the data show varied effects: while the luxury treatment increased demand for taxation across the board, the earnings treatment had weaker effects, the luck treatment had no effects, and the tax rate treatment had strong negative effects. To attribute our findings solely to experimenter-demand effects, one would have to assume that some treatments (e.g., luxury) induced experimenter demand but others did not, which seems unlikely.

One common way to address concerns about experimenter demand is by looking at behavior instead of survey responses. With this in mind, we included two behavioral measures of support for taxation, which are part of the policy support index: (i) the decision to split a real donation budget between World Relief and the Americans for Tax Fairness; (ii) the decision to sign the Oxfam petition. In fact, as shown in Table B.3, we find some significant effects on behavioral outcomes. More precisely, the luxury treatment increases donations to the Americans for Tax Fairness by \$11 (p-value=0.010), and the tax rate treatment reduces the share of respondents signing the petition by 4.9 percentage points (p-value=0.021).

Another common way to assess whether the effects are due to experimenter demand is to look at the persistence of the effects. One caveat though is that as time passes, one naturally expects the effects to dissipate, as individuals forget about the information they received in the past and may gather new data. For example, Cavallo et al. (2017) conducted an experiment that provided information on inflation to households. When they re-interviewed these households four months later, they found that 45.6% of the belief updates during the baseline survey persisted in the follow-up period. In the case of inflation, it may be expected that individuals retain valuable information more readily because it is useful on a daily basis. However, information about billionaires is not particularly actionable outside of specific contexts, such as voting in a presidential election, and for that reason, individuals may forget it more easily.

Using the responses to the follow-up survey, we document that the effects of the information persisted, at least partially, a month later. Figure 6 replicates Figure 4 but uses the posterior beliefs in the follow-up survey instead of the baseline survey. The impact on the posterior beliefs remained, at least to some extent, a month later. More precisely, individuals

were unlikely to remember a month later the precise numerical information that was given to them during the baseline survey.[52] However, the treatments had a persistent shifting effect on the distribution of posterior beliefs. For example, panel (a) of Figure 4 shows that the luxury treatment caused an increase in the median belief about the billionaire's home value of \$9.00 million (p-value<0.001) as measured in the baseline survey. In turn, panel (a) of Figure 6 shows that the luxury treatment caused a corresponding increase of \$8.00 million (p-value = 0.008) measured a month later in the follow-up survey. A comparison of the different panels between Figure 4 and Figure 6 shows effects that are directionally consistent between the baseline and follow-up survey, although quantitatively weaker at follow-up.

Table 5 shows the ATEs on the different outcomes, with a side-by-side comparison between the outcomes measured in the baseline versus the follow-up survey. Due to the attrition rate, the sample sizes are 18% smaller for follow-up outcomes than for the baseline outcomes, and thus the effects are less precisely estimated. Moreover, as documented in previous studies (e.g. Cavallo et al., 2017), and consistent with the decay of effects in posterior beliefs, we expect the effects on the follow-up outcomes to be a fraction of the corresponding effects on baseline outcomes. The combination of lower sample sizes and smaller effect sizes makes it more difficult to detect effects on specific follow-up outcomes. In terms of point estimates, Table 5 shows that, due to a lack of power, we often fail to reject the null hypothesis of zero effects. However, in most cases, we cannot reject the hypothesis that the point estimates are the same in the baseline and follow-up surveys. The pairwise comparisons from Table 5 suggest that the effects on follow-up outcomes are typically half as large as the corresponding effects on the baseline outcomes. The main exception is the earnings treatment, where we observe that the effects on the desired income and corporate tax rates seem to have completely disappeared after a month. As described in Section 3.4 above, the effects of the earnings treatment were noted to be weaker, as they did not affect perceived tax fairness or policy support. The lack of persistence in these effects reinforces this conclusion.

In order to maximize statistical power, rather than focus on a specific coefficient, Figure 7 provides a more systematic comparison, pooling all the different coefficients. In this scatter-plot, each observation corresponds to a pair of coefficients from Table 5: the x-axis shows the average effect of a given treatment on the baseline outcome (e.g., the effect of the luxury treatment on the preferred income tax rate), while the y-axis shows the corresponding effect

[52]For example, panel (a) of Figure 4 shows that in the baseline survey, the treatment had a dramatically positive effect on the probability that the respondent guesses almost exactly the value of the billionaire's home. In comparison, Figure 6 shows that this effect still exists in the follow-up survey, but is not nearly as large.

on the follow-up outcome.[53] To be able to compare the results between different outcomes, we standardize all coefficients using the standard deviation of the relevant outcome variable in the control group.[54] Figure 7 shows a strong linear relationship between the effects on the baseline outcomes and the corresponding effects on the follow-up outcomes. The slope of this linear relationship suggests that, on average, the effects on follow-up outcomes were 51.3% as strong as the effects on baseline outcomes.

4 Conclusions

Our study provides novel insights into how information about billionaires and their wealth affects public preferences for taxation. We designed an information-provision experiment with multiple treatments, each inspired by prior research on redistribution and the arguments made by academics, journalists, and the general public to increase taxes on billionaires. We find that different types of information have varying impacts on people's beliefs and policy preferences. Contrary to expert predictions that all treatments would have strong positive effects, our experimental findings reveal that most treatments do not increase the demand for taxation, and some even reduce it.

Two treatments stand out as having the strongest effects, albeit in opposite directions. On the one hand, showing images of lavish homes owned by billionaires robustly increases the demand for taxation, suggesting that visual depictions of wealth disparity can significantly influence public opinion. On the other hand, informing individuals that billionaires pay low effective tax rates results in a substantial negative backlash, likely due to a status-quo bias. We find that the effects on the demand for taxing billionaires were accompanied by similar effects on the desire to tax their companies. Furthermore, we find that most of the treatment effects persisted in the follow-up survey conducted a month later, although at roughly half their original magnitude. One of our results challenges a classic findings from the broader literature on preferences for redistribution. We find that persuading individuals that a billionaire's success is not solely due to their honest and hard work is largely ineffective at increasing demand for taxation.

Our findings have implications for both researchers and policymakers. Our study highlights the need to consider the mode of information delivery. The luxury treatment, which

[53] The policy and sentiment indices are defined slightly different between baseline and follow-up surveys, because the follow-up survey does not include the petition and the willingness to pay for the company's backpack. However, panel (a) of Figure B.14 shows that the results are consistent if we compare the effects on the individual questions and exclude these two questions that do not overlap.

[54] Another caveat is that, due to attrition, the follow-up coefficients are estimated on a sub-sample of the data used for the baseline coefficients. However, panel (b) of Figure B.14 that the results are similar if we restrict the sample to subjects who participated in the follow-up survey.

included visual and narrative elements about a billionaire's lavish lifestyle, significantly increased policy support and demand for higher taxes. In contrast, the earnings treatment, which provided statistical information about the billionaire's income, had a weaker effect on policy support and tax preferences. This difference suggests that emotionally engaging content may be more effective at shifting public opinion toward supporting redistributive policies. We leave it to future studies to explore the psychological mechanisms underlying these responses.

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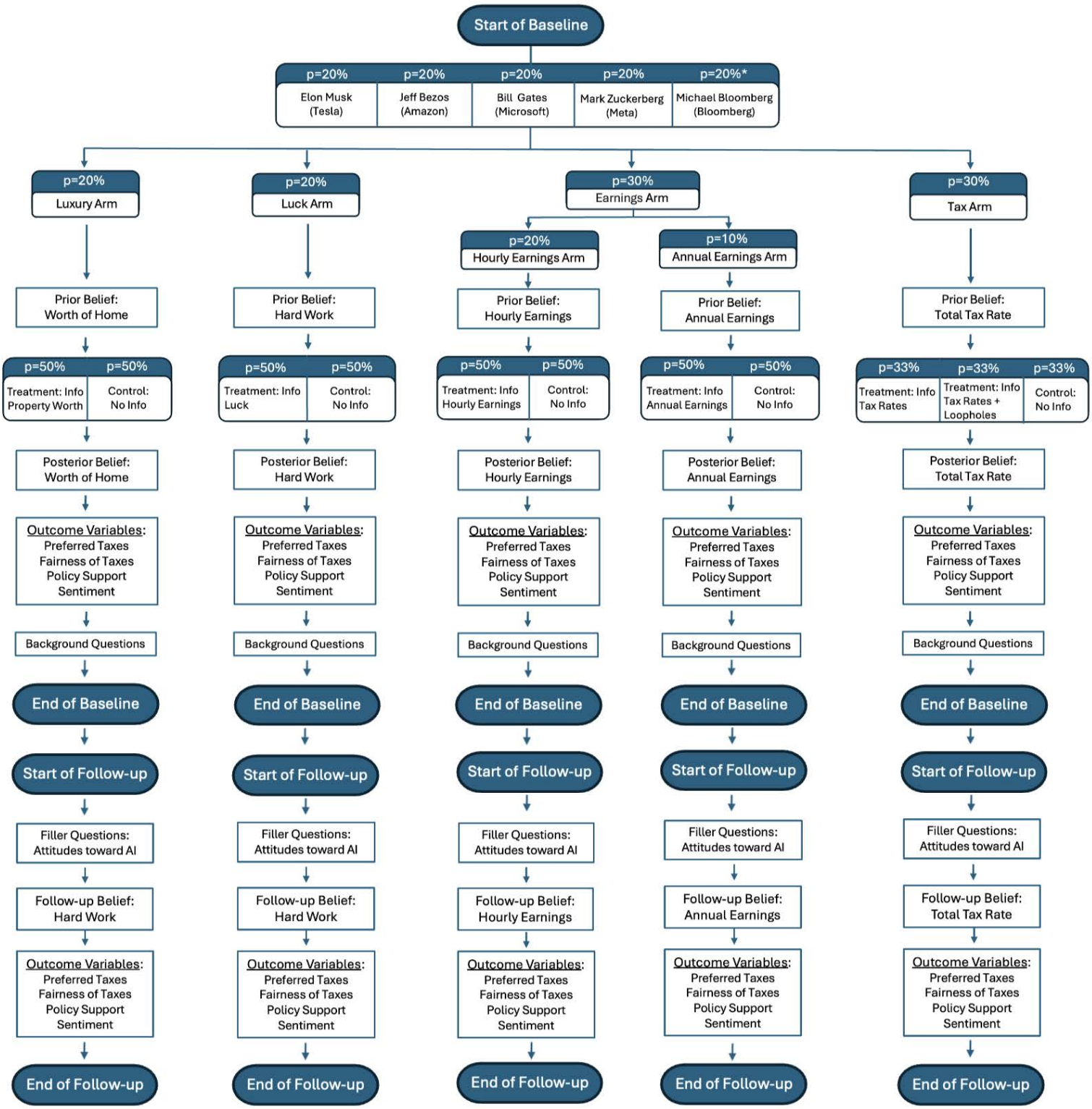
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Figure 1: Survey Outline



Notes: * Due to a lack of suitable information for Bloomberg, subjects in the Luck treatment were randomly assigned to one of the four other billionaires (with a 25% probability for each). This figure summarizes the structure of the baseline and follow-up surveys. The belief questions in the follow-up survey were identical to those in the baseline survey. The outcome variables were also identical in the follow-up, except that we did not ask about the willingness to sign the petition or the willingness to pay for the backpack.

Figure 2: Screenshots of Treatments (Using Bill Gates as an Example)

(a) Luxury

According to some accounts, **Bill Gates lives in a $130 million mansion in Medina, Washington**. The 66,000 square-foot complex features a pool with an underwater music system, a trampoline room, a 2,500 square foot gym, a movie theater, a library, and a reception hall that can accommodate up to 200 guests.



Source: Business Insider

(b) Luck

Bill Gates faced accusations of stealing the idea for Windows.



After the launch of the first version of Windows in 1985, Steve Jobs claimed that Gates had stolen the idea for the graphical user interface from Apple. "They just ripped us off completely, because Gates has no shame," Jobs once said. In response, Gates admitted that they both he and Jobs had copied the idea from the Xerox research institute: “I think it's more like we both had this rich neighbor named Xerox and I broke into his house to steal the TV set and found out that you had already stolen it.”

Source: Medium, Business Insider

(c) Hourly Earnings

Bill Gates' earnings have significantly increased since he became a billionaire in 1987.

Between 1987 and 2023, his wealth has grown from around $1.25 billion to $111 billion.

This means that, on average, Bill Gates has earned about $3.05 billion per year during this period.

If we divide this yearly amount by the number of hours in a year, it means **Bill Gates has earned about $348,015 per hour** during this time.

Source: Forbes, 2023.

(d) Annual Earnings

Bill Gates' earnings have significantly increased since he became a billionaire in 1987.

Between 1987 and 2023, his wealth has grown from around $1.25 billion to $111 billion.

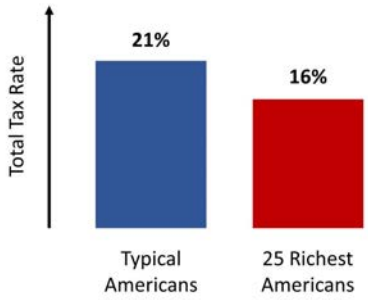
This means that, on average, **Bill Gates has earned about $3.05 billion per year** during this period.

Source: Forbes, 2023.

(e) Tax Rate

A single American worker who earns $45,000 per year has a total tax rate of 21% on average.

Bill Gates is one of the 25 richest Americans by net worth. Recent research has shown that **people in this group have a total tax rate of 16% on average**.



Source: ProPublica, 2022

(f) Tax Loophole

According to some accounts, billionaires manage to pay even lower tax rates through a variety of accounting strategies.

Billionaires often get paid in stocks.

Billionaires do not need to pay taxes on the stocks they hold until they sell it. By refraining from selling their stocks, billionaires can avoid generating taxable income. Instead, billionaires can access their wealth by borrowing against their stocks, which does not incur taxes.



Billionaires set up smaller companies in tax havens.

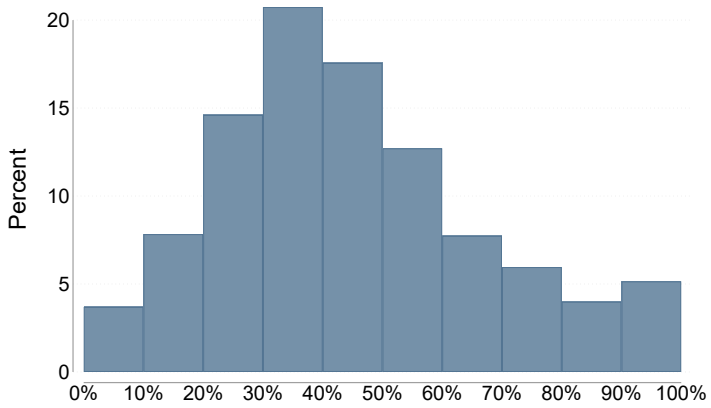
Billionaires can transfer the profits of their companies to these smaller companies, which pay very little or no taxes. A recent study revealed that U.S. multinational companies moved over half of their foreign profits to low-tax countries, leading to an estimated loss of around $50 billion in tax revenue for the US government.



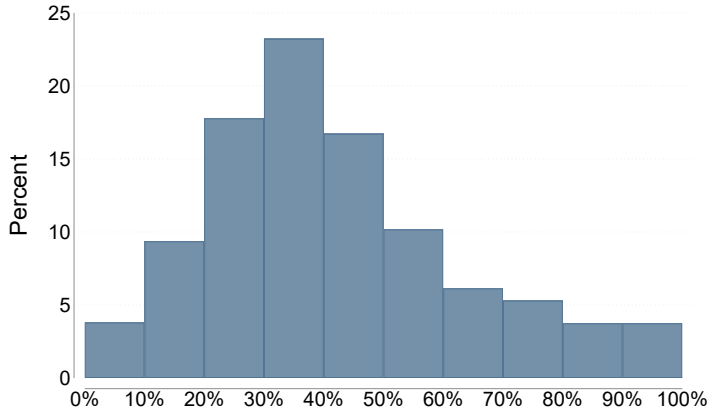
Sources: ProPublica, 2021, Tørsløv, Wier, Zucman (2023)

Figure 3: A Selection of Baseline Preferences and Attitudes

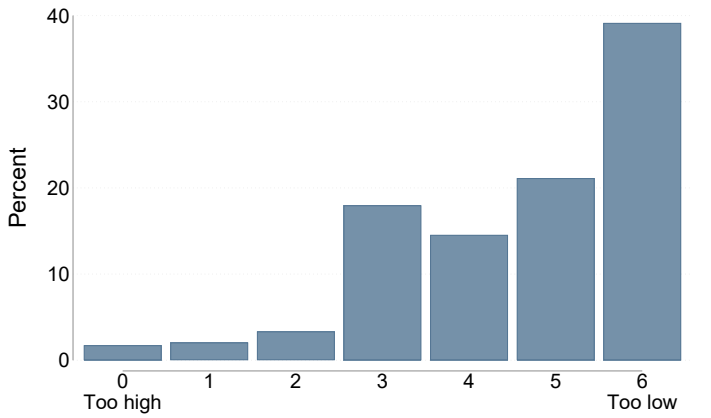
(a) Preferred Top Income Tax Rate



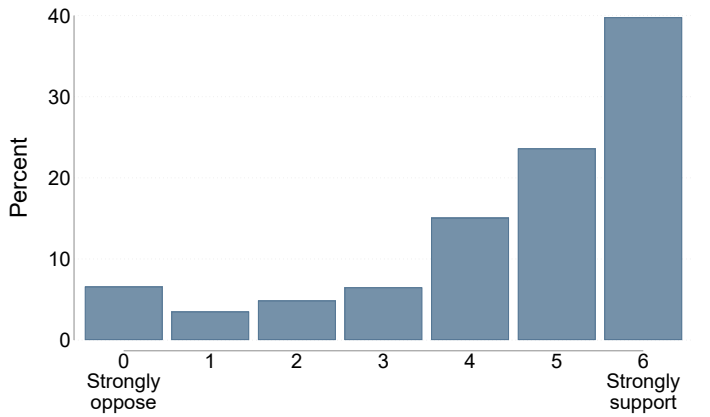
(b) Preferred Corporate Tax Rate



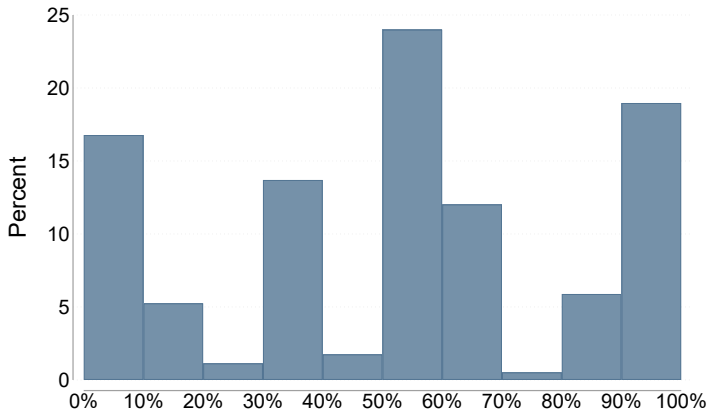
(c) Unfairness of Billionaire Taxes



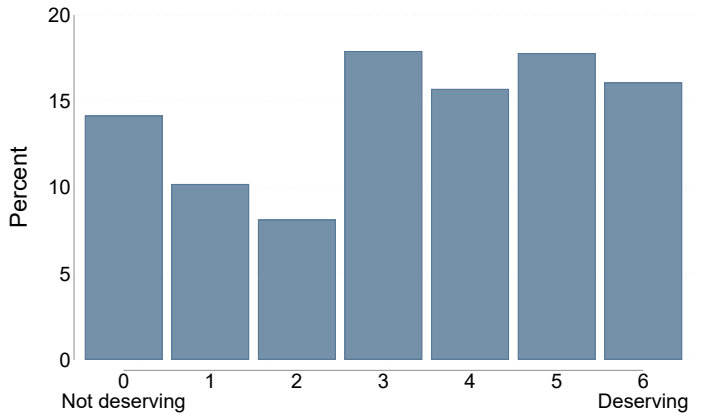
(d) Billionaire Minimum Income Tax



(e) Share Donated to Americans for Tax Fairness



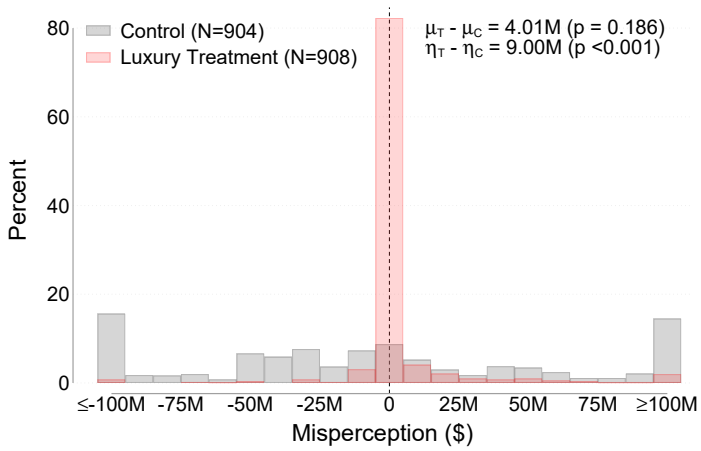
(f) Deservingness of Wealth



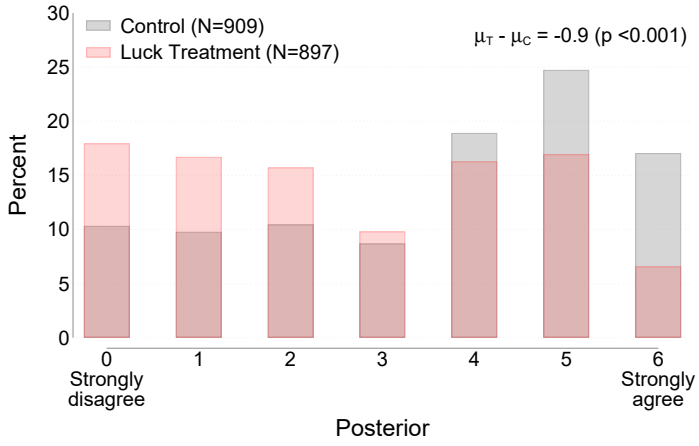
Notes: Histograms of a selection of preferences and attitudes for subjects in the control group. All survey questions used to measure these attitudes are listed in Table 2. Panel (a) is for the preferred top income tax rate for billionaires. Panel (b) is for the preferred corporate tax rate for billionaire-owned companies. Panel (c) is for opinions on whether taxes paid by billionaires are too high or too low from a fairness perspective. Panel (d) is for the support for a policy proposal on a billionaire minimum income tax. Panel (e) is for the share of the budged donated to Americans for Tax Fairness. Panel (f) is for the opinions on whether billionaires deserve their wealth.

Figure 4: Distribution of Posterior Beliefs

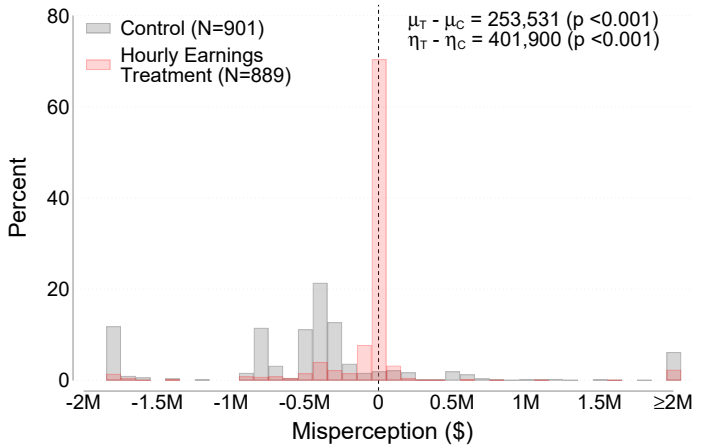
(a) Perceived Value of Billionaire's Home



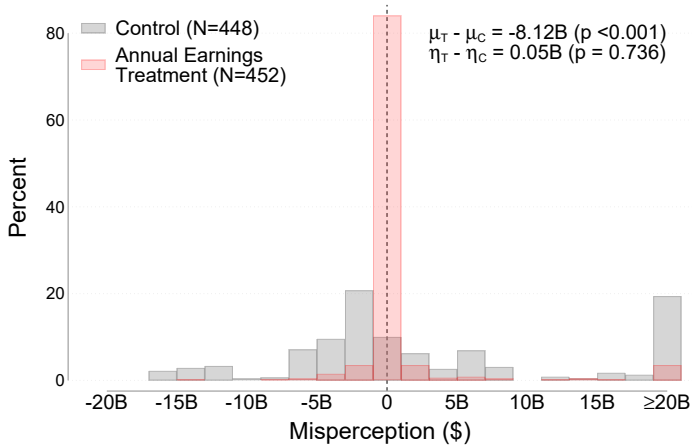
(b) Perceived Role Of Hard Work



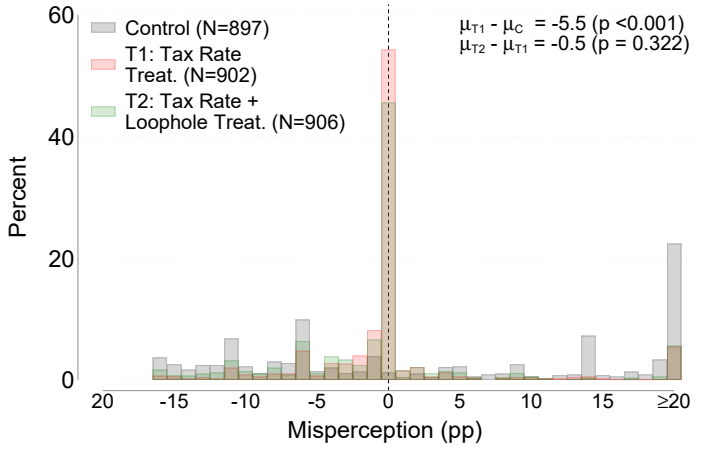
(c) Perceived Hourly Earnings



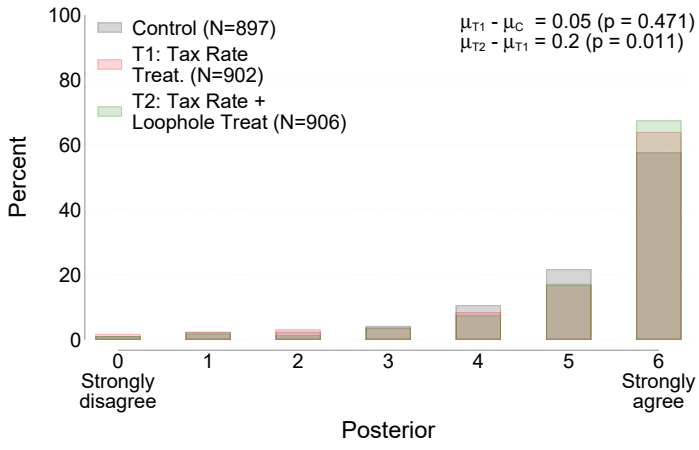
(d) Perceived Annual Earnings



(e) Perceived Billionaire Tax Rate

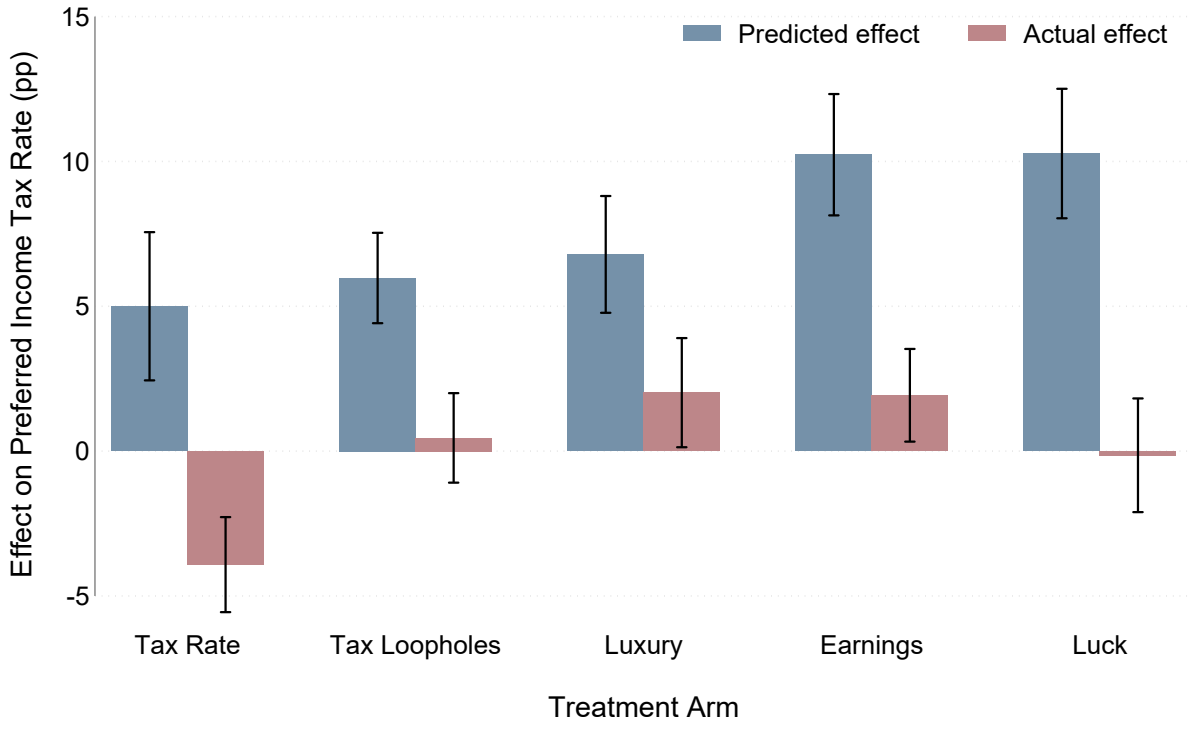


(f) Perceived Abuse of Tax Loopholes



Notes: Histograms of posterior beliefs in the baseline survey. Each panel represents a different treatment arm. All survey questions used to measure these beliefs are listed in Table 1. Gray bins denote subjects in the control group and red bins denote subjects in the treatment group (in panels (e) and (f), green bins correspond to subjects in the tax loophole sub-treatment). In panels (a), (c), (d), and (e), the x-axis corresponds to the difference between the subject's posterior belief and the information provided in the treatment. Average posteriors are denoted by μ and median posteriors by η, with the difference p-values reported in parentheses.

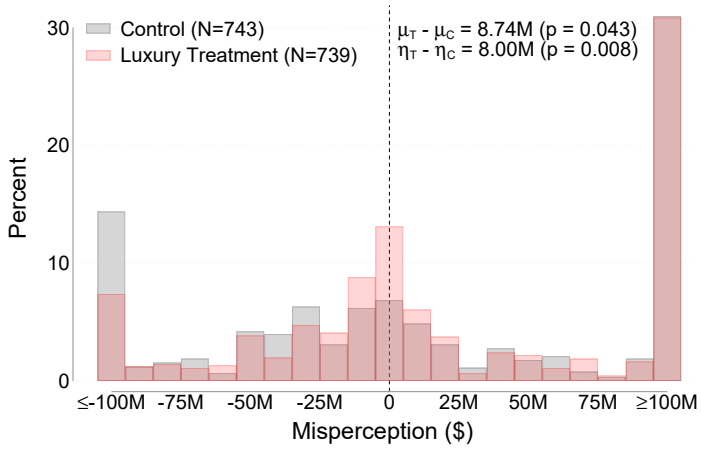
Figure 5: Comparison between Expert Forecasts and Experimental Estimates



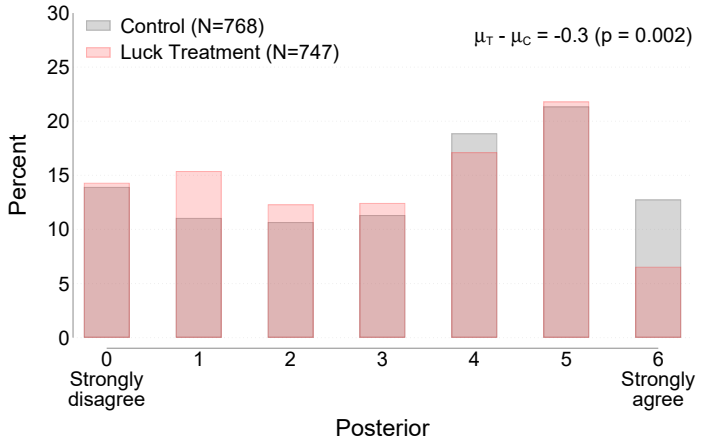
Notes: The figure shows the experts' predictions of the treatment effects alongside the actual experimental estimates. The blue bars represent the experts' predictions, while the red bars represent the actual ATEs (shown in Table 4). The prediction for the Tax Loopholes treatment represents the difference between the predicted effect on the top income tax rate in the Loophole treatment and the Tax Rate treatment. The prediction for the Earnings treatment is a weighted average (according to sample sizes in the actual study) of the predicted effects of the hourly and annual earnings treatments. Error bars indicate the 95% confidence interval.

Figure 6: Distribution of Posterior Beliefs in Follow-up Survey

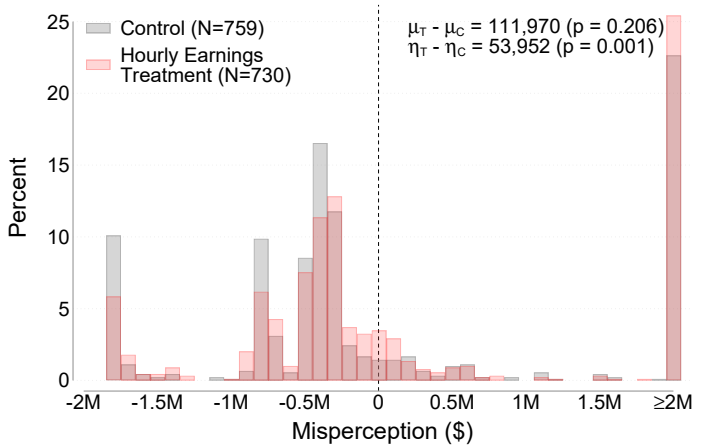
(a) Perceived Value of Billionaire's Home



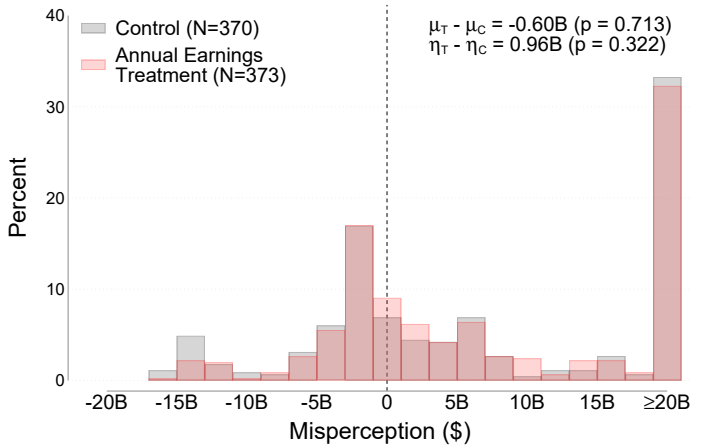
(b) Perceived Role Of Hard Work



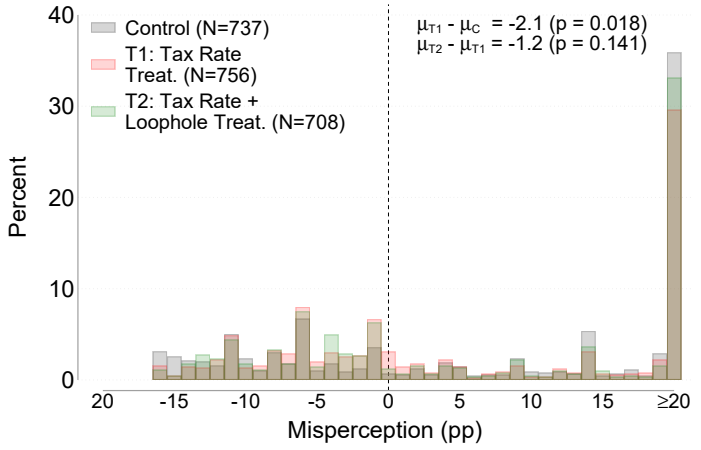
(c) Perceived Hourly Earnings



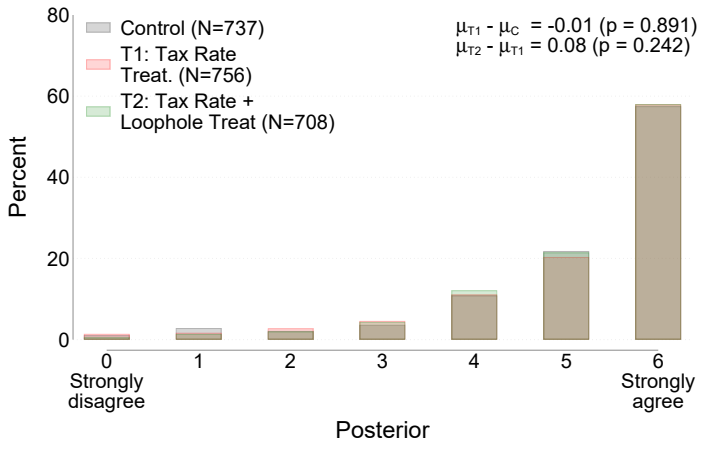
(d) Perceived Annual Earnings



(e) Perceived Billionaire Tax Rate

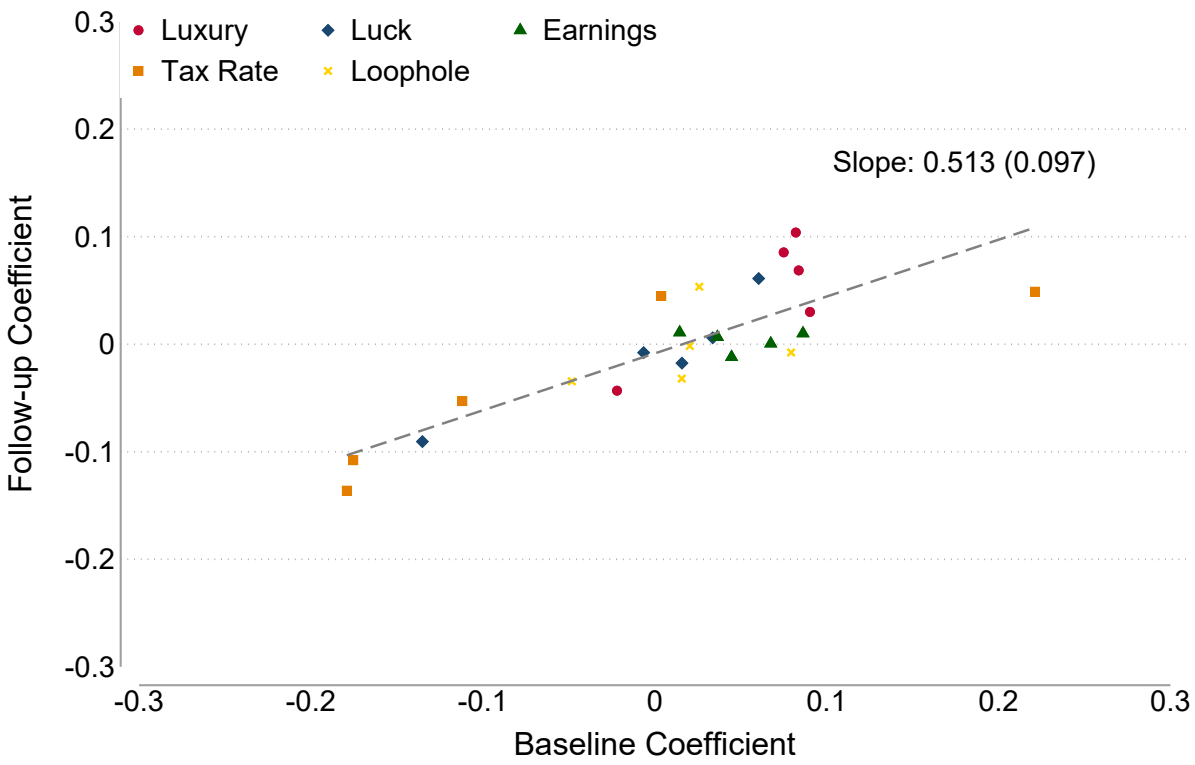


(f) Perceived Abuse of Tax Loopholes



Notes: Histograms of posterior beliefs in the follow-up survey. Each panel represents a different treatment arm. All survey questions used to measure these beliefs are listed in Table 1. Gray bins denote subjects in the control group and red bins denote subjects in the treatment group (in panels (e) and (f), green bins correspond to subjects in the tax loophole sub-treatment). In panels (a), (c), (d), and (e), the x-axis corresponds to the difference between the subject's posterior belief and the information provided in the treatment. Average posteriors are denoted by μ and median posteriors by η, with the difference p-values reported in parentheses.

Figure 7: Persistence of the Average Treatment Effects



Notes: The figure shows the relationship between the baseline and follow-up ATEs. Each observation corresponds to a pair of coefficients from Table 5: the x-axis shows the average effect of a given treatment on the baseline outcome, while the y-axis shows the corresponding effect on the follow-up outcome. All coefficients are standardized using to the standard deviation of the relevant outcome in the control group. Red circles represent coefficients from the Luxury treatment, blue diamonds represent coefficients from the Luck treatment, red triangles represent coefficients from the Earnings treatment, orange squares represent coefficients from the Tax Rate treatment, and yellow crosses represent coefficients from the Loophole treatment.

Table 1: Summary of Questions used as Prior and Posterior Beliefs

Treatment Arm	Prior/Posterior Question(s)
Luxury Arm	[Billionaire] owns a residence in [Location]. How much do you think this property is worth?
Luck Arm	Please indicate to what extent you disagree or agree with the following statement: "[Billionaire] earned his wealth through honest and hard work."
Earnings Arm	How much do you think [Billionaire] earns per [hour/year]?
Tax Arm	What do you think is the total tax rate paid by [Billionaire]?
	Please indicate to what extent you disagree or agree with the following statement: "Billionaires abuse loopholes in the tax code to avoid paying taxes."

Notes: Screenshots of the survey instrument are attached as Appendices C and D.

Table 2: Definition of Outcome Variables

Outcome	Question
Income tax rate	Imagine that the US government is considering introducing a new personal income tax rate specifically targeting incomes exceeding $10 million. This tax rate would apply to all billionaires, including individuals like [Billionaire]. If you were given the authority (...), what rate would you choose?
Corporate tax rate	The corporate tax rate is the percentage of profits that US companies pay in taxes to the government. Imagine that the US government is considering introducing a new corporate tax rate specifically for companies that make profits exceeding $10 million. This new corporate tax rate would apply to large businesses such as [Company]. If you were given the authority (...), what rate would you choose?
Taxes unfair	From a perspective of fairness, do you think the taxes paid by [Billionaire] are too high, appropriate, or too low?
Policy Index	Standardized index based on six metrics: (i) Support for President Biden's minimum tax proposal. (ii) Support for a new tax on extreme wealth. (iii) Support for a new international tax targeting large businesses. (iv) Support for funding to the IRS to enhance tax enforcement. (v) Amount from the $300 donation budget allocated to Americans for Tax Fairness. (vi) Intention to sign the Oxam petition to increase taxes on the ultra-rich.
Sentiment Index	Standardized index based on five metrics: (i) Agreement with the statement "[Billionaire] deserves the wealth he has." (ii) To what extent do you believe [Billionaire] is trustworthy? (iii) How would you rate your feelings towards [Billionaire] on a scale of 0 to 10 (...)? (iv) How would you rate your overall perception of [Company] on a scale of 0 to 10 (...)? (v) Willingness to pay for a backpack with [Company]'s logo.

Notes: Screenshots of the survey instrument are attached as Appendices C and D.

Table 3: Descriptive Statistics and Balance Tests

		Luxury Arm			Luck Arm			Earnings Arms			Tax Arm			
	(1) Full	(2) Control	(3) Treat.	(4) p-value	(5) Control	(6) Treat.	(7) p-value	(8) Control	(9) Treat.	(10) p-value	(11) Control	(12) Treat. I	(13) Treat. II	(14) p-value
Panel (a): Characteristics														
Female	48.7	48.9	48.0	0.709	48.0	47.8	0.953	50.3	49.1	0.537	47.7	49.1	48.3	0.838
	(0.53)	(1.66)	(1.66)		(1.66)	(1.67)		(1.36)	(1.37)		(1.67)	(1.67)	(1.66)	
Age $\leq$ 35	46.5	46.8	45.3	0.514	46.3	46.8	0.829	45.7	49.0	0.084	47.3	45.5	45.6	0.691
	(0.53)	(1.66)	(1.65)		(1.65)	(1.67)		(1.36)	(1.37)		(1.67)	(1.66)	(1.66)	
White	63.4	62.6	64.1	0.512	63.0	61.4	0.481	63.6	64.1	0.775	62.4	63.6	64.7	0.611
	(0.51)	(1.61)	(1.59)		(1.60)	(1.63)		(1.31)	(1.31)		(1.62)	(1.60)	(1.59)	
Black	15.3	15.7	14.1	0.336	15.4	15.9	0.752	15.1	16.0	0.550	14.8	15.4	15.5	0.918
	(0.38)	(1.21)	(1.16)		(1.20)	(1.22)		(0.98)	(1.00)		(1.19)	(1.20)	(1.20)	
Asian	10.2	10.3	11.0	0.617	9.2	11.5	0.118	10.4	10.1	0.840	9.7	10.3	9.2	0.712
	(0.32)	(1.01)	(1.04)		(0.96)	(1.07)		(0.83)	(0.82)		(0.99)	(1.01)	(0.96)	
Hispanic	7.5	7.1	7.0	0.979	8.1	8.0	0.929	7.3	7.3	0.976	8.6	7.6	6.2	0.137
	(0.28)	(0.85)	(0.85)		(0.91)	(0.91)		(0.71)	(0.71)		(0.94)	(0.89)	(0.80)	
Income > 50k	65.2	64.2	65.1	0.679	65.2	61.6	0.114	65.4	64.6	0.663	65.3	68.2	67.4	0.414
	(0.50)	(1.60)	(1.58)		(1.58)	(1.62)		(1.30)	(1.31)		(1.59)	(1.55)	(1.56)	
College degree	68.9	69.9	68.3	0.453	68.5	68.8	0.910	68.8	68.2	0.755	68.0	71.4	68.9	0.263
	(0.49)	(1.53)	(1.55)		(1.54)	(1.55)		(1.26)	(1.27)		(1.56)	(1.51)	(1.54)	
Democrat	49.7	50.9	47.6	0.159	45.7	50.8	0.028	51.5	50.9	0.731	48.3	52.1	48.3	0.177
	(0.53)	(1.66)	(1.66)		(1.65)	(1.67)		(1.36)	(1.37)		(1.67)	(1.66)	(1.66)	
Republican	18.5	17.8	18.1	0.889	20.7	19.3	0.459	17.0	17.3	0.863	18.7	18.2	20.3	0.496
	(0.41)	(1.27)	(1.28)		(1.34)	(1.32)		(1.02)	(1.03)		(1.30)	(1.28)	(1.34)	
Independent	31.8	31.3	34.4	0.166	33.7	29.9	0.084	31.4	31.8	0.819	33.0	29.7	31.3	0.324
	(0.49)	(1.54)	(1.58)		(1.57)	(1.53)		(1.26)	(1.27)		(1.57)	(1.52)	(1.54)	
Redistribution Attitudes	5.6	5.5	5.6	0.609	5.7	5.7	0.607	5.8	5.7	0.961	5.6	5.5	5.7	0.584
	(0.03)	(0.09)	(0.09)		(0.09)	(0.09)		(0.07)	(0.08)		(0.09)	(0.09)	(0.09)	
Trust in Federal Government	1.1	1.1	1.1	0.349	1.1	1.1	0.550	1.1	1.1	0.415	1.0	1.1	1.1	0.239
	(0.01)	(0.02)	(0.02)		(0.02)	(0.02)		(0.02)	(0.02)		(0.02)	(0.02)	(0.02)	
Panel (b): Attrition														
Follow-up participation	82.4	82.2	81.4	0.658	84.5	83.3	0.484	83.7	82.3	0.321	82.2	83.8	78.1	0.008
	(0.40)	(1.27)	(1.29)		(1.20)	(1.25)		(1.01)	(1.04)		(1.28)	(1.23)	(1.37)	
Observations	9,013	904	908		909	897		1,349	1,341		897	902	906	

Notes: This table reports information on the characteristics of the subjects and participation in the follow-up study in the different treatment arms. Column (1) corresponds to the full sample, columns (2)–(4) correspond to the Luxury treatment arm, columns (5)–(7) correspond to the Luck treatment arm, columns (8)–(10) correspond to the Earnings treatment arm, and columns (11)–(14) correspond to the Tax Rate treatment arm. Treatment I corresponds to the Tax Rate treatment and Treatment II to the Tax Rate + Loophole treatment. Columns (4), (7), and (10) report the p-values of tests for equal means between the treatment and control groups. Column (14) reports the p-value of an F-test for equal means across the two treatments and the control group. Standard errors are reported in parentheses.

Table 4: Average Treatment Effects

	(1) Income tax rate	(2) Corporate tax rate	(3) Taxes unfair	(4) Policy Index	(5) Sentiment Index	(6) N
Luxury	2.018**	1.812*	0.121**	0.075**	-0.022	1,812
	(0.961)	(0.934)	(0.061)	(0.035)	(0.040)	
	[0.083]	[0.095]	[0.094]	[0.083]	[0.476]	
Luck	-0.144	0.730	0.089	0.016	-0.135***	1,806
	(1.001)	(0.967)	(0.058)	(0.035)	(0.040)	
	[0.585]	[0.467]	[0.154]	[0.476]	[0.004]	
Earnings	1.927**	1.460*	0.054	0.015	0.045	2,690
	(0.816)	(0.787)	(0.049)	(0.028)	(0.033)	
	[0.065]	[0.106]	[0.278]	[0.476]	[0.202]	
Tax rate	-3.918***	-3.875***	0.327***	-0.112***	0.004	2,705
	(0.837)	(0.833)	(0.057)	(0.035)	(0.039)	
	[0.001]	[0.001]	[0.001]	[0.006]	[0.585]	
Tax loophole	0.456	0.340	0.038	0.079**	-0.048	
	(0.788)	(0.777)	(0.054)	(0.035)	(0.039)	
	[0.476]	[0.476]	[0.474]	[0.068]	[0.235]	
Baseline Mean	42.52	39.80	4.62	0.00	0.00	
Baseline SD	22.34	21.63	1.48	1.00	1.00	

Notes: This table reports OLS estimates of equation (1) from Section 3.2 for the different treatment arms. The dependent variable in column (1) is the preferred top income tax rate for billionaires. The dependent variable in column (2) is the preferred corporate tax rate. The dependent variable in column (3) indicates whether subjects perceive billionaire taxes as too high (0) or too low (6) from a fairness perspective. The dependent variable in column (4) is an index of policy support. The dependent variable in column (5) is a sentiment index. Column (6) indicates the number of observations in each treatment arm. The baseline mean and standard deviation from the control group are presented at the bottom of the table. Significant at *10%, **5%, ***1%. Robust standard errors in parentheses. Sharpened q-values in square brackets.

Table 5: Comparison of Average Treatment Effects between Baseline and Follow-Up Surveys

	Income tax rate		Corporate tax rate		Taxes unfair		Policy Index		Sentiment Index		
	(1) Baseline	(2) Follow-up	(3) Baseline	(4) Follow-up	(5) Baseline	(6) Follow-up	(7) Baseline	(8) Follow-up	(9) Baseline	(10) Follow-up	(11) N
Luxury	2.018**	0.671	1.812*	1.485	0.121**	0.153**	0.075**	0.085**	-0.022	-0.043	1,812
	(0.961)	(1.086)	(0.934)	(1.036)	(0.061)	(0.068)	(0.035)	(0.039)	(0.040)	(0.046)	[1,482]
Diff. p-value	0.140		0.718		0.546		0.737		0.469		
Luck	-0.144	-0.174	0.730	0.129	0.089	0.090	0.016	-0.018	-0.135***	-0.091**	1,806
	(1.001)	(1.128)	(0.967)	(1.081)	(0.058)	(0.064)	(0.035)	(0.038)	(0.040)	(0.046)	[1,515]
Diff. p-value	0.975		0.521		0.986		0.285		0.153		
Earnings	1.927**	0.225	1.460*	0.013	0.054	0.010	0.015	0.011	0.045	-0.012	2,690
	(0.816)	(0.901)	(0.787)	(0.870)	(0.049)	(0.052)	(0.028)	(0.032)	(0.033)	(0.037)	[2,232]
Diff. p-value	0.029		0.067		0.324		0.891		0.021		
Tax rate	-3.918***	-2.410**	-3.875***	-2.944***	0.327***	0.072	-0.112***	-0.053	0.004	0.045	2,705
	(0.837)	(0.961)	(0.833)	(0.920)	(0.057)	(0.066)	(0.035)	(0.041)	(0.039)	(0.044)	[2,201]
Diff. p-value	0.045		0.233		<0.001		0.078		0.172		
Tax loophole	0.456	-0.036	0.340	-0.691	0.038	0.079	0.079**	-0.008	-0.048	-0.034	
	(0.788)	(0.915)	(0.777)	(0.872)	(0.054)	(0.064)	(0.035)	(0.041)	(0.039)	(0.044)	
Diff. p-value	0.508		0.182		0.445		0.010		0.653		
Baseline Mean	42.52	42.26	42.52	39.50	4.62	4.59	0.00	-0.02	0.00	0.01	
Baseline SD	22.34	22.25	22.34	21.47	1.48	1.49	1.00	1.01	1.00	0.99	

Notes: Results from equation (1) from Section 3.2. We estimate two regressions per treatment arm (one for the baseline survey and another for the follow-up). The dependent variables are: the preferred top income tax rate for billionaires in columns (1)–(2); the preferred corporate tax rate in columns (3)–(4); whether subjects perceive billionaire taxes as too high from a perspective of fairness in columns (5)–(6); the index of policy support in columns (7)–(8); and the sentiment index in columns (9)–(10). Column (11) indicates the number of observations in each treatment arm, with the number of observations in the follow-up study inside square brackets. We report the p-value of the test the coefficient is equal between the baseline and follow-up outcomes. The baseline means and standard deviations are presented at the bottom of the table. Significant at *10%, **5%, ***1%. Robust standard errors in parentheses.

Online Appendix (For Online Publication Only)

Billionaire Superstar: Public Image and Demand for Taxation

Perez-Truglia and Yusof

July 13, 2024

A More Details about the Experimental Design

A.1 Survey Instruments

We present screenshots of the baseline survey instrument in Appendices C and D. For brevity, all these screenshots use Elon Musk as an example. For completeness, the screenshots include all treatment arms, where the headers framed in red boxes indicate the treatment arm. As a result, a participant would not see all the screenshots presented in Appendices C and D. For example, subjects randomly assigned to the luxury treatment arm would only see the pages with the header "Treatment Arm: Luxury".

A.2 Numerical Validation

In the prior and posterior beliefs from the luxury treatment arm, we limited the maximum amount subjects could enter to $300 million. If subjects entered a larger amount, they saw an error message stating that their guess seems too high and advising them to double-check their answer. As a reference, the error message also explained that the most expensive house in the United States was listed for less than $300 million. 4.6% of the subjects entered the maximum amount for the prior beliefs. In the hourly earnings treatment, we did not limit the maximum amount subjects could enter, but commas were automatically added to mark thousands in order to reduce errors. In annual earnings treatment, we limited the maximum amount subjects could enter to $100 billion per year. If subjects entered a larger amount, they saw an error message stating that their guess seems too high and advising them to double-check their answer. We also reminded them that we are asking about the average income earned in one year in billions of dollars, in case the responsent was mixing the two up. 4.2% of the subjects in the annual earnings treatment entered the maximum amount for the prior beliefs.

B Additional Results and Robustness Checks

B.1 Familiarity with Billionaires

At the beginning of the baseline survey, we asked subjects how well they knew the assigned billionaire, offering three possible response options: "never heard of the person" (0), "heard of the person but don't know anything about them" (1), and "heard of the person and know a bit about them" (2). As a benchmark, we also asked about their familiarity with four other celebrities: Gabby Barrett and Taylor Swift, two American musicians, and D'Angelo Russell and LeBron James, two American basketball players.

Figure B.5 shows that the subjects were familiar with all the billionaires. Jeff Bezos, Mark Zuckerberg, Bill Gates, and Elon Musk are very well known by almost all subjects. Michael Bloomberg is slightly less well known, but subjects are still much more familiar with him than with the less famous celebrities Gabby Barrett and D'Angelo Russell.

B.2 Earnings Sub-Treatments

For all our analyses, we pool the data across the two earnings sub-treatments. Table B.4 now presents the ATEs separately for the two earnings sub-treatments. The results in Table B.4 suggest that the effects on the demand for taxation are slightly larger for the annual earnings treatment. However, for all outcomes, the differences in coefficients are not statistically significant.

B.3 Representativeness of the Experimental Sample

Table B.1 compares the characteristics of our experimental sample to the U.S. general population.[55] The table shows that the subjects in our experiment are quite similar to the general population. The most notable differences are that the experimental sample has a higher share of young individuals (46.5% vs. 31.0%), college-educated individuals (68.9% vs. 41.5%), and left-leaning individuals (49.7% vs. 34.9%).

B.4 Validation of Petition Outcome

In the control group, 59.7% of respondents said they wanted to sign a petition to increase taxes on the ultra-rich. We collect additional data to validate this outcome. Of the people

[55] Data on demographics and socioeconomic statistics from the U.S. population were taken from the American Community Survey from 2022. Data on political affiliation were taken from the American National Election Studies from 2020.

who said they wanted to sign the petition, 39.3% clicked on the URL we provided. This suggests that a significant fraction of people who *said* wanted to sign the petition may have *actually* signed it. However, this fraction must be taken with a grain of salt. On the one hand, it is possible that some individuals did sign the petition even though they did not click on the URL, because they copy-pasted the URL to their Internet browser instead. On the other hand, it is possible that some people clicked on the URL but did not end up signing the petition. For more validation of the petition data, in the follow-up survey we asked a couple of related questions. Among the individuals who said they wanted to sign the petition in the baseline and completed the follow-up, 22.6% said that they had heard about the petition, and 48.4% of those said they had signed it in the past.

B.5 Prior Beliefs

Figure B.8 shows a histogram of the distribution of prior beliefs. Each panel represents a different treatment arm. The red bins indicate individuals in the treatment group (who received the information), whereas the gray bins indicate individuals in the control group (who did not receive the information). In panel (a), for the luxury treatment arm, the x-axis depicts the difference between the individual's guess of the billionaire's home value and the actual value (as provided in the information treatment). Panel (a) shows that only a small fraction of the subjects in both the control and treatment groups have accurate prior beliefs, with a slight tendency for subjects to under-estimate the value of the properties. Since prior beliefs were elicited before the information-provision stage, we would not expect prior beliefs to significantly differ between the control and treatment groups on average. Panel (a) shows that the average prior is not statistically different between treatment and control group (p-value = 0.380), and there is no difference in median priors between the two groups (p-value = 0.373). The pattern is similar for the other treatment arms (panels (b) to (f)), where we do not find any statistical difference in priors between control and treatment groups.

B.6 Belief Updating

The elicitation of prior and posterior beliefs allows us to investigate how subjects update their beliefs after receiving information. Figure B.9 illustrates that subjects adjust their inaccurate beliefs when provided with information. Each panel represents a different treatment arm. In panel (a), for the luxury treatment arm, the x-axis corresponds to the difference between the individual's guess for the value of the billionaire's home and the true value (as shown in the information treatment), while the y-axis shows how much subjects updated their posterior beliefs compared to their priors. The blue squares represent subjects in the

control group who did not receive information about the billionaire's home. Although it is possible that these subjects might update their beliefs for spurious reasons, we do not observe any significant belief updating among control group subjects, regardless of their priors. The red squares represent subjects who received the information. Here, we observe a clear relationship between prior misperceptions and belief updating: subjects who under-estimated the billionaire's home value (negative misperceptions) adjust their posterior beliefs upward, while subjects who over-estimated the billionaire's home value (positive misperceptions) adjust their posterior beliefs downward.

We observe a similar pattern for the other treatment arms (panels (b) to (f)). For the tax treatment arm, belief updating for the total tax rate paid by billionaires is virtually identical in both the tax rate and tax loophole treatment, which is not surprising since subjects receive the same information about the actual total tax rate of billionaires. Panel (f) shows that subjects in the tax loophole treatment update their beliefs about billionaires' abuse of tax code loopholes more significantly compared to those in the tax rate treatment.

B.7 Robustness: Alternative Specifications

To investigate the robustness of our estimates presented in Table 4, we report the estimates of alternative specifications in Figure B.12. As a first robustness check, we restrict our set of control variables to basic background characteristics of the subjects, including their age, gender, ethnicity, income, and education (i.e., excluding controls for political affiliation and attitudes). Second, we re-estimate the regressions without including any control variables. To check whether our results are driven by subjects who are outliers in terms of their prior misperceptions, we run regressions where we drop 5% and 10% of the sample based on absolute prior misperceptions in the treatments where we measure priors quantitatively (i.e., the luxury treatment, the earnings treatments, and the tax treatment). Finally, to check whether our results are affected by the responses of individuals who did not understand the content and questions of the survey, we estimate the effects excluding subjects who found the survey difficult. Figure B.12 shows that the ATEs are robust across all these alternative specifications.

B.8 Robustness: Leave-One-Billionaire Out

For all our analyses, we pool the data across all billionaires. To investigate whether our results are driven by subjects assigned to a specific billionaire, we re-estimate the ATEs reported in Table 4, restricting the sample to four out of the five billionaires.[56] Figure B.13

[56] We do not have enough statistical power to estimate the ATE for each billionaire separately.

shows the coefficients of these regressions, where we exclude one billionaire at a time. The red coefficient corresponds to the pooled regression reported in Table 4. Figure B.13 shows that the results are not driven by any single billionaire. The ATEs do not change meaningfully when excluding one billionaire at a time, and there is no clear pattern suggesting that the exclusion of any particular billionaire significantly affects the coefficients.

B.9 Heterogeneity by Political Ideology

As attitudes towards taxation are politically quite polarized, the effects of the treatments may vary by political ideology. Table B.6 replicates the results from Table 4 but split by party affiliation. More precisely, the ATEs are reported separately for Democrats on one side and for Republicans and Independents on the other.[57] Overall, we do not find significant partisan differences between the coefficients.[58] For the luxury treatment, the effects appear to be slightly weaker for Democrats, and the opposite is true for the earnings treatment. The effects of the tax rate treatment on the demand for taxation are virtually the same regardless of party affiliation. Republicans and Independents seem to show a stronger reaction to the loophole information with respect to the demand for taxation, which might be due to the fact that Democrats already had a stronger prior belief that billionaires abuse loopholes in the tax code.

[57] We have to pool Republicans and Independents because, due to the sample sizes, we have limited power to detect differences between these two subgroups.

[58] The difference in the coefficients for the Sentiment Index in the tax rate treatment is marginally significant, but both coefficients are not significantly different from zero.

Figure B.1: Screenshots of Treatments Specific to Elon Musk

(a) Luxury

According to some accounts, **Elon Musk is living in an Austin mansion worth $12 million**. "Musk has been living in a nearly 8,000-square-foot estate owned by Howery, the co-founder of PayPal and former U.S. ambassador to Sweden — when Howery bought it in 2018 for $12 million, it was the most expensive property then on the market in Austin."



Source: Forbes

(b) Luck

Contrary to popular belief, Elon Musk did not start Tesla.

Tesla was founded in 2003 by Martin Eberhard and Marc Tarpenning. When the initial founders of Tesla went looking for venture capital funding in 2004, Elon Musk contributed $6.5 million of the initial round of investment and became chairman of the board of directors. The two initial founders, Eberhard and Tarpenning, left Tesla in 2007 and 2008, respectively, and Musk became the CEO of Tesla in 2008. In 2009, Eberhard sued Musk for calling himself a founder of Tesla, but the suit was settled in an agreement that also allows Musk to refer to himself as a co-founder.



Source: Business Insider; Yahoo Finance

(c) Hourly Earnings

Elon Musk's earnings have significantly increased since he became a billionaire in 2012.

Between 2012 and 2023, his wealth has grown from around $2 billion to $180 billion.

This means that, on average, Elon Musk has earned about $16.18 billion per year during this period.

If we divide this yearly amount by the number of hours in a year, it means **Elon Musk has earned about $1,847,000 per hour** during this time.

Source: Forbes, 2023.

(d) Annual Earnings

Elon Musk's earnings have significantly increased since he became a billionaire in 2012.

Between 2012 and 2023, his wealth has grown from around $2 billion to $180 billion.

This means that, on average, **Elon Musk has earned about $16.18 billion per year** during this period.

Source: Forbes, 2023.

Figure B.2: Screenshots of Treatments Specific to Jeff Bezos

(a) Luxury

According to some accounts, **Jeff Bezos recently spent nearly $150 million on two properties in Miami's Indian Creek Village** — an island sometimes called the "billionaire bunker." The neighboring properties come with features such as a home theater, library, pool, and wine cellar.

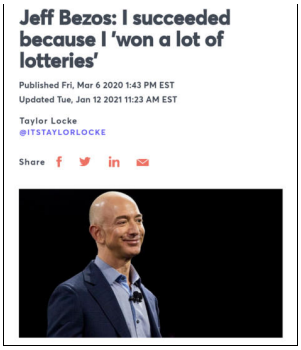


Source: NY Post, Business Insider

(b) Luck

Jeff Bezos could not have found Amazon without large investments from his parents.

Bezos' parents provided him with $250,000 when he was raising money to start Amazon. He generally admits luck played a big part in his success, saying, "I had a big lottery with my parents. If you don't get that kind of support somehow – it doesn't have to be your parents; sometimes people get lucky, and it's a grandparent, a friend, a family friend, or a teacher. But you need that. Somebody has to step into your life."



Source: CNBC

(c) Hourly Earnings

Jeff Bezos' earnings have significantly increased since he became a billionaire in 1998.

Between 1998 and 2023, his wealth has grown from around $1.6 billion to $114 billion.

This means that, on average, Jeff Bezos has earned about $4.5 billion per year during this period.

If we divide this yearly amount by the number of hours in a year, it means **Jeff Bezos has earned about $513,242 per hour** during this time.

Source: Forbes, 2023.

(d) Annual Earnings

Jeff Bezos' earnings have significantly increased since he became a billionaire in 1998.

Between 1998 and 2023, his wealth has grown from around $1.6 billion to $114 billion.

This means that, on average, **Jeff Bezos has earned about $4.5 billion per year** during this period.

Source: Forbes, 2023.

Figure B.3: Screenshots of Treatments Specific to Mark Zuckerberg

(a) Luxury

According to some accounts, **Mark Zuckerberg recently spent $59 million to acquire two adjacent private waterfront estates on Lake Tahoe, California**. Together, the estates span almost 10 acres of land and have 600 feet of Lake Tahoe private waterfront, with a pier that can accommodate yachts over 50 feet long.



Source: Business Insider, NY Post

(b) Luck

Mark Zuckerberg faced accusations of stealing the idea for Facebook.

After the platform's launch, Zuckerberg's former Harvard classmates claimed that he didn't come up with the idea himself. They accused him of taking the idea, source code, and business plan from them, leading to a lawsuit. In 2009, Facebook settled the case by paying up to $65 million, which included $20 million in cash and 1.25 million shares.

Source: The Guardian

Facebook paid up to $65m to founder Mark Zuckerberg's ex-classmates



(c) Hourly Earnings

Mark Zuckerberg's earnings have significantly increased since he became a billionaire in 2008.

Between 2008 and 2023, his wealth has grown from around $1.5 billion to $106 billion.

This means that, on average, Mark Zuckerberg has earned about $6.97 billion per year during this period.

If we divide this yearly amount by the number of hours in a year, it means **Mark Zuckerberg has earned about $795,282 per hour** during this time.

Source: Forbes, 2023.

(d) Annual Earnings

Mark Zuckerberg's earnings have significantly increased since he became a billionaire in 2008.

Between 2008 and 2023, his wealth has grown from around $1.5 billion to $106 billion.

This means that, on average, **Mark Zuckerberg has earned about $6.97 billion per year** during this period.

Source: Forbes, 2023.

Figure B.4: Screenshots of Treatments Specific to Michael Bloomberg

(a) Luxury

According to some accounts, **Michael Bloomberg recently spent $45 million on a Colorado ranch**, featuring a 19,000-square-foot main house, a helipad, helicopter hangar, golf course, swimming pool, tennis court, guest cabins, and staff buildings.



Source: Business Insider

(b) Hourly Earnings

Michael Bloomberg's earnings have significantly increased since he became a billionaire in 1996.

Between 1996 and 2023, his wealth has grown from around $1 billion to $96.3 billion.

This means that, on average, Michael Bloomberg has earned about $3.53 billion per year during this period.

If we divide this yearly amount by the number of hours in a year, it means **Michael Bloomberg has earned about $402,926 per hour** during this time.

Source: Forbes, 2023.

(c) Annual Earnings

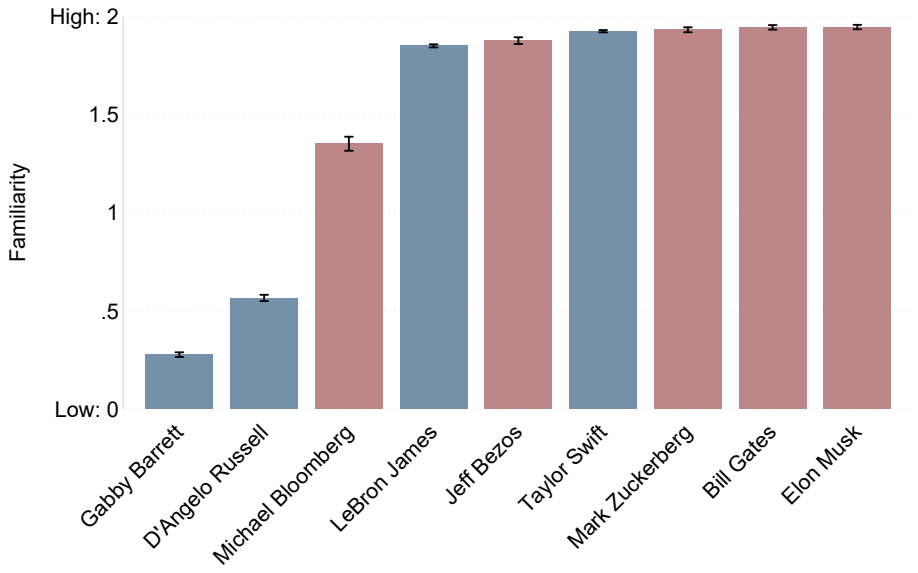
Michael Bloomberg's earnings have significantly increased since he became a billionaire in 1996.

Between 1996 and 2023, his wealth has grown from around $1 billion to $96.3 billion.

This means that, on average, **Michael Bloomberg has earned about $3.53 billion per year** during this period.

Source: Forbes, 2023.

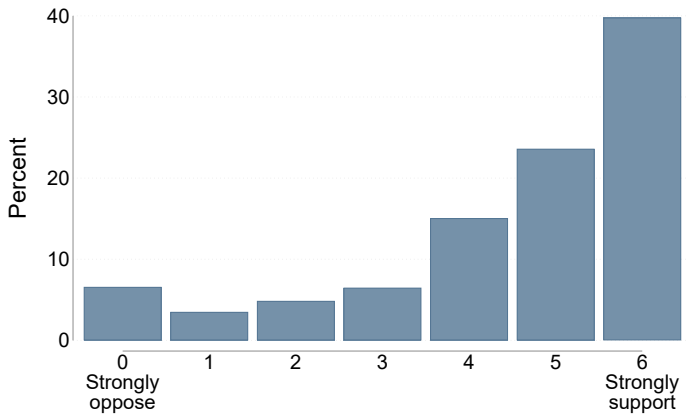
Figure B.5: Familiarity with Billionaires



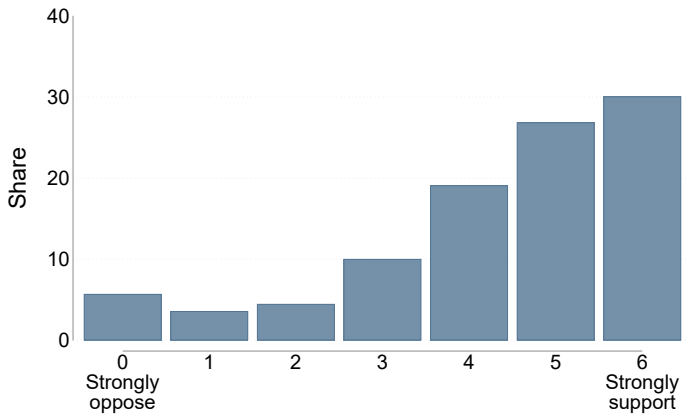
Notes: The figure shows subjects' familiarity with the five billionaires (red bars) and four benchmark celebrities (blue bars). Subjects could indicate their familiarity with three response options: "never heard of the person" (0), "heard of the person but don't know anything about them" (1), and "heard of the person and know a bit about them" (2). Error bars indicate the 95% confidence interval.

Figure B.6: Distribution of Components of Policy Index

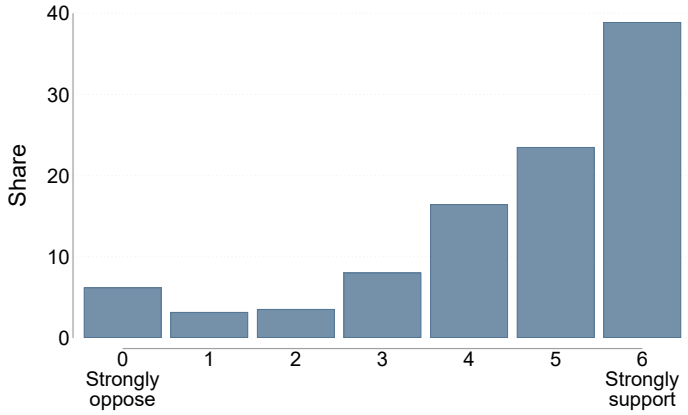
(a) Billionaire Minimum Income Tax



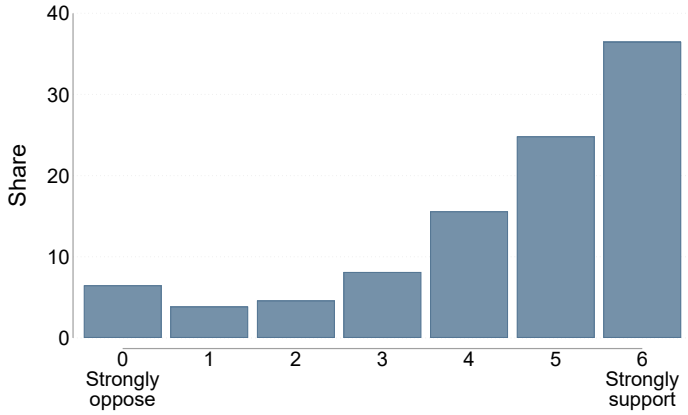
(b) International Corporate Tax



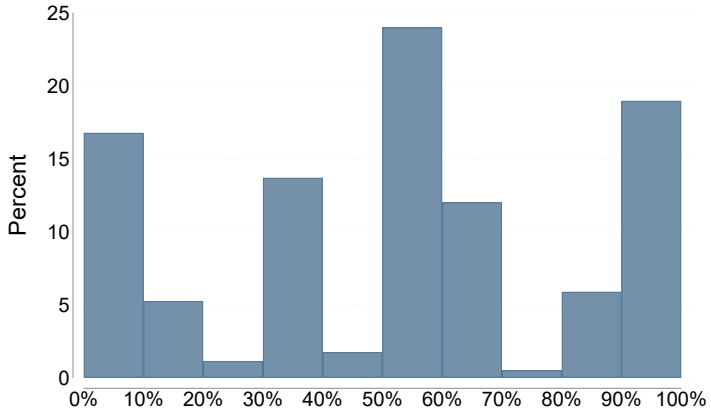
(c) California Extreme Wealth Tax



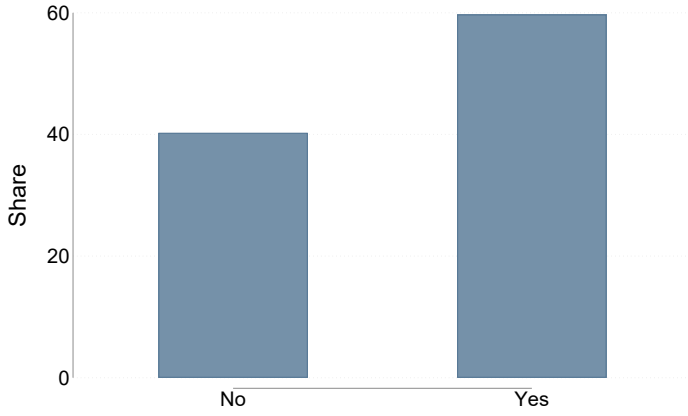
(d) Funding to the IRS



(e) Share Donated to Americans for Tax Fairness



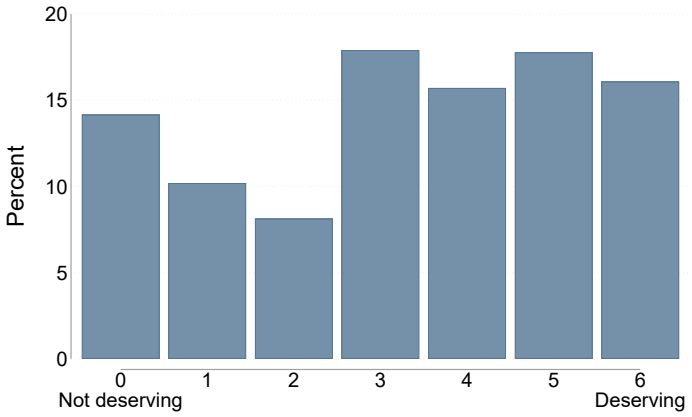
(f) Desired to Sign Oxfam Petition



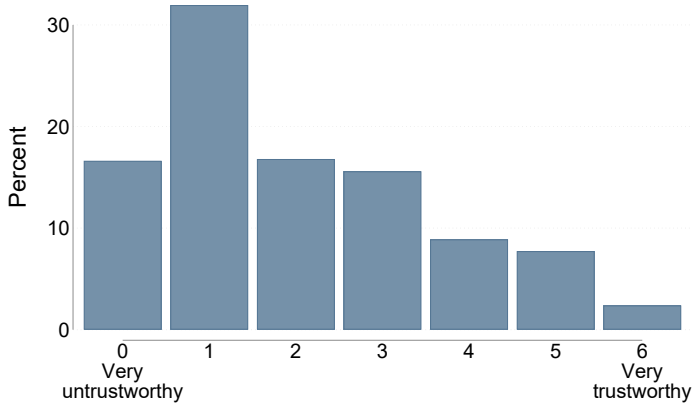
Notes: Histograms each of the items comprising the Policy Index, for subjects in the control group. All the survey questions are listed in Table 2. Panels (a)–(d) show the distribution of subjects' support for four different policy proposals. Panel (e) depicts the share of the budget donated to Americans for Tax Fairness. Panel (f) presents the share of subjects who wanted to sign the Oxfam petition.

Figure B.7: Distribution of Components of Sentiment Index

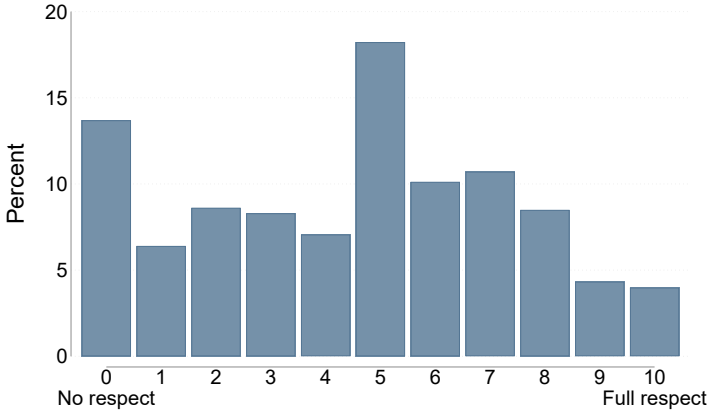
(a) Deservingness of Wealth



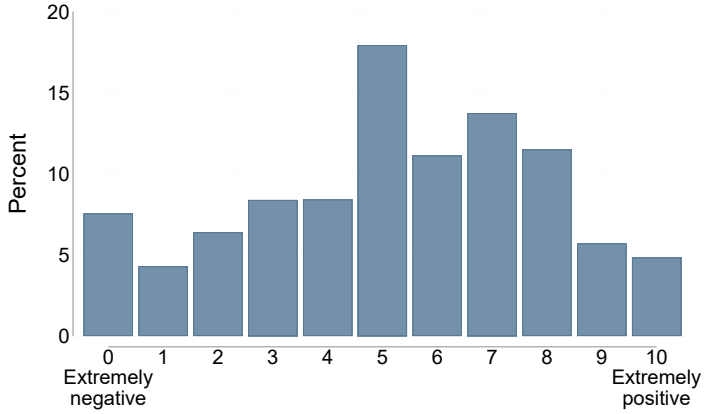
(b) Trustworthiness



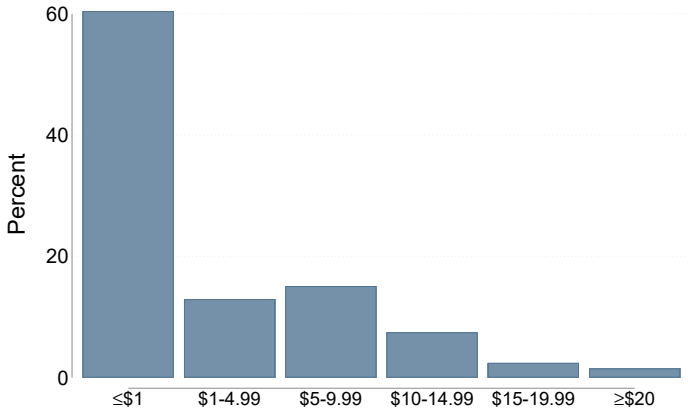
(c) Respect



(d) Perception of Company



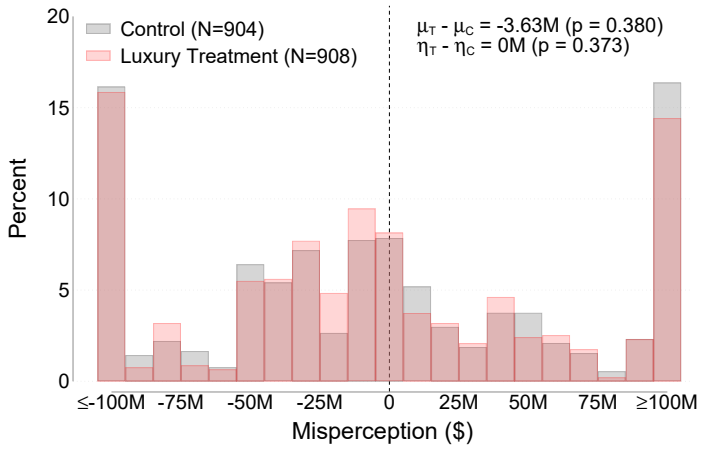
(e) Willingness to Pay for Backpack



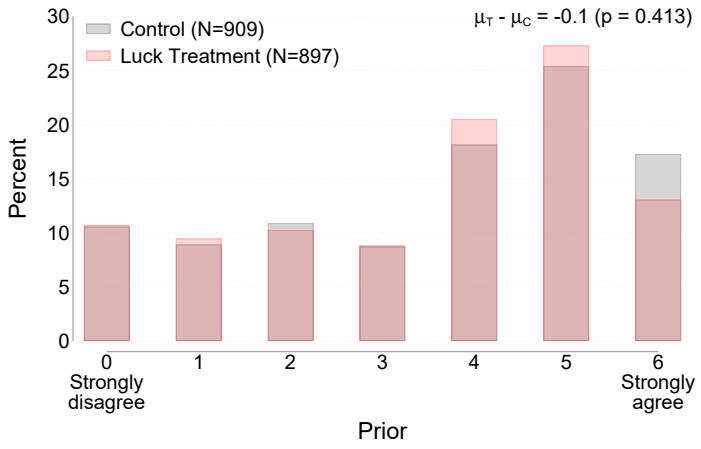
Notes: Histograms for the items comprising the Sentiment Index, for subjects in the control group. All the survey questions are listed in Table 2. Panels (a)–(d) present the distribution of opinions about the billionaire and his company. Panel (e) presents the distribution of the willingness to pay for a backpack with the logo of the billionaire's company.

Figure B.8: Distribution of Prior Beliefs

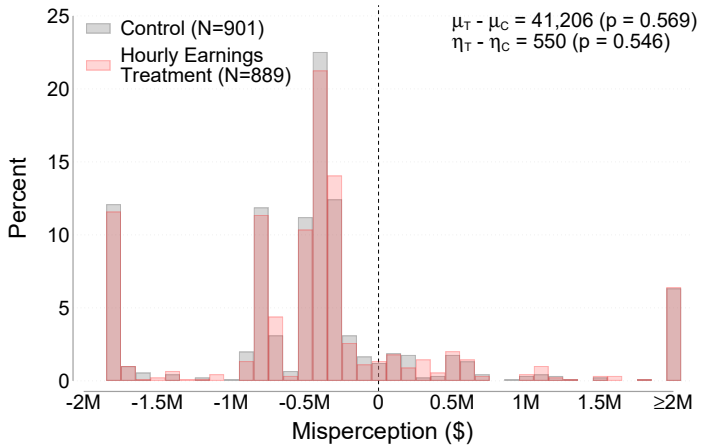
(a) Perceived Value of Billionaire's Home



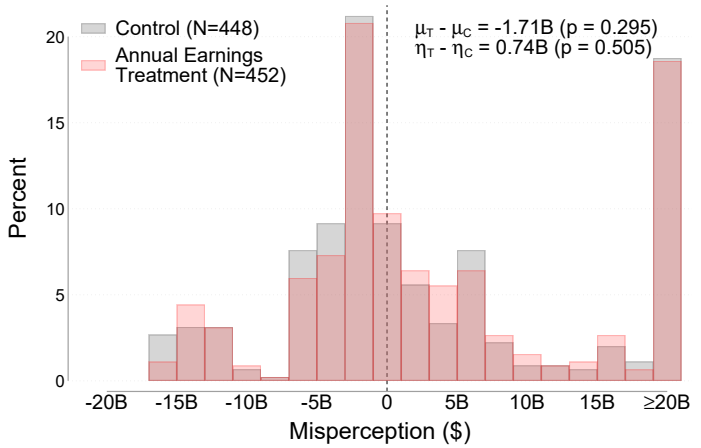
(b) Perceived Role Of Hard Work



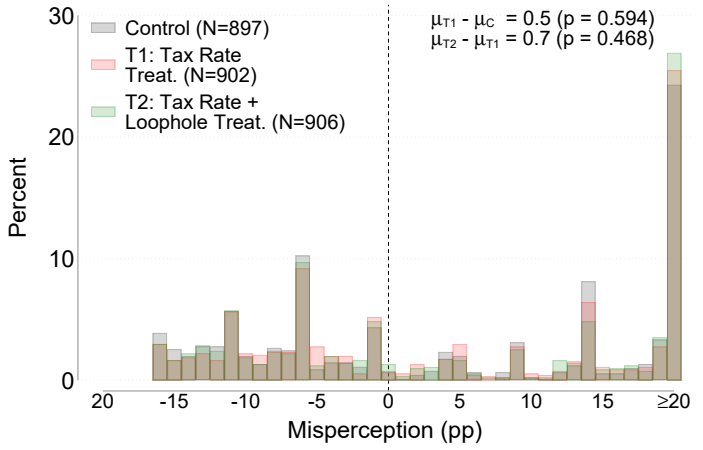
(c) Perceived Hourly Earnings



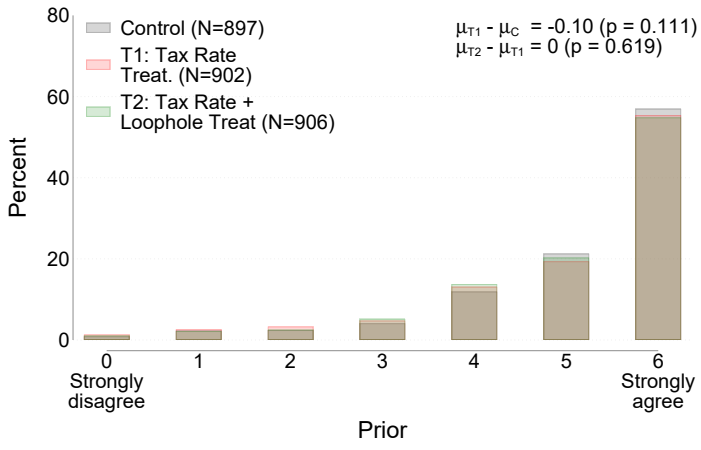
(d) Perceived Annual Earnings



(e) Perceived Billionaire Tax Rate



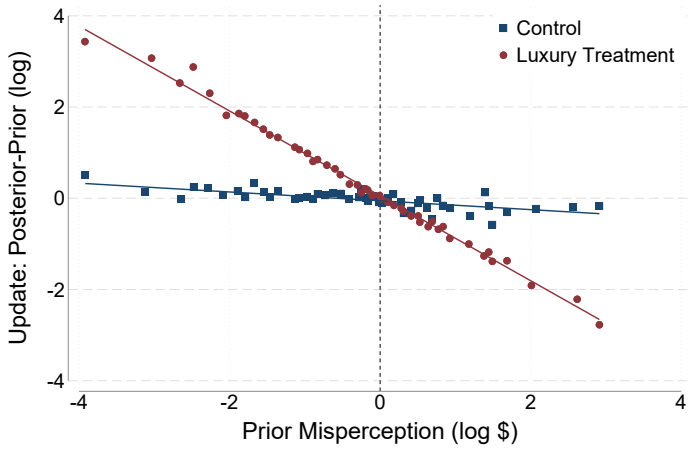
(f) Perceived Abuse of Tax Loopholes



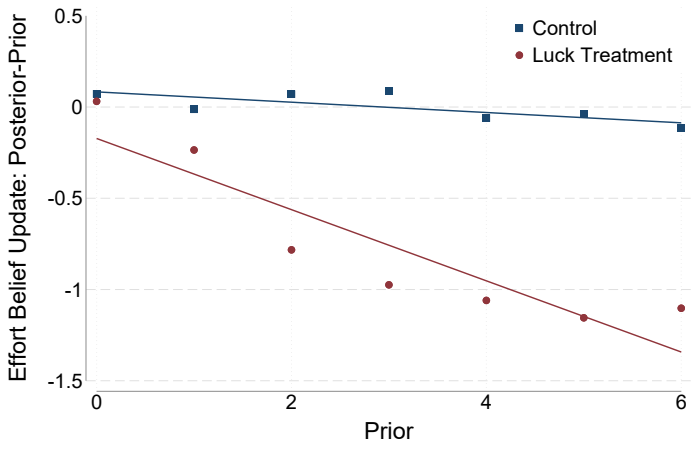
Notes: Histograms of prior beliefs in the baseline survey. Each panel represents a different treatment arm. All survey questions used to measure these beliefs are listed in Table 1. Gray bins denote subjects in the control group and red bins denote subjects in the treatment group (in panels (e) and (f), green bins correspond to subjects in the tax loophole sub-treatment). In panels (a), (c), (d), and (e), the x-axis corresponds to the difference between the subject's prior belief and the information provided in the treatment. Average priors are denoted by μ and median priors by η, with the difference p-values reported in parentheses.

Figure B.9: Belief Updating

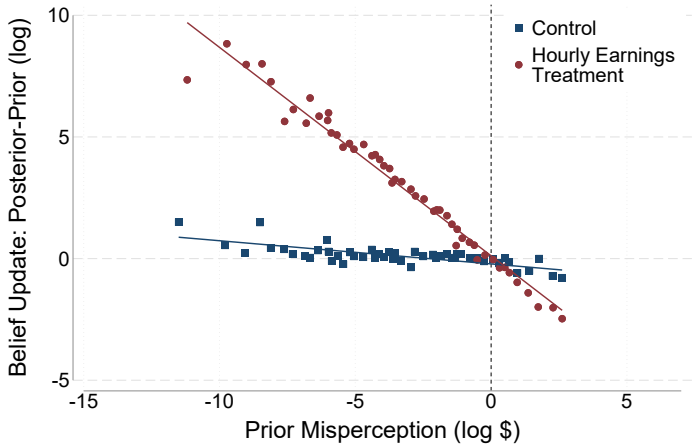
(a) Perceived Value of Billionaire's Home



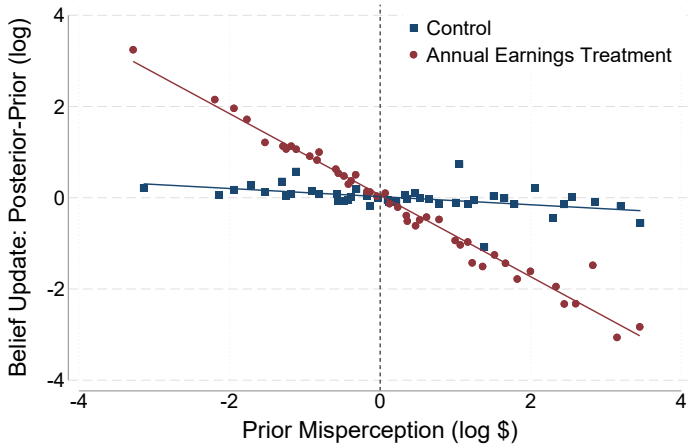
(b) Perceived Role Of Hard Work



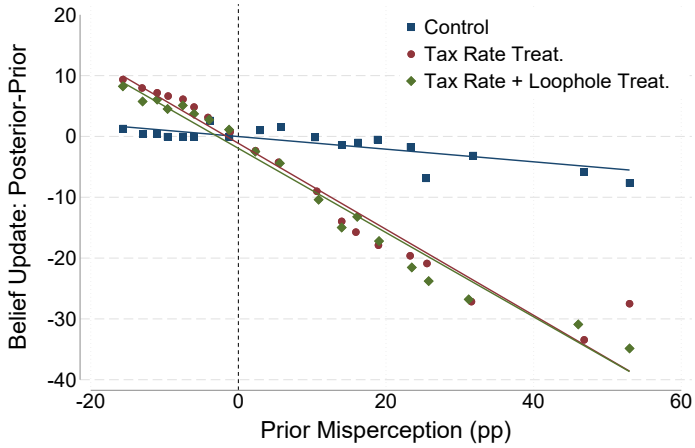
(c) Perceived Hourly Earnings



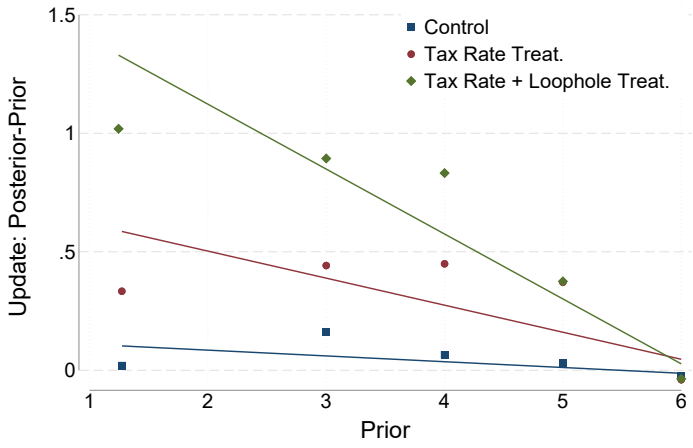
(d) Perceived Annual Earnings



(e) Perceived Billionaire Tax Rate



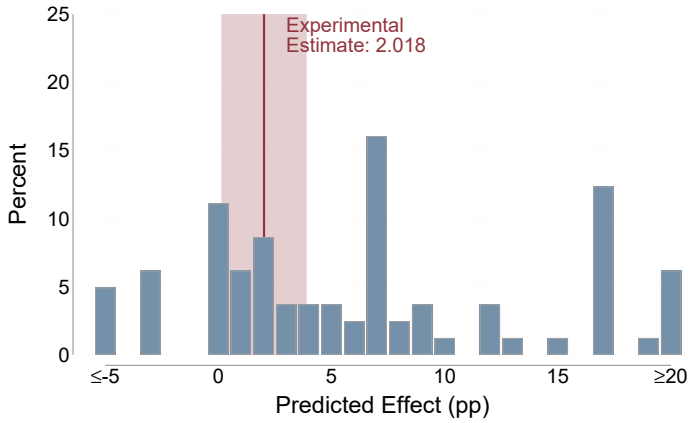
(f) Perceived Abuse of Tax Loopholes



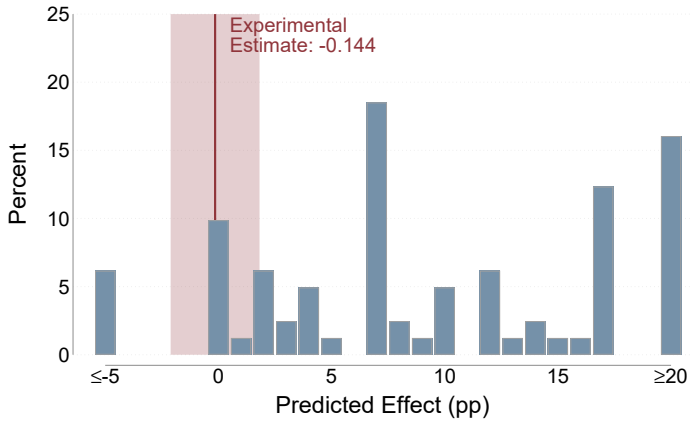
Notes: Binned scatterplots showing how subjects updated their beliefs. The survey questions are listed in Table 1. In panels (a), (c), (d), and (e), the x-axis corresponds to the difference between the subject's prior belief and the true value included in the treatment, while the y-axis shows how much subjects updated their posterior beliefs compared to their priors. The blue squares correspond to subjects who did not receive information, while the red squares represent subjects who received the information. The solid lines correspond to the best linear fit.

Figure B.10: Histogram of Predicted Treatment Effects

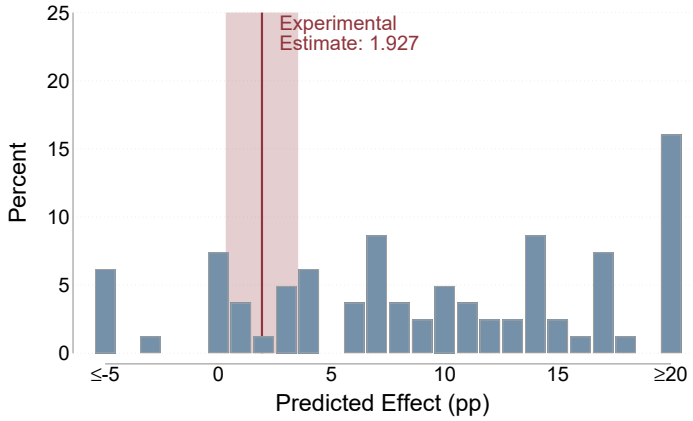
(a) Luxury Treatment



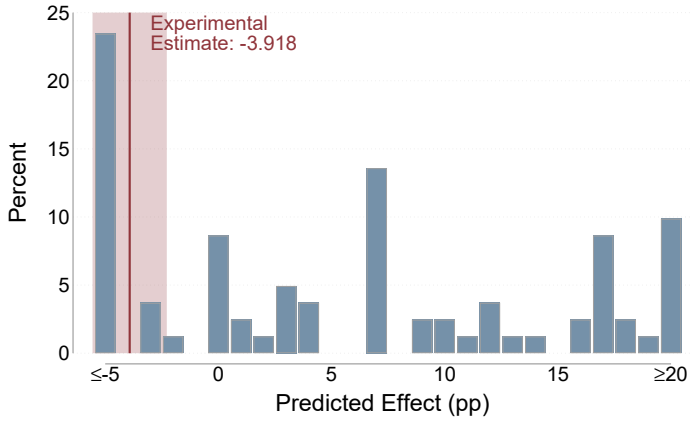
(b) Luck Treatment



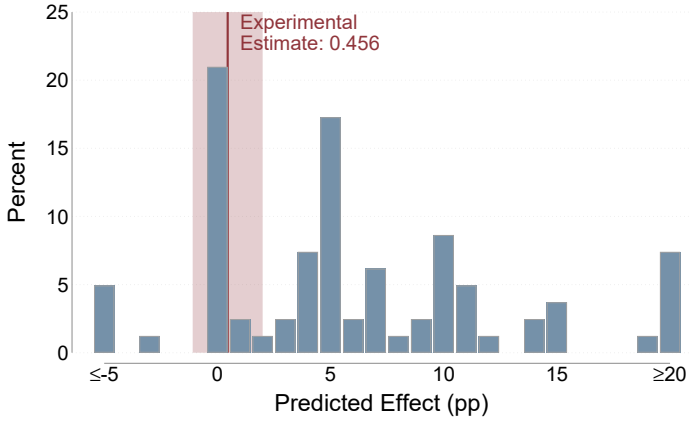
(c) Earnings Treatment



(d) Tax Rate Treatment



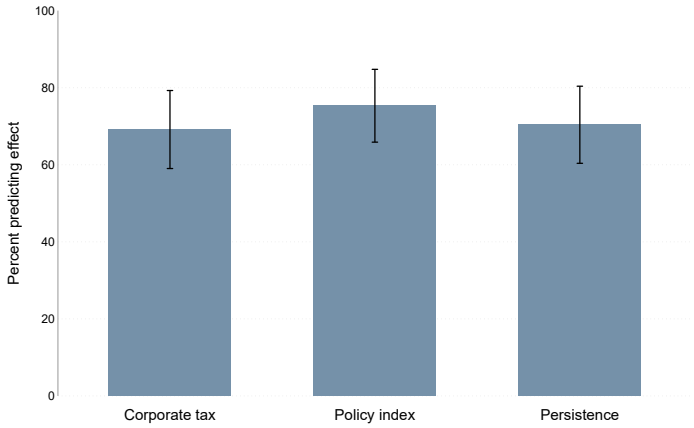
(e) Tax Loophole Treatment



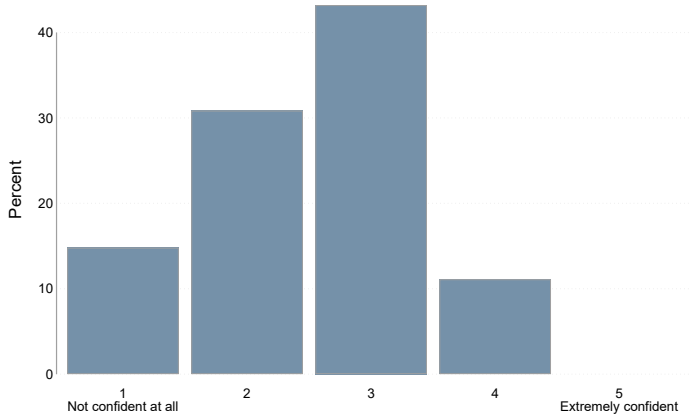
Notes: The histograms show the expert predictions for the average treatmentment effects, using data from all 81 experts. The experts predicted treatment effects on the preferred top income tax rate. Each panel corresponds to a different treatment. Panel (c) corresponds to a weighted average (according to sample sizes in the actual study) of the predicted effects of the hourly and annual earnings treatments. Panel (e) corresponds to the additional effect of seeing the additional loophole information, relative to individuals who only saw the tax rate information. The vertical red solid line corresponds to the experimental estimate reported in Table 4, and the shaded red area corresponds to the 95% confidence interval.

Figure B.11: Other Questions Included in the Forecast Survey

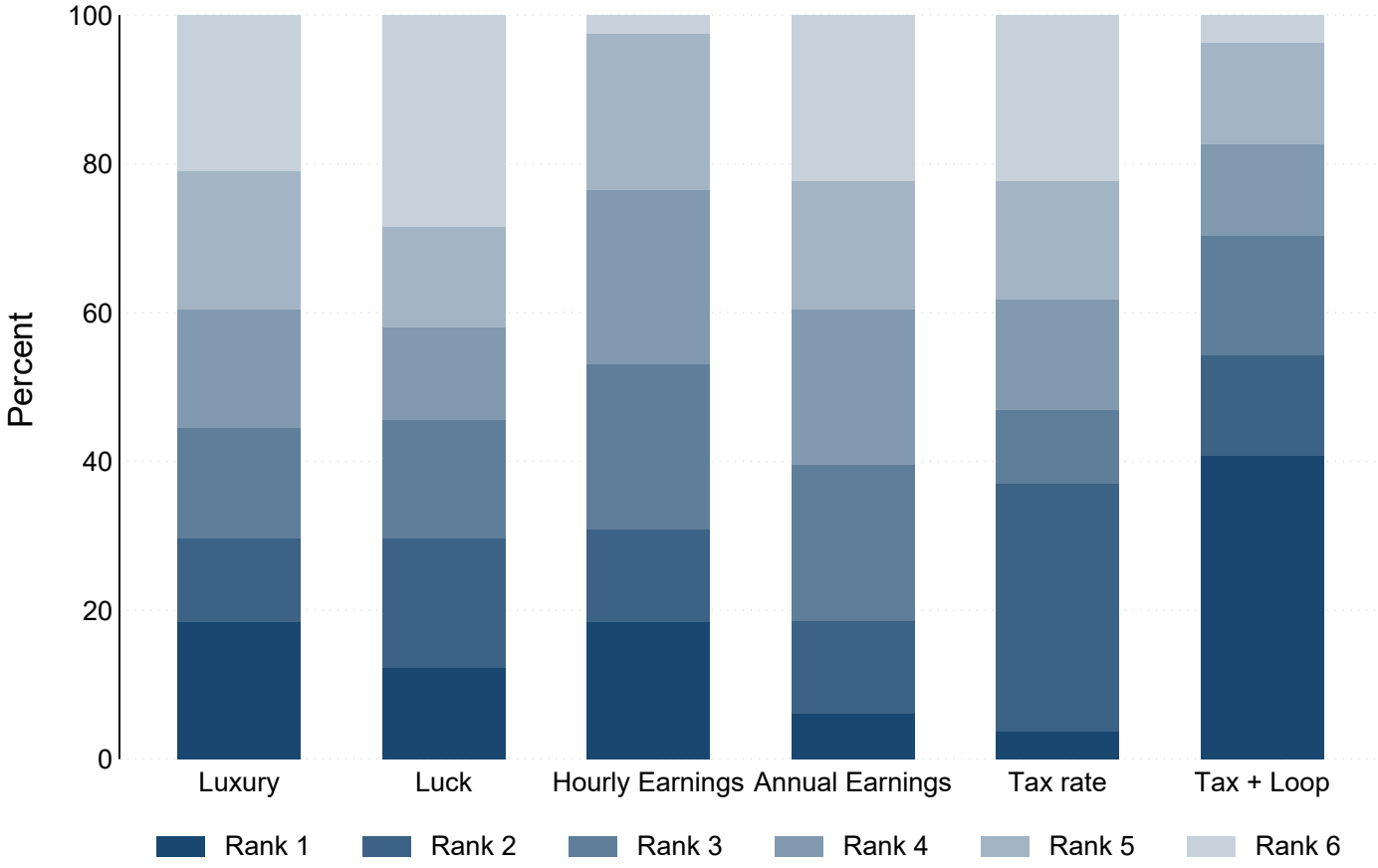
(a) Average Predicted Effects on Other Outcomes



(b) Confidence in Predictions

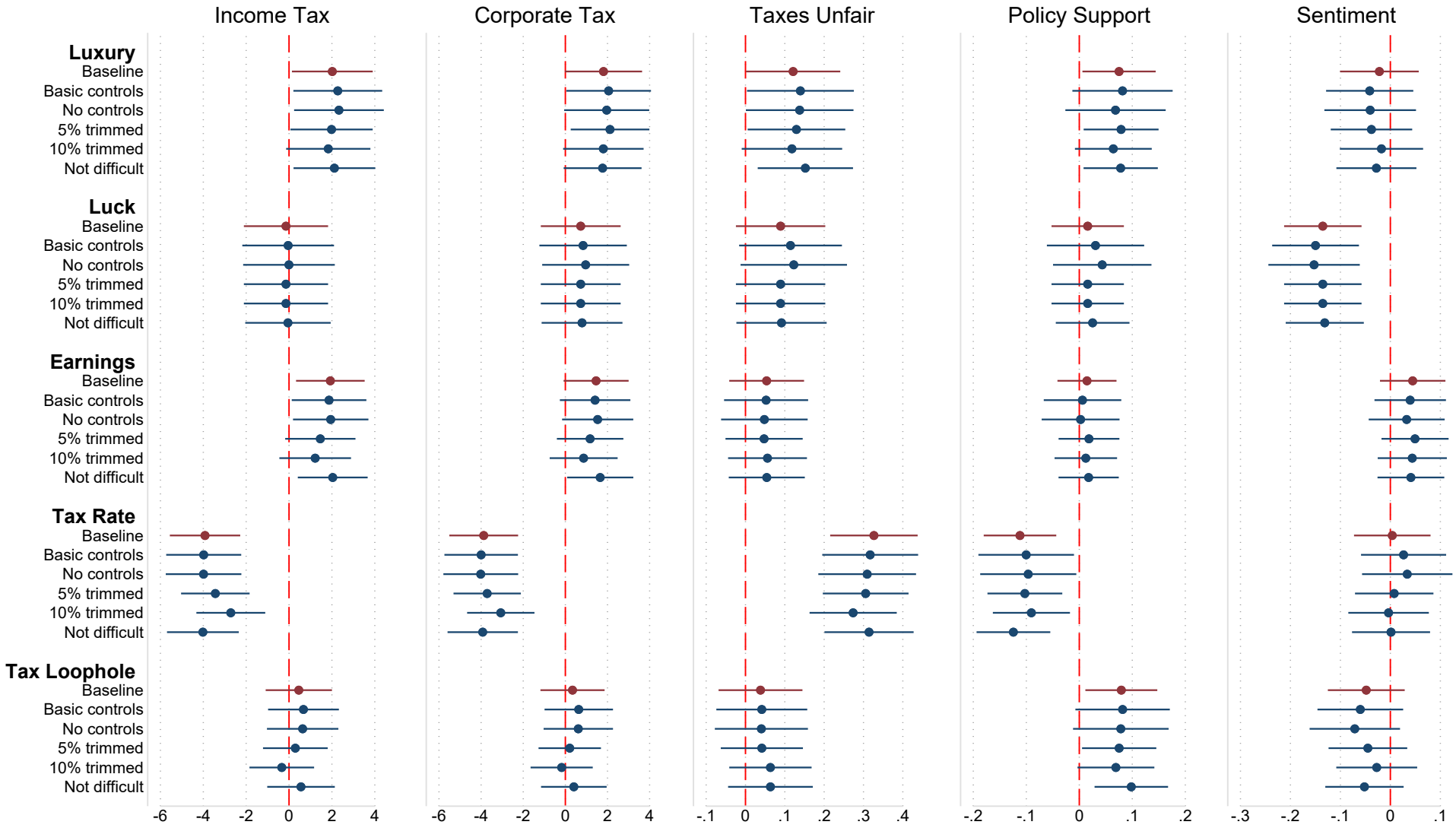


(c) Predicted Ranking of Treatments



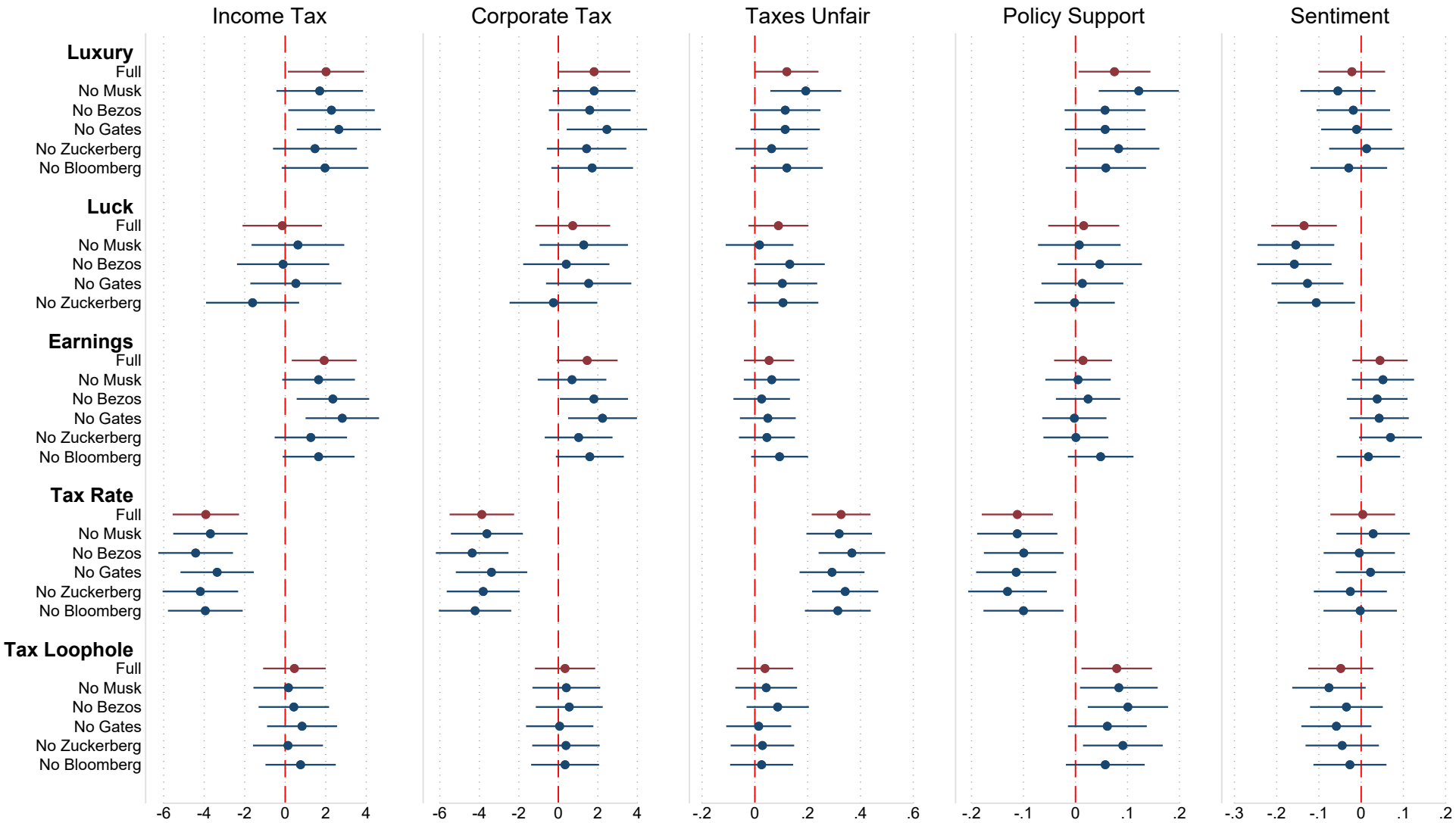
Notes: The figure shows the responses to some secondary questions included in the forecast survey. Panel (a) presents the share of experts who predicted that, given the treatment had an effect on the preferred top income tax rate, it would also: (i) affect the preferred corporate tax rate; (ii) affect the policy support; (iii) have a persistent effect in the follow-up survey. Error bars indicate the 95% confidence intervals. Panel (b) shows a histogram of the experts' confidence in their own predictions. Panel (c) presents the experts' ranking of treatments according to the strength of their effect (strongest effect = rank 1).

Figure B.12: Robustness: Alternative Specifications



Notes: The figure shows the results from Table 4 under alternative specifications. The red coefficients represent the baseline estimates reported in Table 4. The first alternative specification restricts the set of control variables to basic background characteristics of the subjects (age, gender, ethnicity, income, and education). The second alternative specification does not include any control variables. Additional robustness checks run the regressions excluding 5% and 10% of the sample based on absolute prior misperceptions in the treatments where we measure priors quantitatively (i.e., the Luxury treatment, the Earnings treatments, and the Tax Rate treatment). The final robustness check excludes subjects who found the survey difficult. Error bars indicate the 95% confidence interval.

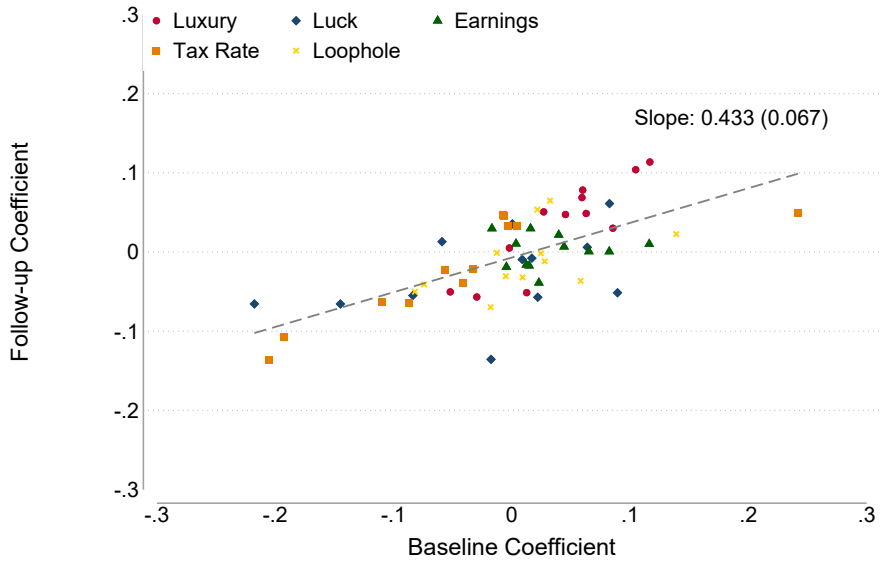
Figure B.13: Robustness: Leave-One-Billionaire-Out



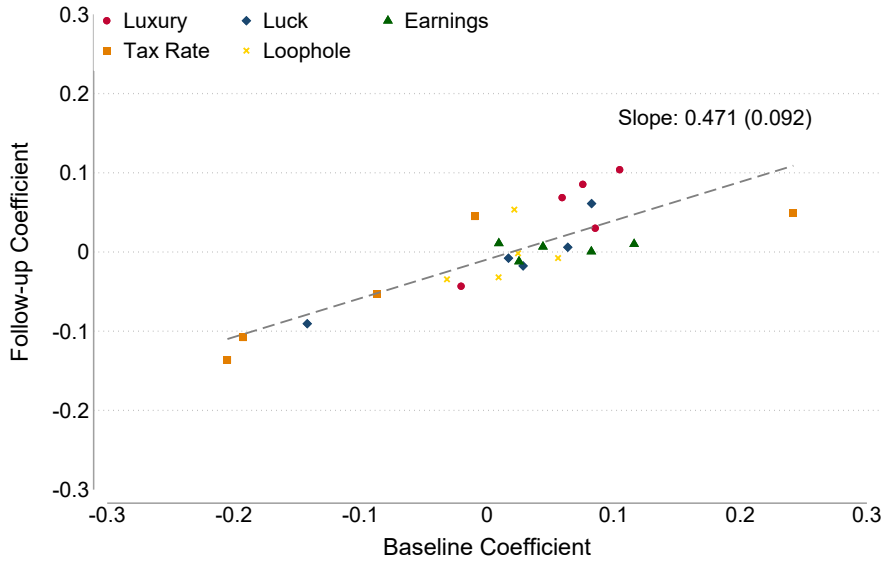
Notes: The figure shows regression coefficients from alternative specifications where we restrict the sample to four out of the five billionaires. The red coefficients represent the baseline estimates reported in Table 4. The blue coefficients are from the regressions excluding one billionaire at a time. Error bars indicate the 95% confidence interval.

Figure B.14: Robustness Checks: Persistence of the Effects

(a) Individual Outcomes



(b) Restricted Sample



Notes: The figure shows the relationship between the baseline and follow-up ATEs, similar to Figure 7. The x-axis represents the average effect of a given treatment on the baseline outcome, while the y-axis shows the corresponding effect on the follow-up outcome. All coefficients are standardized relative to the standard deviation of the outcome in the control group. Panel (a) displays the relationship between baseline and follow-up coefficients for the individual outcomes that were elicited in both the baseline and the follow-up survey. Panel (b) replicates Figure 7 but restricts the sample to subjects who participated in the follow-up survey.

Table B.1: Descriptive Statistics: Representative Benchmark vs. Our Sample

	(1) Benchmark	(2) Sample
Demographics		
Female	50.90	48.70
	(0.04)	(0.53)
Age $\leq$ 35	31.00	46.50
	(0.04)	(0.53)
White	63.30	63.40
	(0.04)	(0.51)
Black	11.90	15.30
	(0.03)	(0.38)
Asian	6.30	10.20
	(0.02)	(0.32)
Hispanic	17.20	7.50
	(0.03)	(0.28)
Socioeconomic Status		
Income > 50k	72.80	65.20
	(0.04)	(0.50)
College degree	41.50	68.90
	(0.04)	(0.49)
Political Attitudes		
Democrat	34.90	49.70
	(0.72)	(0.53)
Republican	31.60	18.50
	(0.69)	(0.41)
Independent	33.50	31.80
	(0.70)	(0.49)

Notes: The table compares the background characteristics of the experimental sample to a benchmark representative of the U.S. general population. Data on demographics and socioeconomic status for the representative benchmark are taken from the American Community Survey of 2022. Data on political attitudes are taken from the American National Election Studies of 2020. Standard errors are reported in parentheses.

Table B.2: Descriptive Statistics and Randomization Balance for the Follow-Up Sample

		Luxury Arm			Luck Arm			Earnings Arms			Tax Arm			
	(1) Full	(2) Control	(3) Treat.	(4) p-value	(5) Control	(6) Treat.	(7) p-value	(8) Control	(9) Treat.	(10) p-value	(11) Control	(12) Treat. I	(13) Treat. II	(14) p-value
Female	48.5	47.9	48.0	0.962	47.4	46.9	0.833	50.6	48.7	0.372	47.5	49.2	48.9	0.783
	(50.0)	(50.0)	(50.0)		(50.0)	(49.9)		(50.0)	(50.0)		(50.0)	(50.0)	(50.0)	
Age $\leq$ 35	44.4	44.4	41.9	0.338	44.4	44.7	0.903	43.3	47.6	0.042	44.5	44.0	43.6	0.947
	(49.7)	(49.7)	(49.4)		(49.7)	(49.8)		(49.6)	(50.0)		(49.7)	(49.7)	(49.6)	
White	64.4	62.6	65.9	0.183	64.3	63.1	0.607	65.1	65.8	0.721	63.2	63.4	65.5	0.589
	(47.9)	(48.4)	(47.4)		(47.9)	(48.3)		(47.7)	(47.5)		(48.3)	(48.2)	(47.6)	
Black	14.5	15.3	13.1	0.222	13.9	14.6	0.714	14.7	14.5	0.895	13.7	15.6	15.1	0.556
	(35.2)	(36.1)	(33.8)		(34.7)	(35.3)		(35.4)	(35.2)		(34.4)	(36.3)	(35.8)	
Asian	10.2	10.6	10.7	0.971	9.4	12.0	0.093	10.0	9.9	0.920	9.8	10.2	9.7	0.951
	(30.3)	(30.8)	(30.9)		(29.2)	(32.6)		(30.0)	(29.9)		(29.7)	(30.3)	(29.7)	
Hispanic	7.4	7.4	7.2	0.865	8.1	6.8	0.356	7.4	7.3	0.994	8.4	7.9	5.6	0.077
	(26.1)	(26.2)	(25.8)		(27.3)	(25.2)		(26.1)	(26.1)		(27.8)	(27.0)	(23.1)	
Income > 50k	65.5	64.3	65.4	0.680	65.5	62.5	0.228	64.9	65.0	0.968	65.7	68.9	68.2	0.378
	(47.5)	(47.9)	(47.6)		(47.6)	(48.4)		(47.7)	(47.7)		(47.5)	(46.3)	(46.6)	
College degree	69.4	70.8	68.6	0.360	69.7	69.3	0.893	69.0	68.4	0.745	68.9	70.9	69.2	0.667
	(46.1)	(45.5)	(46.4)		(46.0)	(46.1)		(46.3)	(46.5)		(46.3)	(45.5)	(46.2)	
Democrat	49.7	50.5	49.3	0.640	45.8	51.0	0.044	50.7	50.0	0.770	47.9	52.4	48.7	0.183
	(50.0)	(50.0)	(50.0)		(49.9)	(50.0)		(50.0)	(50.0)		(50.0)	(50.0)	(50.0)	
Republican	18.9	19.0	18.3	0.726	21.5	18.7	0.183	18.0	17.9	0.941	19.1	18.3	20.3	0.601
	(39.2)	(39.2)	(38.7)		(41.1)	(39.1)		(38.4)	(38.3)		(39.4)	(38.7)	(40.3)	
Independent	31.4	30.6	32.5	0.426	32.7	30.3	0.309	31.4	32.1	0.708	33.0	29.4	30.9	0.323
	(46.4)	(46.1)	(46.9)		(46.9)	(46.0)		(46.4)	(46.7)		(47.0)	(45.6)	(46.3)	
Redistribution Attitudes	5.6	5.5	5.6	0.306	5.6	5.7	0.375	5.7	5.7	0.851	5.5	5.6	5.6	0.886
	(2.8)	(2.7)	(2.8)		(2.8)	(2.7)		(2.8)	(2.8)		(2.8)	(2.7)	(2.8)	
Trust in Federal Government.	1.1	1.1	1.1	0.211	1.1	1.1	0.729	1.1	1.0	0.720	1.0	1.1	1.1	0.550
	(0.7)	(0.7)	(0.7)		(0.7)	(0.7)		(0.7)	(0.7)		(0.7)	(0.7)	(0.7)	
Observations	7,430	743	739		768	747		1,129	1,103		737	756	708	

Notes: This table reports information on the characteristics of the subjects who participated in the follow-up study. Column (1) corresponds to the full sample, columns (2)–(4) correspond to the Luxury treatment arm, columns (5)–(7) correspond to the Luck treatment arm, columns (8)–(10) correspond to the Earnings treatment arm, and columns (11)–(14) correspond to the Tax Rate treatment arm. Treatment I corresponds to the Tax Rate treatment and Treatment II to the Tax Rate + Loophole treatment. Columns (4), (7), and (10) report the p-values of tests for equal means between the treatment and control groups. Column (14) reports the p-value of an F-test for equal means across the two treatments and the control group. Standard errors are reported in parentheses.

Table B.3: Average Treatment Effects on Individual Outcomes

	Taxation Attitudes			Policy Support						Sentiment				
	(1) Inc. Tax	(2) Corp. Tax	(3) Tax unfair	(4) Prop. min.	(5) Prop. corp.	(6) Prop. extr.	(7) Prop. IRS	(8) Donation	(9) Petition	(10) Deserving	(11) Resepct	(12) Trust	(13) Comp. perc.	(14) WTP
Luxury	2.018**	1.812*	0.121**	0.080	0.093	0.120*	0.051	11.107**	0.010	-0.117	0.058	-0.001	-0.054	-0.102
	(0.961)	(0.934)	(0.061)	(0.069)	(0.068)	(0.070)	(0.071)	(4.321)	(0.021)	(0.079)	(0.119)	(0.067)	(0.116)	(0.200)
Luck	-0.144	0.730	0.089	-0.004	0.136**	-0.003	-0.011	-4.305	0.021	-0.380***	-0.355***	-0.055	-0.251**	-0.292
	(1.001)	(0.967)	(0.058)	(0.070)	(0.066)	(0.069)	(0.069)	(4.431)	(0.021)	(0.079)	(0.119)	(0.066)	(0.114)	(0.192)
Earnings	1.927**	1.460*	0.054	0.031	0.049	-0.025	-0.010	6.226*	-0.013	0.068	0.121	0.035	0.059	0.208
	(0.816)	(0.787)	(0.049)	(0.056)	(0.055)	(0.057)	(0.059)	(3.558)	(0.017)	(0.067)	(0.101)	(0.056)	(0.094)	(0.163)
Tax rate	-3.918***	-3.875***	0.327***	-0.104	-0.166**	-0.138*	-0.153**	-7.008	-0.049**	0.017	0.029	0.014	0.016	-0.079
	(0.837)	(0.833)	(0.057)	(0.068)	(0.072)	(0.071)	(0.070)	(4.380)	(0.021)	(0.080)	(0.115)	(0.066)	(0.113)	(0.190)
Tax loophole	0.456	0.340	0.038	0.151**	0.230***	0.039	0.040	6.164	0.011	-0.174**	-0.066	-0.174***	-0.017	0.182
	(0.788)	(0.777)	(0.054)	(0.068)	(0.070)	(0.070)	(0.071)	(4.369)	(0.021)	(0.080)	(0.118)	(0.064)	(0.113)	(0.192)
Baseline Mean	42.52	39.80	4.62	4.50	4.34	4.52	4.43	152.21	0.60	3.29	4.51	2.01	5.21	2.31
Baseline SD	22.34	21.63	1.48	1.79	1.70	1.74	1.78	98.85	0.49	2.00	2.89	1.60	2.71	4.21

Notes: This table reports OLS estimates similar as in Table 4, but for the individual outcomes instead of the Policy and Sentiment indices. The baseline mean and standard deviation from the control group are presented at the bottom of the table. Significant at *10%, **5%, ***1%. Robust standard errors are in parentheses. Number of observations: Luxury treatment arm = 1,812; Luck treatment arm = 1,806; Earnings treatment arm = 2,690; Tax Rate treatment arm = 2,705.

Table B.4: Average Treatment Effects for Earnings Sub-Treatments

	(1) Income tax rate	(2) Corporate tax rate	(3) Taxes unfair	(4) Policy Index	(5) Sentiment Index	(6) N
Hourly Earnings	1.321	0.948	0.049	-0.001	0.056	1,790
	(1.011)	(0.974)	(0.059)	(0.035)	(0.041)	
Annual Earnings	2.787*	2.236	0.086	0.042	0.020	900
	(1.420)	(1.371)	(0.087)	(0.050)	(0.059)	
Diff. p-value	0.389	0.433	0.722	0.471	0.606	
Baseline Mean	42.52	39.80	4.62	0.00	0.00	
Baseline SD	22.34	21.63	1.48	1.00	1.00	

Notes: This table reports OLS estimates similar as in Table 4 for the two Earnings sub-treatments separately. The baseline mean and standard deviation from the control group are presented at the bottom of the table. Significant at *10%, **5%, ***1%. Robust standard errors are in parentheses.

Table B.5: Heterogeneity by Prior Beliefs

	(1) Income tax rate	(2) Corporate tax rate	(3) Taxes unfair	(4) Policy Index	(5) Sentiment Index	(6) N
Luxury						
Feedback > prior	1.651	1.505	0.192**	0.037	-0.045	1,035
	(1.232)	(1.189)	(0.084)	(0.047)	(0.052)	
Feedback ≤ prior	2.437	2.426	0.064	0.134**	-0.014	777
	(1.585)	(1.573)	(0.093)	(0.054)	(0.063)	
Diff. p-value	0.687	0.631	0.289	0.163	0.692	
Luck						
4 > prior	-0.410	1.645	0.001	0.000	-0.069	707
	(1.701)	(1.638)	(0.075)	(0.054)	(0.051)	
4 ≤ prior	0.054	0.160	0.152*	0.030	-0.191***	1,099
	(1.194)	(1.158)	(0.078)	(0.046)	(0.045)	
Diff. p-value	0.818	0.445	0.152	0.661	0.062	
Earnings						
Feedback > prior	1.033	0.788	0.062	0.020	0.086**	1,941
	(0.957)	(0.919)	(0.057)	(0.034)	(0.039)	
Feedback ≤ prior	4.097**	3.078*	0.054	0.002	-0.058	749
	(1.631)	(1.582)	(0.095)	(0.054)	(0.065)	
Diff. p-value	0.095	0.197	0.941	0.774	0.052	
Tax rate						
Feedback > prior	-1.860	-2.640**	-0.006	-0.183***	0.049	1,272
	(1.212)	(1.190)	(0.066)	(0.051)	(0.056)	
Feedback ≤ prior	-5.680***	-4.914***	0.612***	-0.048	-0.034	1,433
	(1.142)	(1.149)	(0.083)	(0.048)	(0.052)	
Diff. p-value	0.019	0.161	<0.001	0.049	0.265	
Tax loophole						
6 > prior	-0.099	0.398	0.063	0.074	0.030	1,197
	(1.112)	(1.108)	(0.095)	(0.051)	(0.053)	
6 ≤ prior	0.925	0.249	0.045	0.087**	-0.120**	1,508
	(1.114)	(1.084)	(0.046)	(0.043)	(0.053)	
Diff. p-value	0.507	0.922	0.862	0.844	0.041	

Notes: This table reports OLS estimates similar as in Table 4, splitting the sample according to subjects' prior beliefs. We also report the p-value of the test comparing the coefficients of the two sub-samples. Significant at *10%, **5%, ***1%. Robust standard errors are in parentheses.

Table B.6: Heterogeneity by Political Affiliation

	(1) Income tax rate	(2) Corporate tax rate	(3) Taxes unfair	(4) Policy Index	(5) Sentiment Index	(6) N
Luxury						
Democrat	1.497	1.658	0.124*	0.054	-0.047	1,179
	(1.220)	(1.203)	(0.070)	(0.037)	(0.050)	
Republican + Independent	2.922*	2.244	0.163	0.125*	0.004	633
	(1.592)	(1.528)	(0.114)	(0.068)	(0.068)	
Diff. p-value	0.464	0.756	0.761	0.345	0.526	
Luck						
Democrat	0.124	0.927	0.034	-0.024	-0.126**	1,127
	(1.289)	(1.257)	(0.066)	(0.036)	(0.049)	
Republican + Independent	-0.638	0.471	0.164	0.064	-0.141**	679
	(1.662)	(1.550)	(0.108)	(0.067)	(0.068)	
Diff. p-value	0.709	0.814	0.288	0.235	0.862	
Earnings						
Democrat	2.214**	2.218**	0.073	0.033	0.035	1,797
	(1.025)	(0.993)	(0.055)	(0.029)	(0.040)	
Republican + Independent	1.045	-0.355	-0.007	-0.035	0.084	893
	(1.357)	(1.317)	(0.094)	(0.059)	(0.059)	
Diff. p-value	0.482	0.111	0.452	0.289	0.486	
Tax rate						
Democrat	-3.948***	-3.642***	0.301***	-0.120***	0.053	1,762
	(1.067)	(1.047)	(0.061)	(0.036)	(0.048)	
Republican + Independent	-3.875***	-4.035***	0.375***	-0.105	-0.092	943
	(1.342)	(1.396)	(0.116)	(0.071)	(0.067)	
Diff. p-value	0.965	0.817	0.567	0.851	0.072	
Tax loophole						
Democrat	-0.260	-0.487	0.050	0.107***	-0.083*	
	(1.007)	(0.984)	(0.057)	(0.037)	(0.049)	
Republican + Independent	1.988	1.699	0.046	0.091	0.010	
	(1.265)	(1.291)	(0.112)	(0.069)	(0.067)	
Diff. p-value	0.156	0.169	0.975	0.833	0.249	

Notes: This table reports OLS estimates similar as in Table 4, splitting the sample according to subjects' political affiliation. We also report the p-value of the test comparing the coefficients of the two sub-samples. Significant at *10%, **5%, ***1%. Robust standard errors are in parentheses.

C Baseline: Survey Instrument

Berkeley
UNIVERSITY OF CALIFORNIA

The study is being conducted by a team of academic researchers. This survey takes about 10 minutes. For your participation, you will receive a compensation of $2.

Key Information

- You are being invited to participate in a research study. Participation in research is completely voluntary.
- The purpose of the study is to study public opinion.
- The survey takes about 10 minutes.
- We do not anticipate any risks and/or discomforts from participating in this study.
- The results from the study may be shared in an aggregated form and will help understanding the formation of public

● **I accept to participate in this study.**

○ I do not accept to participate in this study.



What is your Prolific ID?

Please note that this response should auto-fill with the correct ID.

Berkeley
UNIVERSITY OF CALIFORNIA

This survey includes questions about public figures. Please indicate your familiarity with the individuals listed below.

	I have never heard of this person before.	I have heard of this person, but I don't know anything about them.	I have heard of this person, and I know at least a bit about them.
Gabby Barrett	○	○	○
Elon Musk	○	○	○
LeBron James	○	○	○
Taylor Swift	○	○	○
D'Angelo Russell	○	○	○

We are now going to ask you a question about Elon Musk. Elon Musk is an American billionaire and one of the richest people in the world. He is an entrepreneur who is famous for starting the company Tesla.





Treatment Arm: Hourly Earnings (Prior)



The typical American between 45 and 54 years old has an annual income of $64,000.*

One year has 8,760 hours. So if we divide the annual income by the number of hours in a year, we find that **the average person earns approximately $7 per hour.**

Now imagine we were to divide Elon Musk's annual income by the number of hours in a year.

How much do you think Elon Musk earns per hour?

$ _____ per hour

*Source: Forbes, 2023



In the following screen, a group of survey respondents will be randomly chosen to receive some information related to the previous question.

Please continue to the next screen to find out if you have been selected to receive the information.

Control Group



You have not been randomly selected to receive the information. Please continue with the survey.

Treatment Arm: Hourly Earnings (Information)

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You have been randomly selected to receive the following information:

Elon Musk's earnings have significantly increased since he became a billionaire in 2012.

Between 2012 and 2023, his wealth has grown from around $2 billion to $180 billion.

This means that, on average, Elon Musk has earned about $16.18 billion per year during this period.

If we divide this yearly amount by the number of hours in a year, it means **Elon Musk has earned about $1,847,000 per hour** during this time.

Source: Forbes, 2023.

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Previously, we asked you a question about Elon Musk. Now, we will ask you this question again. We re-ask this question to every participant in the survey, regardless of their response or whether they received any information.

Treatment Arm: Hourly Earnings (Posterior)

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The typical American between 45 and 54 years old has an annual income of $64,000.*

One year has 8,760 hours. So if we divide the annual income by the number of hours in a year, we find that **the average person earns approximately $7 per hour.**

Now imagine we were to divide Elon Musk's annual income by the number of hours in a year.

How much do you think Elon Musk earns per hour?

$ _____ per hour

*Source: Forbes, 2023

Treatment Arm: Annual Earnings (Prior)



The typical American between 45 and 54 years old has an annual income of $64,000.*

Now think of the annual income of Elon Musk.

How much do you think Elon Musk earns per year? (in billions of USD)

$ [ ] billion per year

*Source: Forbes, 2023

Treatment Arm: Annual Earnings (Information)

Berkeley
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You have been randomly selected to receive the following information:

Elon Musk's earnings have significantly increased since he became a billionaire in 2012.

Between 2012 and 2023, his wealth has grown from around $2 billion to $180 billion.

This means that, on average, **Elon Musk has earned about $16.18 billion per year** during this period.

Source: Forbes, 2023.

Treatment Arm: Annual Earnings (Posterior)

Berkeley
UNIVERSITY OF CALIFORNIA

The typical American between 45 and 54 years old has an annual income of $64,000.*

Now think of the annual income of Elon Musk.

How much do you think Elon Musk earns per year? (in billions of USD)

$ [ ] billion per year

*Source: Forbes, 2023

Treatment Arm: Tax Rate (Prior)



The total tax rate is the overall percentage of an individual's income that is paid in taxes to the government. It considers various types of taxes, such as income tax, capital gains tax, payroll tax, and any other applicable taxes.

A single American worker who earns $45,000 per year has a total tax rate of 21% on average.*

What do you think is the total tax rate paid by Elon Musk?

Use the slider to indicate your answer, ranging from 0% to 100%.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

*Source: ProPublica (2022)

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Please indicate to what extent you disagree or agree with the following statement:

"Billionaires abuse loopholes in the tax code to avoid paying taxes."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○

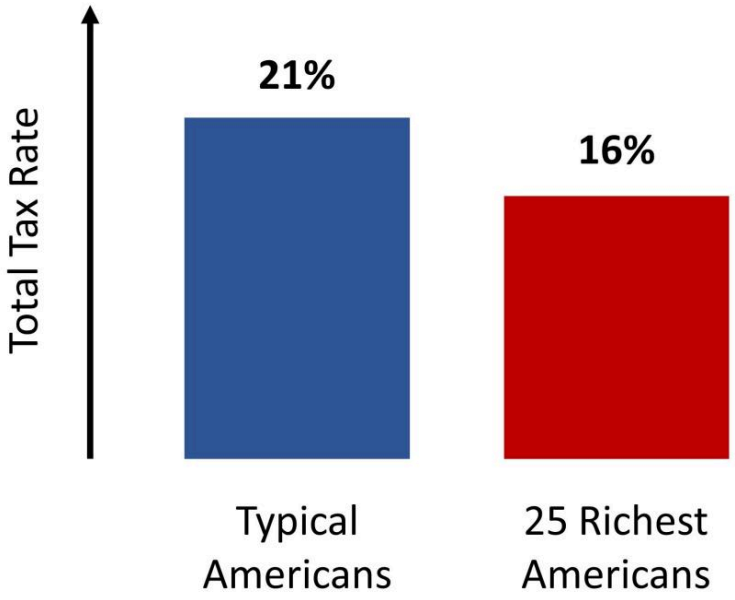
Treatment Arm: Tax Rate (Information)

Berkeley
UNIVERSITY OF CALIFORNIA

You have been randomly selected to receive the following information:

A single American worker who earns $45,000 per year has a total tax rate of 21% on average.

Elon Musk is one of the 25 richest Americans by net worth. Recent research has shown that **people in this group have a total tax rate of 16% on average**.



Source: ProPublica, 2022

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According to some accounts, billionaires manage to pay even lower tax rates through a variety of accounting strategies.

Billionaires often get paid in stocks.

Billionaires do not need to pay taxes on the stocks they hold until they sell it. By refraining from selling their stocks, billionaires can avoid generating taxable income. Instead, billionaires can access their wealth by borrowing against their stocks, which does not incur taxes.



Billionaires set up smaller companies in tax havens.

Billionaires can transfer the profits of their companies to these smaller companies, which pay very little or no taxes. A recent study revealed that U.S. multinational companies moved over half of their foreign profits to low-tax countries, leading to an estimated loss of around $50 billion in tax revenue for the US government.



Sources: ProPublica, 2021, Tørsløv, Wier, Zucman (2023)

Treatment Arm: Tax Rate (Posterior)



The total tax rate is the overall percentage of an individual's income that is paid in taxes to the government. It considers various types of taxes, such as income tax, capital gains tax, payroll tax, and any other applicable taxes.

A single American worker who earns $45,000 per year has a total tax rate of 21% on average.*

What do you think is the total tax rate paid by Elon Musk?

Use the slider to indicate your answer, ranging from 0% to 100%.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Source: ProPublica (2022)

Berkeley
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Please indicate to what extent you disagree or agree with the following statement:

"Billionaires abuse loopholes in the tax code to avoid paying taxes."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○

Treatment Arm: Luxury (Prior)

Berkeley
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Elon Musk owns a residence in Austin, Texas.

How much do you think this property is worth? (in million USD)

$ [ ] million

Treatment Arm: Luxury (Information)

Berkeley
UNIVERSITY OF CALIFORNIA

You have been randomly selected to receive the following information:

According to some accounts, **Elon Musk is living in an Austin mansion worth $12 million**. "Musk has been living in a nearly 8,000-square-foot estate owned by Howery, the co-founder of PayPal and former U.S. ambassador to Sweden — when Howery bought it in 2018 for $12 million, it was the most expensive property then on the market in Austin."



Source: Forbes

Treatment Arm: Luxury (Posterior)

Berkeley
UNIVERSITY OF CALIFORNIA

Elon Musk owns a residence in Austin, Texas.

How much do you think this property is worth? (in million USD)

$ [ ] million

Treatment Arm: Luck (Prior)

Berkeley
UNIVERSITY OF CALIFORNIA

Please indicate to what extent you disagree or agree with the following statement:

"Elon Musk earned his wealth through honest and hard work."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○

Treatment Arm: Luck (Information)

Berkeley
UNIVERSITY OF CALIFORNIA

You have been randomly selected to receive the following information:

Contrary to popular belief, Elon Musk did not start Tesla.

Tesla was founded in 2003 by Martin Eberhard and Marc Tarpenning. When the initial founders of Tesla went looking for venture capital funding in 2004, Elon Musk contributed $6.5 million of the initial round of investment and became chairman of the board of directors. The two initial founders, Eberhard and Tarpenning, left Tesla in 2007 and 2008, respectively, and Musk became the CEO of Tesla in 2008. In 2009, Eberhard sued Musk for calling himself a founder of Tesla, but the suit was settled in an agreement that also allows Musk to refer to himself as a co-founder.



Source: Business Insider; Yahoo Finance

Treatment Arm: Luck (Posterior)

Berkeley
UNIVERSITY OF CALIFORNIA

Please indicate to what extent you disagree or agree with the following statement:

"Elon Musk earned his wealth through honest and hard work."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○

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In the following questions, we are interested in your opinion, so **there are no right or wrong answers.**

Imagine that the US government is considering introducing a new personal income tax rate specifically targeting incomes exceeding $10 million.

This tax rate would apply to all billionaires, including individuals like Elon Musk.

If you were given the authority to determine the federal top income tax rate for incomes exceeding $10 million, what rate would you choose?

Please use the slider to indicate your answer, ranging from 0% to 100%.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

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The corporate tax rate is the percentage of profits that US companies pay in taxes to the government.

Imagine that the US government is considering introducing a new corporate tax rate specifically for companies that make profits exceeding $10 million.

This new corporate tax rate would apply to large businesses such as Tesla.

If you were given the authority to determine the federal top corporate tax rate (for company profits exceeding $10 million), what rate would you choose?

Please use the slider to indicate your answer, ranging from 0% to 100%.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

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From a perspective of fairness, do you think the taxes paid by Elon Musk are too high, appropriate, or too low?

Very low ○ Moderately low ○ Slightly low ○ Appropriate ○ Slightly high ○ Moderately high ○

Very high ○

Please indicate to what extent you disagree or agree with this statement:

"Elon Musk deserves the wealth he has."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○

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To what extent do you believe Elon Musk is trustworthy?

Very untrustworthy ○ Moderately untrustworthy ○ Slightly untrustworthy ○

Neither trustworthy nor untrustworthy ○ Slightly trustworthy ○ Moderately trustworthy ○

Very trustworthy ○

How would you rate your feelings towards Elon Musk on a scale of 0 to 10, where 0 represents no admiration and respect at all, and 10 stands for full admiration and respect?

No admiration and respect — Full admiration and respect

0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○

How would you rate your overall perception of Tesla on a scale of 0 to 10, where 0 is extremely negative and 10 is extremely positive?

Extremely negative — Extremely positive

0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○

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In the following screens, we will ask about your opinions on real-world policy proposals.

For each of these proposals, please indicate how strongly you support or oppose them.

At the study's conclusion, we will share the anonymous survey results with politicians and organizations relevant to these issues. **Please consider your responses carefully, as they may significantly influence policy decisions.**

Rest assured that your answers will remain completely anonymous, consistent with all other responses in this survey.

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President Biden is proposing a new law called the "Billionaire Minimum Income Tax," which would require the **wealthiest American households to pay a minimum of 20% of their total income in taxes.**

This proposal includes incomes from investments, even if the gains have not been realized yet and are currently not subject to taxation. By including investment incomes in the tax calculation, the policy aims to address potential loopholes that have allowed some billionaires to minimize their tax liabilities.

For more information, see: White House, 2022

Do you oppose or support this proposal?

Strongly oppose	Moderately oppose	Slightly oppose	Neither support nor oppose
○	○	○	○

Slightly support	Moderately support	Strongly support
○	○	○

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A group of academic researchers has presented a proposal for a **new international tax targeting corporations and large businesses**.

According to this proposal, big companies would be obligated to pay a tax amounting to 0.2% of their market value, which is the total value of all their stocks, at the end of the year.

This tax is similar to a wealth tax for the rich because it recognizes that stock ownership is largely concentrated among billionaires and other wealthy individuals.

For more information, see: Saez and Zucman, 2022

Do you oppose or support this proposal?

Strongly oppose	Moderately oppose	Slightly oppose	Neither support nor oppose
○	○	○	○

Slightly support	Moderately support	Strongly support
○	○	○

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A group of academic researchers is proposing a new tax named the **California Tax on Extreme Wealth**.

This tax would apply to very wealthy individuals in the state, and here's how it would work:

- People with wealth over $50 million would pay 1% of their wealth as a yearly tax.
- Additionally, billionaires would pay an extra 0.5% on the amount above $1 billion.

The researchers estimate that in California, this tax could yield about $22.3 billion annually, with half of the revenue coming from the state's billionaires.

For more information, see: Galle, Gamage, Saez, Shanske, 2021

Would you oppose or support a similar policy in your state?

Strongly oppose	Moderately oppose	Slightly oppose	Neither support nor oppose
○	○	○	○

Slightly support	Moderately support	Strongly support
○	○	○

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The Internal Revenue Service (IRS) is a government agency responsible for collecting taxes in the United States. Recently, a **new law** called the Inflation Reduction Act **allocated $80 billion in funding to the IRS.**

With this funding, the **IRS plans to strengthen tax enforcement to address a problem known as the "tax gap."**

The tax gap refers to the difference between the amount of taxes people should pay and what they actually pay. According to the IRS, some billionaires and other wealthy individuals are not paying their fair share of taxes, and the IRS aims to tackle this issue. By enhancing tax enforcement, the IRS hopes to ensure that everyone pays the taxes they owe.

For more information, see: CNBC, 2023

Do you oppose or support this new law that allocates additional funding to the IRS?

Strongly oppose	Moderately oppose	Slightly oppose	Neither support nor oppose
○	○	○	○

Slightly support	Moderately support	Strongly support
○	○	○

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We have $300 to donate to the following organizations. Please let us know how you would like to distribute the donations between them. We will randomly select one survey participant and make the donation according to their choice. So, your decision might be implemented and can lead to actual donations.

Americans for Tax Fairness is a diverse campaign of more than 420 national, state, and local endorsing organizations united in support of a fair tax system that works for all Americans. It has come together based on the belief that the country needs comprehensive, progressive tax reform that results in greater revenue to meet our growing needs. This requires big corporations and the wealthy to pay their fair share in taxes, not to live by their own set of rules.

World Relief is an international Christian humanitarian organization working to overcome poverty, injustice, and violence. It brings restoration and healing to millions of world's most vulnerable categories through programs in economic development, peacekeeping, health and child development, and refugee and immigration services.

Please ensure that each amount is between $0 and $300 and that the sum of both donations is equal to $300. Keep in mind that the decision you make can lead to actual donations.

Americans for Tax Fairness	$ 0
World Relief	$ 0
Total	$ 0

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Oxfam is a global organization that fights inequality to end poverty and injustice.

As part of their ongoing efforts, they are launching **a petition to increase the taxes on the ultra-rich**.

By signing this petition, you demand that President Biden, the US Congress, and world leaders take action to address the global and US inequality crisis by ensuring that multi-millionaires and billionaires pay their fair share of taxes.

Would you be interested in signing the petition?

- ○ Yes
- ○ No

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To sign the petition, please follow this link:

https://www.oxfamamerica.org/take-action/action-alert-tax-the-rich/

After you have signed, please return to complete the remaining questions of the survey.

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Next, we want to assess how much you value the following item: a backpack with a Tesla logo, including free shipping (for reference, similar backpacks are usually priced at about $35 in retail).

We will present you with 5 scenarios. **In each scenario, you need to choose between receiving a certain bonus amount OR the Tesla backpack.**

It is in your best interest to choose honestly in each scenario because your choices may be consequential. At the end of the study, we will randomly select ten survey participants. We will randomly pick one scenario for each of these ten participants and implement their choice in that scenario. For the rest of the respondents, their choices will remain hypothetical.

Please make your choice in each of the scenarios below. Feel free to modify your selections as often as you like:

	Bonus payment	Tesla backpack
Scenario 1: Bonus payment $1	○	○
Scenario 2: Bonus payment $5	○	○
Scenario 3: Bonus payment $10	○	○
Scenario 4: Bonus payment $15	○	○
Scenario 5: Bonus payment $20	○	○

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In the last part of this survey, please tell us about yourself so we can put your other replies in greater context:

What is your age?

- ○ 18-25
- ○ 26-35
- ○ 36-45
- ○ 46-55
- ○ 56-65
- ○ 66-75
- ○ Above 75

What is your gender?

- ○ Female
- ○ Male
- ○ Other
- ○ Rather not say

What is the primary ethnicity or race you identify with?

- ○ Asian/Asian American
- ○ Black/African American
- ○ White/European American
- ○ Hispanic/Latino
- ○ Other
- ○ Rather not say

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What was your yearly household income in 2023 in US dollars before taxes and deductions? (Note: the household income is the total amount of money earned by all members of your household)

- ○ Less than USD 25,000
- ○ Between USD 25,000 and 49,999
- ○ Between USD 50,000 and 99,999
- ○ Between USD 100,000 and 150,000
- ○ More than USD 150,000

Which category best describes your highest level of education?

- ○ 12th grade or less
- ○ Graduated high school or equivalent
- ○ Some college, no degree
- ○ Associate degree
- ○ Bachelor's degree
- ○ Post-graduate degree

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In politics, as of today, do you consider yourself a Republican, a Democrat, or an Independent?

- ○ Democrat
- ○ Republican
- ○ Independent

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If you had to pick between one of the two, which better describes you?

- ○ Democrats
- ○ Republicans
- ○ Rather not say

To what extent do you prefer income redistribution among U.S. citizens?

Please indicate your opinion on a scale from 0 (no redistribution) to 10 (complete redistribution), where you can choose steps in between to scale your assessment.

No redistribution										Complete redistribution
0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○	○

How much of the time do you think you can trust our federal government to do what is right?

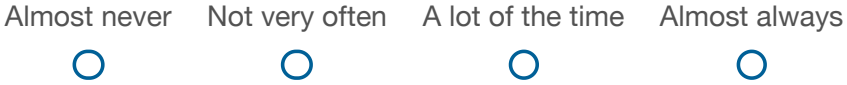
Almost never	Not very often	A lot of the time	Almost always
○	○	○	○

To what extent do you prefer income redistribution among U.S. citizens?

Please indicate your opinion on a scale from 0 (no redistribution) to 10 (complete redistribution), where you can choose steps in between to scale your assessment.



How much of the time do you think you can trust our federal government to do what is right?



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In surveys like ours, sometimes there are participants who do not carefully read the questions and just quickly click through the survey. This means that there are a lot of random answers which compromise the results of research studies. To show that you read our questions carefully, please choose both ‘Monday' and ‘Tuesday' as your answer in the first question and type ‘Dart’ into the ‘Other’ field of the second question.

Given the above, what are your preferred days to do sports? (Click all that apply)

- ☐ Monday
- ☐ Tuesday
- ☐ Wednesday
- ☐ Thursday
- ☐ Friday
- ☐ Saturday
- ☐ Sunday

Given the above, what is your favorite sport?

- ○ American football
- ○ Baseball
- ○ Ice hockey
- ○ Tennis
- ○ Golf
- ○ Wrestling
- ○ Soccer
- ○ Other: [ ]

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In your opinion, were the questions included in this survey easy or difficult to understand?

Very difficult	Somewhat difficult	Neither difficult nor easy	Somewhat easy	Very easy
○	○	○	○	○

Do you have any comments or suggestions you would like to share with us? Is there anything you found unclear or confusing? Are there questions you missed in this survey?

Please let us know what you think. You greatly help us improve our research.

Please click the button below to be redirected to Prolific and register your submission.

D Follow-Up: Survey Instrument



The study is being conducted by a team of researchers from the University of Zurich.

Participation in the study typically takes about **5 minutes**, and you will receive a **compensation of $1.50**.

The study is strictly confidential and all your responses will remain anonymous.

Your participation is voluntary. You may withdraw at any time during the study. However, if you withdraw, you will not be compensated. If you have further questions about this study, you may contact Jeffrey Yusof (jeffrey.yusof@econ.uzh.ch).

Please indicate in the box below that you understand the statements above and freely consent to participate in the study.

- ○ I agree to participate in this study.
- ○ I do not want to participate in this study.



What is your Prolific ID?

Please note that this response should auto-fill with the correct ID.



We are now going to ask you questions about your usage and opinions regarding artificial intelligence (AI) tools.

Have you ever used AI-powered chatbots or virtual assistants like ChatGPT?

No, I have never used them. ○ Yes, but only on occasion. ○ Yes, I use them regularly. ○

How would you describe your overall experience with AI tools like ChatGPT?

Very negative ○ Somewhat negative ○ Neither negative nor positive ○ Somewhat positive ○

Very positive ○

To what extent do you believe AI tools can be helpful in your daily life?

Not helpful at all ○ Somewhat unhelpful ○ Neither unhelpful nor helpful ○ Somewhat helpful ○

Extremely helpful ○

How concerned are you about the potential risks and ethical issues related to AI tools, such as privacy and bias?

Not concerned at all ○ Not very concerned ○ Neither concerned nor unconcerned ○

Somewhat concerned ○ Very concerned ○

How strongly do you oppose or support stronger regulations and oversight regarding the development and use of AI tools?

Strongly oppose ○ Somewhat oppose ○ Neither oppose nor support ○ Somewhat support ○ Strongly support ○

Treatment Arm: Hourly Earnings (Posterior)



Universität Zürich[UZH]

We are now going to ask you a question about Elon Musk. Elon Musk is an American billionaire and one of the richest people in the world. He is an entrepreneur who is famous for starting the company Tesla.

The typical American between 45 and 54 years old has an annual income of $64,000.*

One year has 8,760 hours. So if we divide the annual income by the number of hours in a year, we find that **the average person earns approximately $7 per hour.**

Now imagine we were to divide Elon Musk's annual income by the number of hours in a year.

How much do you think Elon Musk earns per hour?

$ _____ per hour

*Source: Forbes, 2023

Treatment Arm: Annual Earnings (Posterior)



Universität Zürich[UZH]

We are now going to ask you a question about Elon Musk. Elon Musk is an American billionaire and one of the richest people in the world. He is an entrepreneur who is famous for starting the company Tesla.

The typical American between 45 and 54 years old has an annual income of $64,000.*

Now think of the annual income of Elon Musk.

How much do you think Elon Musk earns per year? (in billions of USD)

$ [ ] billion per year

*Source: Forbes, 2023

Treatment Arm: Tax Rate (Posterior)



Universität Zürich[UZH]

We are now going to ask you a question about Elon Musk. Elon Musk is an American billionaire and one of the richest people in the world. He is an entrepreneur who is famous for starting the company Tesla.

The total tax rate is the overall percentage of an individual's income that is paid in taxes to the government. It considers various types of taxes, such as income tax, capital gains tax, payroll tax, and any other applicable taxes.

A single American worker who earns $45,000 per year has a total tax rate of 21% on average.*

What do you think is the total tax rate paid by Elon Musk?

Use the slider to indicate your answer, ranging from 0% to 100%.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Source: ProPublica (2022)



Please indicate to what extent you disagree or agree with the following statement:

"Billionaires abuse loopholes in the tax code to avoid paying taxes."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○

Treatment Arm: Luxury (Posterior)



Universität Zürich[UZH]

We are now going to ask you a question about Elon Musk. Elon Musk is an American billionaire and one of the richest people in the world. He is an entrepreneur who is famous for starting the company Tesla.

Elon Musk owns a residence in Austin, Texas.

How much do you think this property is worth? (in million USD)

$ [ ] million

Treatment Arm: Luck (Posterior)



We are now going to ask you a question about Elon Musk. Elon Musk is an American billionaire and one of the richest people in the world. He is an entrepreneur who is famous for starting the company Tesla.

Please indicate to what extent you disagree or agree with the following statement:

"Elon Musk earned his wealth through honest and hard work."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○



In the following questions, we are interested in your opinion, so **there are no right or wrong answers.**

Imagine that the US government is considering introducing a new personal income tax rate specifically targeting incomes exceeding $10 million.

This tax rate would apply to all billionaires, including individuals like Elon Musk.

If you were given the authority to determine the federal top income tax rate for incomes exceeding $10 million, what rate would you choose?

Please use the slider to indicate your answer, ranging from 0% to 100%.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



The corporate tax rate is the percentage of profits that US companies pay in taxes to the government.

Imagine that the US government is considering introducing a new corporate tax rate specifically for companies that make profits exceeding $10 million.

This new corporate tax rate would apply to large businesses such as Tesla.

If you were given the authority to determine the federal top corporate tax rate (for company profits exceeding $10 million), what rate would you choose?

Please use the slider to indicate your answer, ranging from 0% to 100%.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



From a perspective of fairness, do you think the taxes paid by Elon Musk are too high, appropriate, or too low?

Very low ○ Moderately low ○ Slightly low ○ Appropriate ○ Slightly high ○ Moderately high ○

Very high ○

Please indicate to what extent you disagree or agree with this statement:

"Elon Musk deserves the wealth he has."

Strongly disagree ○ Moderately disagree ○ Slightly disagree ○ Neither agree nor disagree ○

Slightly agree ○ Moderately agree ○ Strongly agree ○



To what extent do you believe Elon Musk is trustworthy?

Very untrustworthy ○ Moderately untrustworthy ○ Slightly untrustworthy ○

Neither trustworthy nor untrustworthy ○ Slightly trustworthy ○ Moderately trustworthy ○

Very trustworthy ○

How would you rate your feelings towards Elon Musk on a scale of 0 to 10, where 0 represents no admiration and respect at all, and 10 stands for full admiration and respect?

No admiration and respect — Full admiration and respect

0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○

How would you rate your overall perception of Tesla on a scale of 0 to 10, where 0 is extremely negative and 10 is extremely positive?

Extremely negative — Extremely positive

0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○



In the following screens, we will ask about your opinions on real-world policy proposals.

For each of these proposals, please indicate how strongly you support or oppose them.

At the study's conclusion, we will share the anonymous survey results with politicians and organizations relevant to these issues. **Please consider your responses carefully, as they may significantly influence policy decisions.**

Rest assured that your answers will remain completely anonymous, consistent with all other responses in this survey.



A group of academic researchers is proposing a new tax named the **California Tax on Extreme Wealth**.

This tax would apply to very wealthy individuals in the state, and here's how it would work:

- People with wealth over $50 million would pay 1% of their wealth as a yearly tax.
- Additionally, billionaires would pay an extra 0.5% on the amount above $1 billion.

The researchers estimate that in California, this tax could yield about $22.3 billion annually, with half of the revenue coming from the state's billionaires.

For more information, see: Galle, Gamage, Saez, Shanske, 2021

Would you oppose or support a similar policy in your state?

Strongly oppose ○ Moderately oppose ○ Slightly oppose ○ Neither support nor oppose ○

Slightly support ○ Moderately support ○ Strongly support ○



A group of academic researchers has presented a proposal for a **new international tax targeting corporations and large businesses**.

According to this proposal, big companies would be obligated to pay a tax amounting to 0.2% of their market value, which is the total value of all their stocks, at the end of the year.

This tax is similar to a wealth tax for the rich because it recognizes that stock ownership is largely concentrated among billionaires and other wealthy individuals.

For more information, see: Saez and Zucman, 2022

Do you oppose or support this proposal?

Strongly oppose	Moderately oppose	Slightly oppose	Neither support nor oppose
○	○	○	○

Slightly support	Moderately support	Strongly support
○	○	○

The Internal Revenue Service (IRS) is a government agency responsible for collecting taxes in the United States. Recently, a **new law** called the Inflation Reduction Act **allocated $80 billion in funding to the IRS.**

With this funding, the **IRS plans to strengthen tax enforcement to address a problem known as the "tax gap."**

The tax gap refers to the difference between the amount of taxes people should pay and what they actually pay. According to the IRS, some billionaires and other wealthy individuals are not paying their fair share of taxes, and the IRS aims to tackle this issue. By enhancing tax enforcement, the IRS hopes to ensure that everyone pays the taxes they owe.

For more information, see: CNBC, 2023

Do you oppose or support this new law that allocates additional funding to the IRS?

Strongly oppose	Moderately oppose	Slightly oppose	Neither support nor oppose
○	○	○	○

Slightly support	Moderately support	Strongly support
○	○	○



President Biden is proposing a new law called the "Billionaire Minimum Income Tax," which would require the **wealthiest American households to pay a minimum of 20% of their total income in taxes.**

This proposal includes incomes from investments, even if the gains have not been realized yet and are currently not subject to taxation. By including investment incomes in the tax calculation, the policy aims to address potential loopholes that have allowed some billionaires to minimize their tax liabilities.

For more information, see: White House, 2022

Do you oppose or support this proposal?

Strongly oppose	Moderately oppose	Slightly oppose	Neither support nor oppose
○	○	○	○

Slightly support	Moderately support	Strongly support
○	○	○



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We have $300 to donate to the following organizations. Please let us know how you would like to distribute the donations between them. We will randomly select one survey participant and make the donation according to their choice. So, your decision might be implemented and can lead to actual donations.

Americans for Tax Fairness is a diverse campaign of more than 420 national, state, and local endorsing organizations united in support of a fair tax system that works for all Americans. It has come together based on the belief that the country needs comprehensive, progressive tax reform that results in greater revenue to meet our growing needs. This requires big corporations and the wealthy to pay their fair share in taxes, not to live by their own set of rules.

World Relief is an international Christian humanitarian organization working to overcome poverty, injustice, and violence. It brings restoration and healing to millions of world's most vulnerable categories through programs in economic development, peacekeeping, health and child development, and refugee and immigration services.

Please ensure that each amount is between $0 and $300 and that the sum of both donations is equal to $300. Keep in mind that the decision you make can lead to actual donations.

Americans for Tax Fairness	$ 0
World Relief	$ 0
Total	$ 0

Oxfam is a global organization that fights inequality to end poverty and injustice.

As part of their ongoing efforts, they are launching **a petition to increase the taxes on the ultra-rich**.

By signing this petition, you demand that President Biden, the US Congress, and world leaders take action to address the global and US inequality crisis by ensuring that multi-millionaires and billionaires pay their fair share of taxes.

Have you heard of this petition before?

- ○ Yes
- ○ No



Have you already signed this petition?

- ○ Yes
- ○ No

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People have different preferences when it comes to cuisine. We're curious about your favorite type of food. We also want to check if you're paying attention. To show that you read our questions carefully, please choose both 'Japanese' and 'French' regardless of your actual preference as your answer in the first question and choose both 'Monday' and 'Tuesday' as your answer in the second question.

Based on the information provided above, which type of cuisine would you choose above all others when deciding on a meal?

- [ ] Italian
- [ ] Mexican
- [ ] Mediterranean
- [ ] Chinese
- [ ] Indian
- [ ] Japanese
- [ ] French
- [ ] Thai
- [ ] Other

Based on the information provided above, which days do you typically dine out at a restaurant? (Select all that apply)

- [ ] Monday
- [ ] Tuesday
- [ ] Wednesday
- [ ] Thursday
- [ ] Friday
- [ ] Saturday
- [ ] Sunday



Do you think this survey was biased?

Yes, left-wing biased	Yes, right-wing biased	No, it did not feel biased
○	○	○

Do you have any comments or suggestions you would like to share with us? Is there anything you found unclear or confusing? Are there questions you missed in this survey?

Please let us know what you think. You greatly help us improve our research.

Please click the button below to be redirected to Prolific and register your submission.

E Expert Forecasts: Survey Instrument



Welcome to our prediction survey for an academic study examining attitudes towards taxation.

Participation typically takes between 5 and 10 minutes. Your responses are completely anonymous. Participation is voluntary, and participants may withdraw from the survey at any time.

Please click "I agree" when you are ready to start the survey.

○ I agree to participate in this survey.

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Study overview

We conducted a survey of about 9,000 respondents from the United States. These subjects were recruited via the Prolific platform. Subjects filled out a 15-minute survey online.

The main goal of the survey is to study individuals' attitudes towards the taxation of billionaires.

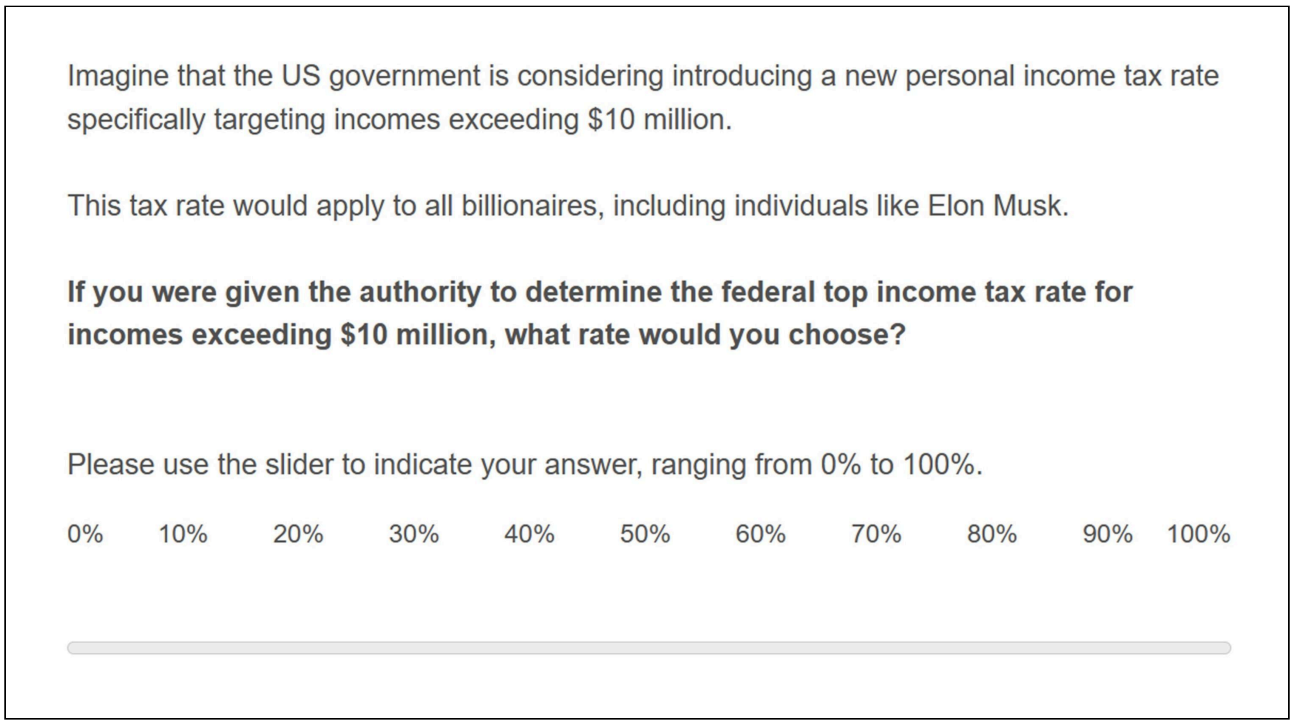
Many of the survey questions are related to a billionaire and one of the companies he founded. At the beginning of the survey, each subject is randomly allocated to one of the following five billionaires:

- Elon Musk (founder of Tesla).
- Jeff Bezos (founder of Amazon).
- Bill Gates (founder of Microsoft).
- Mark Zuckerberg (founder of Meta).
- Michael Bloomberg (founder of Bloomberg).

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Your task

We want you to guess the average treatment effects of each of these treatments on individuals' preferences for taxation. For brevity, we focus on the main outcome of interest, which we elicited as follows:



Across all the control groups (i.e., subjects who did not receive any information), the average preferred tax rate for billionaires was approximately 43%.

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Study details

Each subject is randomly allocated to one of the following treatment arms:

- **Tax Rate**: We randomize information about the total tax rate paid by billionaires.
- **Earnings**: We randomize information about the earnings of billionaires.
- **Luxury**: We randomize information about the worth of billionaires' homes.
- **Luck**: We randomize information about how billionaires made their fortunes.

In each treatment arm, subjects are randomized into either the treatment group (i.e., those receiving information) or a control group (i.e., those not receiving information). Following this information-provision stage, we then measure the outcomes of interest.

In the following screens, we provide screenshots of each of the information treatments. We then **ask you to guess how that treatment (relative to the control group) affected the outcome of interest**. We will present these treatments in a randomized order. For brevity, we will show you a sample screenshot of a treatment; we always show the one corresponding to Elon Musk. However, please keep in mind that when we elicit your predictions, they pertain to the average results across all five billionaires, not just Elon Musk.

Treatments

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Treatment Arm: Hourly Earnings

Individuals in the treatment group receive the following information about the billionaire's earnings:

> Elon Musk's earnings have significantly increased since he became a billionaire in 2012.
>
> Between 2012 and 2023, his wealth has grown from around $2 billion to $180 billion.
>
> This means that, on average, Elon Musk has earned about $16.18 billion per year during this period.
>
> If we divide this yearly amount by the number of hours in a year, it means **Elon Musk has earned about $1,847,000 per hour** during this time.
>
> Source: Forbes, 2023.

Click here to see screenshots for the other billionaires.

Individuals in the control group receive no information.

Assume that the average preferred tax rate for billionaires was 43% in the control group.

What do you expect the average preferred tax rate for billionaires to be in the treatment group?

0 10 20 30 40 50 60 70 80 90 100

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Treatment Arm: Annual Earnings

This treatment is identical to the previous one, except that we provided information about the billionaire's annual earnings instead of the hourly equivalent:

> Elon Musk's earnings have significantly increased since he became a billionaire in 2012.
>
> Between 2012 and 2023, his wealth has grown from around $2 billion to $180 billion.
>
> This means that, on average, **Elon Musk has earned about $16.18 billion per year** during this period.
>
> Source: Forbes, 2023.

Assume that the average preferred tax rate for billionaires was 43% in the control group.

What do you expect the average preferred tax rate for billionaires to be in the treatment group?

0 10 20 30 40 50 60 70 80 90 100

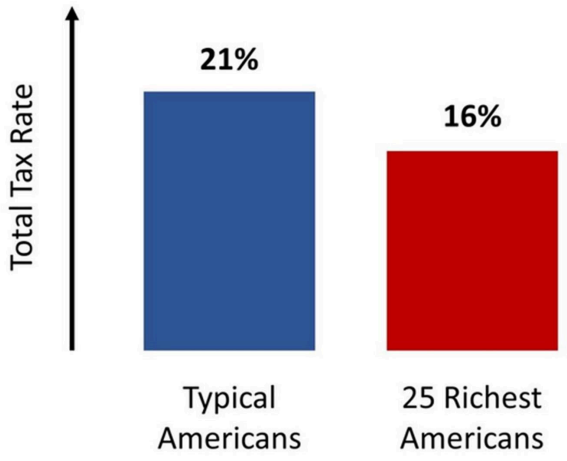
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Treatment Arm: Tax Rate

Individuals in the treatment group receive the following information about the total tax rate paid by billionaires:

A single American worker who earns $45,000 per year has a total tax rate of 21% on average.

Elon Musk is one of the 25 richest Americans by net worth. Recent research has shown that **people in this group have a total tax rate of 16% on average**.



Source: ProPublica, 2022

Individuals in the control group receive no information.

Assume that the average preferred tax rate for billionaires was 43% in the control group.

What do you expect the average preferred tax rate for billionaires to be in the treatment group?

0 10 20 30 40 50 60 70 80 90 100

Treatment Arm: Tax Rate + Loopholes

In this treatment arm, there was a sub-treatment. In addition to the information about the total tax rate paid by billionaires, individuals receive the following information about tax avoidance:

According to some accounts, billionaires manage to pay even lower tax rates through a variety of accounting strategies.

Billionaires often get paid in stocks.

Billionaires do not need to pay taxes on the stocks they hold until they sell it. By refraining from selling their stocks, billionaires can avoid generating taxable income. Instead, billionaires can access their wealth by borrowing against their stocks, which does not incur taxes.



Billionaires set up smaller companies in tax havens.

Billionaires can transfer the profits of their companies to these smaller companies, which pay very little or no taxes. A recent study revealed that U.S. multinational companies moved over half of their foreign profits to low-tax countries, leading to an estimated loss of around $50 billion in tax revenue for the US government.



Sources: ProPublica, 2021, Tørsløv, Wier, Zucman (2023)

You guessed that for individuals who saw the treatment about the tax rate, the average preferred tax rate for billionaires would be 58%. What do you expect the average preferred tax rate to be for individuals who were also shown the additional information on tax avoidance?

0 10 20 30 40 50 60 70 80 90 100

Treatment Arm: Luxury

Individuals in the treatment group receive the following information about the billionaire's home:

According to some accounts, **Elon Musk is living in an Austin mansion worth $12 million**. "Musk has been living in a nearly 8,000-square-foot estate owned by Howery, the co-founder of PayPal and former U.S. ambassador to Sweden — when Howery bought it in 2018 for $12 million, it was the most expensive property then on the market in Austin."



Source: Forbes

Click here to see screenshots for the other billionaires.

Individuals in the control group receive no information.

Assume that the average preferred tax rate for billionaires was 43% in the control group.

What do you expect the average preferred tax rate for billionaires to be in the treatment group?

0 10 20 30 40 50 60 70 80 90 100

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Treatment Arm: Luck

Individuals in the treatment group receive the following information about the billionaire's source of wealth:

Contrary to popular belief, Elon Musk did not start Tesla.

Tesla was founded in 2003 by Martin Eberhard and Marc Tarpenning. When the initial founders of Tesla went looking for venture capital funding in 2004, Elon Musk contributed $6.5 million of the initial round of investment and became chairman of the board of directors. The two initial founders, Eberhard and Tarpenning, left Tesla in 2007 and 2008, respectively, and Musk became the CEO of Tesla in 2008. In 2009, Eberhard sued Musk for calling himself a founder of Tesla, but the suit was settled in an agreement that also allows Musk to refer to himself as a co-founder.



Source: Business Insider; Yahoo Finance

Click here to see screenshots for the other billionaires.

Individuals in the control group receive no information.

Assume that the average preferred tax rate for billionaires was 43% in the control group.

What do you expect the average preferred tax rate for billionaires to be in the treatment group?

0 10 20 30 40 50 60 70 80 90 100

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On a scale from 1 (Not confident at all) to 5 (Extremely confident), how confident are you in all the predictions you provided above?

Not confident at all				Extremely confident
1	2	3	4	5
○	○	○	○	○

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Which of the treatments do you expect to have the strongest effect on the preferred tax rate for billionaires?

For your reference, find below a summary of all the treatments described before:

- Tax Rate: We randomize information about the total tax rate paid by billionaires.
- Earnings: We randomize information about the earnings of billionaires.
- Luxury: We randomize information about the worth of billionaires' homes.
- Luck: We randomize information about how billionaires made their fortunes.

Please rank the six treatments according to the strength of their effect (in absolute value, regardless of whether the effect is positive or negative). That is, you should place the treatment with the strongest effect at the top of the ranking and the treatment with the weakest effect at the bottom of the ranking.

Use the left mouse button to drag and drop and guess the ranking.

	Ranking
Tax rate only	
Tax rate + loopholes	
Hourly earnings	
Annual earnings	
Luxury	
Luck	

(Optional) Could you please briefly explain why you believe the highest-ranked treatment has the strongest effect?

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In addition to the preferred income tax rate for billionaires, we also elicited the preferred top corporate tax rate.

If a treatment affects the preferred income tax rate for billionaires, do you expect that treatment will affect the preferred top corporate tax rate as well?

- ○ Yes
- ○ No

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As another outcome of interest, we elicited the subjects' support for policies aimed at increasing the taxation of the super wealthy. We described real-world policy proposals, and asked the subjects to indicate their support for each policy. Additionally, we gave subjects the opportunity to donate money to an NGO that supports this cause, and also to sign a petition. With all of these outcomes, we constructed an index of policy support.

If a treatment affects the preferred income tax rate for billionaires, do you expect that treatment will affect the policy support as well?

- ○ Yes
- ○ No

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A month after the baseline survey, we conducted a follow-up survey.

If a treatment affects the desired income tax rate for billionaires in the baseline survey, do you expect that effect to persist (at least partially) in the follow-up survey?

- ○ Yes
- ○ No

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This is the last section of the survey. We would appreciate if you could share some information about yourself.

Which of the following describes your current position?

- ○ Professor
- ○ Assistant Professor
- ○ Post-doc
- ○ Researcher
- ○ PhD Student
- ○ Master Student

Please select your discipline:

- ○ Economics
- ○ Business (management, accounting, finance, etc.)
- ○ Political Science
- ○ Psychology
- ○ Sociology
- ○ Other

Have you ever conducted research on preferences for redistribution?

- ○ Yes
- ○ No

Have you ever conducted research on taxation?

- ○ Yes
- ○ No

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This is the end of the survey. If you click next, you will submit your responses.

We thank you for taking the time to provide your forecasts!

Do you have any comments or suggestions you would like to share with the researchers who designed this study? Is there anything you found unclear or confusing? Please let us know what you think.