UNDERSTANDING TAX POLICY: HOW DO PEOPLE REASON?*

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I study how people understand, reason, and learn about two major tax policies: income taxation and estate taxation. Using large-scale social economics surveys issued to representative U.S. samples and associated experiments, I elicit respondents' factual knowledge about tax policy and the income or wealth distributions. Most important, I study their understanding of the mechanisms of tax policy and the reasoning that underlies their policy views. In decomposing policy views, I find that support for income and estate taxes is most strongly correlated with social preferences, that is, the perceived benefits of redistribution and concerns around the fairness of inequality and taxation, as well as with broader views of the government. Efficiency concerns play a more minor role. These correlational patterns are confirmed by the experimental approach, which shows people instructional videos that explain the workings and consequences of one of the aspects of tax policy (the Redistribution and the Efficiency treatments) or that bring the two together and focus on the trade-off (the Economist treatment). The Redistribution and Economist treatments significantly increase support for more progressive income or estate taxes, while the Efficiency treatment has no effect. There are large partisan gaps in both the final policy views and at every step of the reasoning about the underlying mechanisms of taxes. Democrats' and Republicans' divergences in tax policy views can ultimately be traced back to different normative criteria (social preferences) and views of the government, rather than to different perceptions of the efficiency implications of taxation. *JEL Codes:* D72, D91, H21, H23, H24, H41.

I. INTRODUCTION

People hold starkly different views on many policies, but their reasons are not always apparent. Policy views may be grounded

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in perceptions concerning the economic effects of these policies, as individuals may disagree as to which policy will be most effective at achieving a given goal. Alternatively, it could be that people assess the benefits and costs to them and those they care about in contrasting ways. Another reason may be disagreement about what the goals of a policy should be and divergent views on what is fair or just.

Consider income taxes. Different views about the right level of income taxes could come from different perceptions of its behavioral or efficiency effects ("Will people stop working if income taxes increase?"). Views might be shaped by how people perceive its distributional effects ("Who benefits if taxes are cut?") and from the normative criteria people apply when weighting winners and losers ("How fair is income inequality?"). They may also be driven by people's perceptions of the trustworthiness and efficiency of government ("Will the government waste a lot of the tax revenue?") or by concerns over how tax revenue will be spent ("Will revenues finance investments in infrastructure or defense, or be redistributed to low-income households?"). In addition, views might be rooted in misperceptions or misunderstandings of the current tax system. Variation in policy views could be traced to one or more of these primary considerations, with different considerations taking precedence among different demographic groups (e.g., based on political affiliation, income, education, and gender).

In this article, I assess what people know about two major U.S. tax policies: income taxation and estate taxation. More important, I explore how they reason. My goal is to examine the mechanisms that people think each policy operates through, which factors matter to them, and how they trade off the different considerations when they think about which type of tax policies to support. Do people focus more on the distributional implications of taxes or on their efficiency costs? What social preferences or criteria do they use? How do the answers to these questions differ by the socioeconomic and political characteristics of respondents?

I also study how readily people can learn about economic policies and change their views. If people are provided simple but accurate explanations of the distributional and efficiency consequences of economic policies—not unlike those they might receive in an introductory economics class—do their views potentially change?

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There are at least three important benefits to understanding how people's reasoning determines support for or opposition to policies. First, it has some benefits of more structural approaches. By digging into more primitive factors, we can learn about people's perceived parameters and considerations and flag where agreements and disagreements lie. As is the case with structural models in other settings, this can eventually be used to generalize (or recognize the limits to generalizations), predict, and analyze counterfactual changes. Second, identifying gaps in the public's knowledge or incoherent reasoning about the policy enables pinpointing where information is needed and which groups particularly require the information. For citizens—perhaps especially for those from economically disadvantaged and disenfranchised groups—gaining a better understanding of these policies is a first step toward supporting the ones beneficial to them. Third, it is critical to disentangle diverging perceptions of economic facts from different value judgments and fairness criteria when it comes to taxes. Do value judgments and fairness criteria differ across people or groups (e.g., do people have heterogeneous aversions to income or wealth inequality?). Or is it more a matter of divergent perceptions about economic facts (e.g., do people disagree on how much inequality there actually is, even if they are similarly averse to it)? Social preferences (i.e., how citizens weigh the gains and losses of different people in the economy) depend on both of these. Misperceptions and lack of knowledge could, to some extent, be corrected with better information. In turn, better information about how the economy actually works may ultimately shape people's normative views.

To this end, I run two large-scale social economics surveys and experiments on representative samples of the U.S. population. The questions that make up these surveys are designed to elicit respondents' factual knowledge about tax policy and their understanding of its mechanisms. The detailed set of questions asked allows me to decompose policy views into primary factors such as perceived efficiency costs, distributional implications, social preferences and fairness concerns, knowledge or misperceptions, and views of the government. This sheds light on which aspects seem to matter more—at least in a correlational sense—for respondents' ultimate policy views. To establish a causal link between reasoning and policies, I experimentally show people instructional videos that explain the workings and consequences of each policy from three different perspectives: Redistribution,

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Efficiency, and Economist. The Redistribution perspective focuses on the winners and losers of each policy, while the Efficiency perspective zeroes in on the efficiency costs. Finally, the Economist perspective presents issues in light of trade-offs, combining both of the previous perspectives. Each video aims to be pedagogical rather than just informational. It seeks to increase knowledge and understanding by explaining mechanisms and reasoning, rather than just providing quantitative facts or information, or expressing normative views on how policies should be.

The two main findings are as follows. First, there are very large partisan gaps, not just in the final policy views but at every step of the underlying reasoning about taxes. In fact, there is even a "polarization of reality" (Alesina, Miano, and Stantcheva 2020) whereby Republicans and Democrats do not perceive the current tax system in the same way. Left-leaning respondents tend to think actual taxes are lower and less progressive than do right-leaning ones. On the perceived efficiency effects of income tax changes, respondents generally tend to think that high-income earners are more responsive to income taxes than middle-class households, and that the main channels of response are increased tax evasion, higher likelihood of moving to a different state, and being less entrepreneurial. Yet while Republicans believe that taxes drive larger distortions in behavior, particularly with regard to reduced entrepreneurship and labor supply, Democrats tend to believe that income tax changes will not have as substantial an effect. Regarding the estate tax, respondents across the political spectrum perceive the wealthy to be significantly responsive to changes in it.

As the effects of taxes considered move from specific (i.e., the effect on individual taxpayers) to broad (i.e., the overall effect on the economy), partisan disagreement increases sharply. Issues such as whether top income and estate tax cuts induce trickle-down effects that benefit everyone or whether they lead to Laffer effects (i.e., increased tax revenues on balance) tend to vary substantially across distinct party lines.[1] Some of the most significant contrasts between Democrats and Republicans lie in social fairness considerations about the income and estate tax, the causes of income disparities, the fairness of wealth transmission, and views of the government. Overall, the partisan gap in policy views on

1. Ironically, there is bipartisan agreement that Laffer effects exist for the middle class, although there is no convincing empirical evidence for this phenomenon.

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income and estate taxes can be traced back to different normative criteria, social preferences, and views of the government rather than to different perceptions of the efficiency implications of taxation.

Second, a Gelbach decomposition of policy views (Gelbach 2016) shows that factors related to social preferences are critically important. One such factor is the perceived benefits of redistribution. Another relates to fairness judgments, such as how fair inequality is perceived to be, whether high earners are entitled to keep a large share of their income, and how fair it is that wealthy parents can pass on wealth to their children. Views of the trustworthiness and scope of government are also crucial drivers of support for taxes. (Notably, these are also the factors that best explain the partisan gap.) Although the belief that higher taxes will hurt the economy is predictive of policy views, it is quantitatively less important than social preferences and views of government. In a nutshell, people who think that inequality in income or wealth is a serious issue or who trust the government would still be more likely to support more progressive tax policy, even if they thought it would have detrimental effects on the economy. The experimental results are in line with the correlational patterns from the decomposition. Both the Redistribution and Economist treatments increase support for progressive taxation, even though the latter also shows the economic costs from taxation. The Efficiency treatment has no effect. Taken together, these findings appear to suggest that redistributive concerns tend to dominate efficiency arguments in the case of income and estate taxes.

This article is part of a broader agenda that uses social economics surveys to shed light on people's reasoning that shapes their policy views. Complementary resources include the extensive Online Appendix, which gathers many additional figures and tables and details on the methodology, and the website understandingeconomics.org for several policies (such as health insurance, trade, income taxes, and the estate tax). Surveys are a key way to uncover intangibles and unobservable factors such as perceptions, attitudes, reasoning, and views, which present challenges for our traditional revealed preference methods. Of course, the trustworthiness of the results depends on the quality of the survey. Meaningful results require an attentive and representative sample and good survey design. This will be discussed in the next two sections.

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I.A. Related Literature

People's perceptions of their own tax rates and the widespread misunderstanding of the distinction between marginal and average tax rates have been studied in De Bartolome (1995), Gideon (2017) and Ballard and Gupta (2018). "Schmeduling," that is, approximation heuristics along the income tax rate schedule, is investigated by Rees-Jones and Taubinsky (2019). The literature has focused largely on misperceptions and (lack of) factual knowledge, but less so on reasoning about tax policy, that is, the mechanisms that people think will play out for themselves and others. Slemrod (2006) tries to understand why people support regressive reforms and maps this support to broader misunderstandings of the incidence of taxes. Misperceptions about the incidence of taxes are also prevalent in Bartels (2005) who finds that support for the 2001 and 2003 tax cuts, which primarily benefited very wealthy taxpayers, was mainly driven by considerations over a person's own taxes, despite widespread opposition to increasing wealth inequality.

Perceptions of the broader economy have been studied in Blinder and Krueger (2004), who also rank the determinants of views on major policy issues by order of importance. They find that ideology is the most important one, which is in keeping with this article's finding that political affiliation is the major predictor, followed by knowledge about the economy and then self-interest.[2]

The article is also related to the literature that studies the effects of experimentally providing information about inequality or the tax system on support for redistribution. Kuziemko et al. (2015) find only moderate effects stemming from providing this increased information in the United States, because information on the degree of inequality and its rate of increase also has the effect of reducing trust in government. However, telling respondents that the estate tax is—contrary to widespread belief—paid by only one in 1,000 households increases support for it starkly, echoing the results of Sides (2011). Fisman et al. (2020) study the joint preferences over income and wealth taxation using online surveys. Lab experiments using distribution games have been used

2. Several papers specifically investigate the divergence in opinions on the economy between the general public and economists (Blendon et al. 1997; Fuchs, Krueger, and Poterba 1998; Sapienza and Zingales 2013).

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to disentangle the importance of various factors in shaping support for redistribution (for a recent review, see Cappelen, Falch, and Tungodden 2020).

I will highlight the role of trust in government in shaping support for more progressive taxation, which is consistent with the results in Kuziemko et al. (2015), who find that experimentally reducing trust in government reduces support for redistribution as a whole. Di Tella, Dubra, and Lagomarsino (2016) also show that more trust in the government, particularly in business elites, causes a decline in desired taxes on the top 1%. In line with my results, the recent study by Almås, Cappelen, and Tungodden (2020) finds that when comparing attitudes towards redistribution between the United States and Scandinavia, it is views on fairness, not efficiency, that differ.

The article is organized as follows. Section II develops the conceptual framework that informs the design of the building blocks of the surveys. Section III describes the data collection, the survey structure, and the sample. Section IV presents respondents' knowledge about taxes and the income and wealth distributions. Section V digs into respondents' reasoning about the behavioral responses and distortionary effects associated with tax policy, their distributional effects, and their fairness implications. Section VI first decomposes policy views and the partisan gap into the various factors that shape them and then describes the experimental effects. All appendix material can be found in the Online Appendix.

II. Conceptual Framework

I illustrate how we can model respondents' preferred policies by considering the top tax rate and linear bequest rate that they would like to set, were they the social planner. The setting is intentionally kept as simple as possible while still allowing me to frame and interpret the survey design and empirical findings. I discuss some extensions and alternative assumptions below.[3]

3. The derivation for the top income tax rate formula follows Piketty, Saez, and Stantcheva (2014); the derivation of the estate tax formula follows Piketty and Saez (2013). One simple extension added here is the parameter γ capturing views of the government.

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II.A. Respondent's Perceived Economic Model

Imagine that each respondent j has their own specific model of the economy in mind, where all parameters have respondent-specific values that correspond to a respondent's perceptions of them. To reduce notational clutter, I do not explicitly index each parameter by j. Let i index agents in the economy, as perceived by respondent j. Each person i exerts effort to produce output y_i and is paid $z_i = \eta_i \cdot y_i$. Pay can differ from marginal product and the gap between the two is $\pi_i := (\eta_i - 1)y_i$. If $\eta_i > 1$, pay is above marginal product, and agent i earns rents, for instance, through monopoly power in their business; if $\eta_i < 1$, pay is below marginal product, and agent i creates a positive spillover on others, for example, if they are "job creators" whose economic activity benefits even those with lower incomes through increased employment and career opportunities. Agents face increasing and convex costs of producing output and increasing their pay relative to their output, $h_i(y)$ and $k_i(\eta)$. Their utility payoff is

$$u_i(c, \eta, y) = c - h_i(y) - k_i(\eta). \tag{1}$$

Let us focus on top earners who make income above $\bar{z}$ and assume they have a mass of 1. The government can set a linear tax rate τ in the top tax bracket. Let $z(1-\tau) := \int_{i:z_i \geqslant \bar{z}} z_i di$ be the average income of top-bracket taxpayers and $\pi(1-\tau) := \int_{i:z_i \geqslant \bar{z}} \pi_i di$ their average rent, which are both functions of the top net-of-tax rate. Let $e = \frac{d\log(z)}{d\log(1-\tau)}$ be the elasticity of earnings to the net-of-tax rate and $e_\pi = \frac{d\log(\pi)}{d\log(1-\tau)}$ the elasticity of the rent. Define $a = \frac{z}{z-\bar{z}}$ to be the Pareto parameter of the top tail of the distribution. The average rent in the economy must come at the expense or benefit of some agents. For simplicity, we assume that all agents bear the average rent uniformly.[4] Thus, the government can fully tax or rebate back the average rent or surplus to everyone with a lump-sum tax or transfer (the demogrant). Respondents may also perceive the government as being partially inefficient and wasteful; this is captured by the share γ of revenue that is dissipated instead of being used on productive spending and transfers.

4. This assumption can be relaxed, see Piketty, Saez, and Stantcheva (2014).

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II.B. Respondent's Objective

Which objective would respondents want the government to maximize, that is, what would be their social welfare criterion were they making decisions on taxes? A general way to capture the heterogeneous objectives of respondents relies on generalized marginal social welfare weights (Saez and Stantcheva 2016). The weight g_i on person i measures the social value (according to respondent j) of transferring \$1 to person i. These weights can be used to aggregate the gains and losses from tax changes of different people in the economy. They embody the social preferences of individuals when it comes to taxes and transfers and can depend on their social fairness concerns and many other factors. For instance, we can write:

$$g_i = g(c_i, T_i, w_i, \mathbb{X}_{-i}, \mathbb{X}_i) \tag{2}$$

where the weight on agent i is a function of their consumption c_i, their total tax paid T_i, their effort w_i, other personal characteristics captured by vector $\mathbb{X}_i$ (e.g., age or family status), and possibly the characteristics of others in the economy, captured by $\mathbb{X}_{-i}$.

Some of the social preferences highlighted in the literature are as follows. Utilitarian or welfarist preferences feature weights that are decreasing in disposable income c_i, either due to diminishing marginal utility of income (concave utility), or to social aversion to inequality (i.e., the social welfare function is a concave transformation of individual utilities), or both. The libertarian criterion places more weight on people who pay higher taxes, according to the view that people are ultimately entitled to their income (and, pushed to the extreme, that "taxation is theft") and that those that pay higher taxes are more deserving of tax cuts or transfers. Meritocratic or equality of opportunity criteria place weight on a person's merit or effort they have had to exert and penalize those that have benefited from "luck" in the form of, say, advantageous circumstances or a good family background. This can be captured by the weight g_i increasing in individual effort or merit w_i.[5] To go from these individual weights to social marginal welfare weights for a given income level, respondents need to average the weights across all individuals earning that income level. This will depend on their perceived composition of people at the

5. For a rigorous microfoundation of this type of weight with equality of opportunity considerations, see Saez and Stantcheva (2016).

given income level. For instance, if a meritocratic-minded respondent believes that the composition of top earners is mainly tilted toward people who have benefited from luck more than others, they may assign them a lower weight relative to lower-income people. We can now define the income-weighted average marginal social welfare weight on top earners relative to the average weight in the economy to be $\bar{g}^{top} = \frac{\int_{i:z_i \geq z} z_i g_i}{z \int_i g_i}$.

Note that such a formulation is quite general. For instance, a purely self-interest driven objective would imply that the respondent only assigns a positive social marginal weight to themselves, with everyone else receiving a weight of zero. This would lead respondents to prefer the tax rate that most benefits people with the same income level as themselves.

II.C. Respondent's Preferred Top Income Tax Rate

According to respondent j, the optimal top income tax rate that the government should set is given by:

$$\tau^{top} = \frac{1 - \frac{\bar{g}^{top}}{\gamma} + a \cdot \frac{\pi}{z} \cdot e_{\pi}}{1 - \frac{\bar{g}^{top}}{\gamma} + a \cdot e}, \tag{3}$$

where all parameters are as perceived by the respondent—and may or may not correspond to reality. The optimal top tax rate depends on the following perceived factors. First, the distribution of income and inequality appears in the Pareto parameter a of the top tail. A thicker tail represents higher perceived top income inequality and tends to push the respondent's desired top tax rate up. The income distribution and inequality also influence the distributive factor $\bar{g}$. If the social welfare weights are lower at higher incomes, higher inequality leads to a higher top tax rate.

Social preferences will appear in $\bar{g}$ and reflect on the desired tax rates through any of the channels explained above. For instance, social marginal welfare weights that embody more aversion to inequality (e.g., declining faster in c) will lead to higher preferred tax rates. Social marginal welfare weights that feature aversion to taxes according to libertarian views (e.g., increasing faster in T) will lead to lower preferred tax rates.

Economic efficiency concerns are captured by the elasticity e of taxable income to taxes. People may change behaviors in response to income taxes, such as reducing productive activities (e.g., working or saving) or evading taxes. Often discussed is a

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Laffer effect, whereby an income tax cut could ultimately lead to an increase in tax revenues by stimulating economic activity by so much that the additional revenue collected on that increased activity outweighs the direct loss in revenue. The preferred tax also depends on perceived spillover effects from top tax rates, through either trickle-up or trickle-down effects embodied in $\frac{\pi}{z} \cdot e_\pi$. Lack of trust in or perceived inefficiency of government, captured by a smaller γ, will lead to lower desired tax rates because the respondent believes that a larger share of revenues will be wasted or dissipated.

To sum up, people's preferred top income tax rate can differ based on their perceptions of the income distribution and inequality, efficiency costs of taxes, possible spillovers, government efficiency, and their social preferences which embody their social fairness concerns. All else equal, respondents who think taxes will hurt the economy, do not consider inequality to be a serious problem, believe in trickle-down effects, or think the government is not to be trusted with revenues would prefer a lower top tax rate.

II.D. Respondent's Preferred Estate Tax Rate

We can also derive the preferred estate (or bequest) tax rate. To simplify the exposition, I consider the tax rate in a steady state of the economy, assuming that bequests enter parents' utility (i.e., parents care about leaving bequests to their children), there are spillovers, the elasticity of bequests is uncorrelated with the individual welfare weight g_i, and labor income is inelastic:[6]

$$\tau_B = \frac{1 - \frac{\bar{g}^{\text{children}}(1+e_B) + \frac{1}{R}\bar{g}^{\text{parents}}}{\gamma}}{(1+e_B) \cdot \left(1 - \frac{\bar{g}^{\text{children}}}{\gamma}\right)}, \tag{4}$$

where $e_b = \frac{db}{d(1-\tau_B)} \frac{1-\tau_B}{b}$ is the steady-state elasticity of aggregate bequests b with respect to the net-of-tax rate $1 - \tau_B$. $\bar{g}^{\text{children}}$ is the bequest-weighted marginal social welfare weight on heirs, and $\bar{g}^{\text{parents}}$ is the bequest-weighted marginal social welfare weight on parents.

Similar effects to the ones in the income tax formula appear for the bequest tax. The efficiency cost of bequest taxes (e_B)

6. Many of these can be relaxed but lead to more complex formulas; see Piketty and Saez (2013).

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captures behavioral responses to taxes that reduce the bequest tax base, such as saving less or choosing to leave smaller bequests. The distribution of estates appears in the distributional factors $\bar{g}^{\text{children}}$ and $\bar{g}^{\text{parents}}$. Views of government are captured by γ.

The major qualitative difference to the income tax formula lies in the social fairness considerations that are relevant to estate taxation. The thorny fairness issues revolve around two conflicting concerns. Respondents who consider the question from the point of view of the parents may view the ability of the latter to pass on wealth to their children tax-free to be relatively fair, perhaps based on the reasoning that people can purchase any types of goods with their money and spend it how they wish. However, once that respondent considers the point of view of the children, they may feel it is unfair that some children receive much higher wealth from their parents through no fault or merit of their own, perhaps based on an equality of opportunity argument. Respondents who believe more strongly in leveling the playing field for children would have a lower $\bar{g}^{\text{children}}$, which leads to a higher desired bequest tax; respondents who instead mostly wish to respect parents' choices to pass on wealth to their children would have a higher $\bar{g}^{\text{parents}}$, which implies a lower preferred bequest tax. For respondents who have some aversion to wealth inequality (as embodied by the social marginal welfare weights decreasing in the level of bequests), $\bar{g}^{\text{children}}$ and $\bar{g}^{\text{parents}}$ will be lower when perceived wealth or estate inequality is higher, which will lead to a higher desired estate tax.

II.E. Knowledge about the Current Tax System

Knowledge of the current tax system may not necessarily be related to people's preferred tax rates, but it would naturally shape support for particular tax reforms. Imagine two respondents, A and B, have the same desired level of tax progressivity, but A lacks knowledge about current taxes and wrongly perceives the tax system to be more progressive than B. Respondent A may not support progressive tax reform, even if they ultimately agree with respondent B on how their ideal tax system should look like. Results in Section VI.C are consistent with this.

II.F. Additional Remarks

This framework gives us a way to think about respondents' preferred tax policies as a function of the parameters they

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perceive. It is quite general. For instance, respondents may over- or underemphasize some of the concerns, such as the elasticity of income to taxes. Some terms may entirely drop out of the formula or dominate it. In addition, the social welfare weights formulation allows for a wide range of objectives that respondents may adopt, including a self-interest-driven one. The public economics literature has derived formulas for many other cases for which the effects discussed here would directly carry over, at the expense of more notation and derivations, for example, a nonlinear income tax (Saez 2001), a nonlinear capital or wealth tax (Saez and Stantcheva 2018) or bequest tax (Piketty and Saez 2013).[7]

How revenue is spent may matter to respondents and will be asked in the survey and studied below. However, incorporating the many possible types of spending in a tractable way in the formal model is challenging because it requires modeling people's perceptions about how efficient each type of spending or program is, whom it benefits, and so on.

II.G. A Roadmap

The survey contains questions aimed at eliciting each of these considerations about income and estate taxes. These will be the explanatory variables (on the right-hand side) for policy views (on the left-hand side). The steps to achieve this translate into the design of the survey. I start by asking respondents for detailed socioeconomic background questions and political affiliation. This captures characteristics such as income, family status, or partisanship that can shape perceptions as well as one's private benefit and self-interest from taxes. Then, I study the factual knowledge of respondents about taxes and the income and wealth distributions. After this, I take a deep dive into uncovering the reasoning on efficiency costs, distributional effects, and fairness concerns before asking about overall policy views. Respondents are also asked about views of the role, competence, and efficiency of the government. In Section VI.C, I estimate the effect of these various components on policy views and decompose the partisan gap in policy views. Finally, to establish causality about how the main factors that enter the tax formula (i.e., $\bar{g}$ and e) shape policy views on taxes, I provide randomized video courses that will shift these

7. Furthermore, although the intention is to capture the most frequently discussed fairness concerns related to taxation through the survey questionnaire, there may be other fairness concerns that could be explored, too.

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factors. The videos explain these effects of taxes pedagogically, the way one might do in a very brief introductory economics class.

III. Survey Design and Data

III.A. Data Collection and Final Sample

The core data come from two surveys, conducted between February and May 2019 on U.S. residents aged 18 to 69. The sample sizes are 2,780 for the income tax survey and 2,360 for the estate tax. The surveys were distributed by the commercial survey company Respondi (*https://www.respondi.com/EN/*).

1. *How Were Participants Enrolled?* Online Appendix OA-4.2 provides more information on how the sample is contacted, the survey company's targeting, and the overall response rates. In brief, the commercial survey company has a large pool of vetted survey respondents that come from different panels, who can freely log in and take surveys in exchange for rewards. Surveys are typically consumer surveys, that is, related to consumer products or experiences. Respondents come from a variety of backgrounds and are rewarded through a range of different means, such as cash and points on reward programs. Compensation for completed surveys is implemented by each panel company and varies based on the type of arrangement and preferences of the respondent.

On the survey entry page, respondents were only told the length of the survey, but not the topic or the sender. This is important to avoid selection based on the topic. After clicking on the link, respondents were channeled to a consent page (see Online Appendix Figure OA-1) that informed them that they were about to take an academic research survey, destined solely for research purposes and run by nonpartisan researchers. They were asked to respond accurately to the best of their knowledge and were assured that participation was entirely voluntary. Respondents were then guided through some screening questions that ensured that the final sample was nationally representative along gender, age, and income dimensions, as well as through the detailed background socioeconomic questions. This meant that if respondents decided to drop out at some point during the survey—say, upon learning the topic of the survey—all their demographic and background information would be known, allowing me to check for differential attrition by observable characteristics such as

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political affiliation. There is no clear differential attrition (see Online Appendix Table OA-11).

2. *Data Quality.* Online Appendix OA-4 describes methods used in the survey to ensure quality responses and to check for data quality. The median time for completion of the survey was 35 minutes. I benchmark this against other common surveys and check for possible survey fatigue in Online Appendix OA-4.3. For the benchmark sample, I drop respondents in the bottom 5% of the survey time distribution. The results are not affected by trimming these outliers (see Online Appendix OA-8.2).

3. *Final Sample.* Table I shows the characteristics of the samples and compares them to U.S. population statistics. The final samples for each of the two surveys are close to representative of the U.S. population along many dimensions. This is true by construction for the targeted dimensions of age, gender, income (arranged into five brackets to mimic the way the quotas were imposed during the surveys). In addition, the sample is also broadly representative on many nontargeted dimensions, such as the share of respondents who are married and the share of employed, unemployed, and self-employed. Importantly, the sample is also representative along the political affiliation dimension and on the voting patterns of the 2016 presidential election. However, in both surveys, respondents were more likely to have completed high school and be college-educated than the general population. In addition, African American and Hispanic populations are underrepresented. To address these imbalances, one can reweight the sample so that it is representative along the employment, education, and race dimensions as well. Reweighting was done for all results as checks. Result were not significantly affected.

III.B. The Survey Structure

The full questionnaires of the Income Tax Survey and the Estate Tax Survey are in Online Appendix OA-2, with a link that leads to the web interfaces of the surveys. This section provides more details on some of the more important survey blocks.[8]

8. The surveys contain more questions than are exploited in the main part of the article. They are partially analyzed in the Online Appendix and leave room for future analysis using this data. Open-ended questions that extract the first-order thinking and considerations of respondents, without priming them, are also

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TABLE I

SAMPLE CHARACTERISTICS

	U.S. population	Income tax survey	Estate tax survey
Male	0.49	0.48	0.46
18–29 years old	0.24	0.23	0.22
30–39 years old	0.20	0.20	0.20
40–49 years old	0.18	0.19	0.19
50–59 years old	0.19	0.21	0.19
60–69 years old	0.19	0.18	0.19
$0–$19,999	0.13	0.15	0.16
$20,000–$39,999	0.16	0.19	0.19
$40,000–$69,999	0.21	0.23	0.24
$70,000–$109,999	0.20	0.19	0.19
$110,000+	0.31	0.24	0.20
Four-year college degree or more	0.34	0.48	0.46
High-school graduate or less	0.38	0.19	0.19
Employed	0.70	0.63	0.62
Unemployed	0.03	0.07	0.06
Self-employed	0.07	0.07	0.06
Married	0.53	0.55	0.53
White	0.61	0.76	0.76
Black/African American	0.12	0.06	0.06
Hispanic/Latino	0.18	0.06	0.07
Asian/Asian American	0.06	0.07	0.07
Democrat	0.30	0.34	0.35
Republican	0.26	0.31	0.30
Independent	0.42	0.33	0.33
Voted for Clinton at the 2016 presidential election	0.48	0.44	0.44
Voted for Trump at the 2016 presidential election	0.46	0.44	0.44
Sample size		2,784	2,360

Notes. This table displays statistics for the overall U.S. population and compares it to the characteristics of the samples of the income tax and estate tax surveys. National statistics on gender, age, income brackets, race, education, marital status, and employment status are from the IPUMS-CPS-ASEC data set for March 2019 (Flood et al. 2020). National statistics on party affiliation for March 2019 are from Gallup (2019). Statistics on the 2016 presidential election results are from Leip (2019). See Online Appendix OA-4.4 for details on how the summary statistics are constructed.

included. They ask respondents about their main considerations, perceived goals, and shortcomings about the taxes, as well as the effects they anticipate (e.g., which groups would gain or lose from a tax increase). They are analyzed in Ferrario and Stantcheva (2021).

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1. *Background Socioeconomic Questions.* I collected information on respondents' gender, age, income, highest level of education achieved, field of study in college, sector of occupation, employment status, marital status, number of children, place of residence, main source of news, and political orientation. Because it plays such an important role, I investigated the latter category in three ways. First, I asked respondents to classify themselves in terms of their views on economic policy, along a spectrum ranging from "very conservative" to "very liberal."[9] Second, I asked them what they consider their political affiliation to be (Republican/Democrat/Independent/Other/Nonaffiliated). Third, I asked them for whom they voted in the 2016 presidential elections and, if they did not vote, for whom they would have voted.[10]

2. *Knowledge.* These questions are about factual knowledge.[11] They refer among others to the level of the top federal or top state taxes, the threshold for the top income tax bracket, the top tax rates in the 1950s, the share of households in the top bracket or who pay the estate tax, the share of households paying no income tax, and the average tax rate for the median household or the top household. Respondents are also asked about the share of total income or wealth that goes to the top 1%, the share of wealth inherited, or the occupational composition of the top 1% of earners. To test whether the results may be driven by respondents' possible lack of attention or careless answers, 85% of the sample received monetary incentives for accurate answers. Misperceptions are virtually unaffected by monetary incentives, suggesting that respondents are already responding to the best of their knowledge.

3. *The Information Treatments: Short "Econ 101" Video Courses.* In each survey, a randomly chosen subsample of

9. "On economic policy matters, where do you see yourself on the liberal/conservative spectrum?" With options [Very Liberal, Liberal, Center, Conservative, Very Conservative].

10. I also dug deeper into their political participation by asking whether they were registered to vote, and why not, if they were not; and whether they regularly vote, or why they do not.

11. They are carefully designed to be intuitive and easy to understand. For instance, I ask for a number "out of 100" rather than for a percentage. I first explain what a "share" is, and how post- and pretax income are related for a given tax rate with the use of a figure and worked-out examples.

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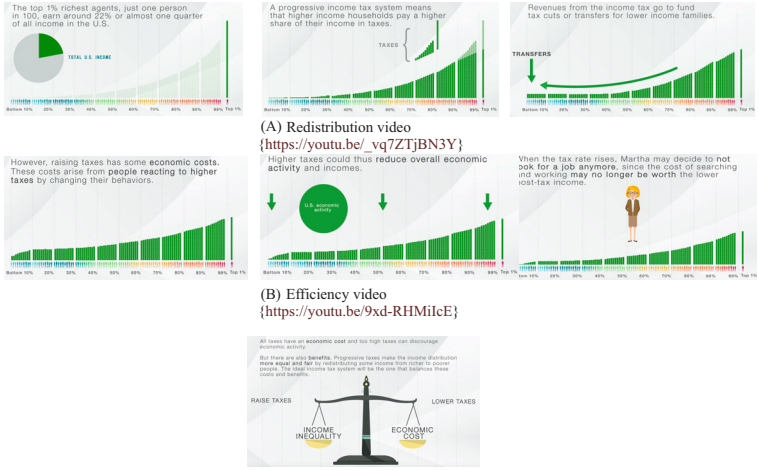

FIGURE I

Income Tax Treatment Videos

respondents was shown one of three versions of an instructional video that provided information about the policy. They are described in more detail in Section VI.D, with screenshots in Figures I and II.

4. *Reasoning about Taxes.* In this section, respondents are asked to think in more detail about how each tax policy works. What behavioral responses, efficiency effects, and effects on the broader economy will it trigger? What are the distributional consequences for different groups? What fairness concerns do people have? To give a concrete example, in the income tax module, respondents are asked to what extent they believe people will engage in the following behaviors if their taxes were to increase: save less, work less, stop working altogether, evade taxes, and so on. They are also asked which income groups will gain most or least if income taxes on high-income earners are increased and whether taxing away the income of different groups is fair or unfair.[12]

12. As explained in Online Appendix OA-2, these questions were asked in three different, randomized formulations—a randomization that is not exploited in the current article. When using these questions in regression analysis, we control for indicators for the type of formulation used.

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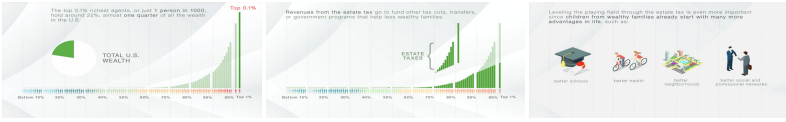
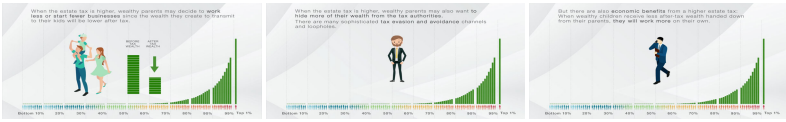


(A) Redistribution video {https://www.youtube.com/watch?v=Wz5Xr723tJk}



(B) Efficiency video {https://www.youtube.com/watch?v=pZ47JuiqoOU}

(C) Economist video {https://www.youtube.com/watch?v=qnT07wO8nVA}

FIGURE II

Estate Tax Treatment Videos

5. *Policy Views.* Respondents were asked about their views on the current tax systems (Is it fair? Are they satisfied with it?) and for opinions regarding concrete policy actions, for example, if they supported increasing the tax to fund specific programs.

6. *Views of Government.* In this section, respondents expressed their views about the role and capacity of the government to deal with the issue at hand. For instance, in the income tax module, they are asked to what extent they think the government has the tools and ability to reduce income inequality. They were also asked about their general attitudes toward government (unrelated to the specific policy) such as whether they tend to trust the government and what the scope of government intervention should be.

7. *Final Questions.* By entering the survey, respondents were informed that they were automatically enrolled in a lottery to win $1,000. At the end of the survey, respondents were asked

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whether they were willing to forfeit part of their lottery gain to receive the accurate answers to all the knowledge questions. They had to commit to forfeiting that amount before they knew whether they had won the lottery. The price of information was randomized (with possible values $1, $2, $5, and $10), allowing me to extract a willingness to pay for information. They were also asked whether they feel the survey was biased (left-wing biased or right-wing biased) and could leave open-ended feedback in a text-entry box.

All variables are comprehensively defined in Online Appendix OA-1 and more briefly in the table and figure notes.

IV. Knowledge about Income and Estate Taxes

This section presents the main findings on knowledge about the tax system and the income and wealth distributions. Table II shows some of the knowledge variables about income taxes (in Panel A) and estate taxes (in Panel B), regressed on the full array of respondent characteristics. For clarity, only the coefficients on the four characteristics that exhibit the largest heterogeneity are shown in the table, namely, the indicators for being Republican, high income, having high self-reported knowledge about tax policy, and having a college degree. The bottom rows in each panel show the average perception as well as the true values of the variables. The complete set of knowledge questions and additional heterogeneity patterns are analyzed in Online Appendix OA-3.

IV.A. Misperceptions of the Tax System

Respondents can quite accurately identify today's top tax rate. They believe it is 31% when it is 37% (column (1)). However, they believe on average that the top tax rate in the 1950s was 33%, similar to today's tax rate, when it was, in fact, much higher at 91% (column (2)). The perception of the median-income household's (column (4)) and the top-tax bracket household's (column (5)) average taxes are closer together than in actuality, implying that the level of progressivity of the tax system is misunderstood. In the spirit of schmeduling, respondents smooth out the tax schedule in their mind and overinflate the tax paid by the median household by a factor of two, while slightly underestimating the tax paid by the top bracket household (Rees-Jones and Taubinsky 2019).

Respondents also greatly underestimate the top tax bracket's income threshold (column (3)), placing it at around $188,000

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TABLE II

KNOWLEDGE, MISPERCEPTIONS, AND WILLINGNESS TO PAY FOR INFORMATION

	Tax system								Income distribution
	Top tax rate today (1)	Top tax rate in the 50s (2)	Top tax threshold (3)	Share of income paid in taxes by median households (4)	Share of income paid in taxes in top bracket (5)	Share of households in top bracket (6)	Share of households not paying income taxes (7)	Share of U.S. income earned by top 1% (8)	WTP for info (9)
Panel A: Income tax									
Republican	3.74***	– 2.52*	– 8,632.43	1.46*	6.15***	3.24***	5.97***	– 7.72***	– 0.08***
	(0.84)	(1.38)	(8,915.36)	(0.80)	(0.88)	(1.03)	(0.98)	(1.41)	(0.02)
High income	0.23	1.32	59,858.63***	– 0.00	0.15	– 1.76*	0.08	– 2.32	0.01
	(0.84)	(1.39)	(8,946.39)	(0.80)	(0.89)	(1.04)	(0.98)	(1.41)	(0.02)
Self-reported knowledge	2.78***	8.29***	24,268.44***	2.39***	3.70***	– 0.11	5.38***	5.53***	0.07***
	(0.76)	(1.26)	(8,163.86)	(0.73)	(0.81)	(0.94)	(0.89)	(1.28)	(0.02)
College degree	0.93	6.12***	39,112.78***	– 0.41	0.78	– 4.94***	0.40	6.52***	0.04**
	(0.72)	(1.19)	(7,714.02)	(0.69)	(0.76)	(0.89)	(0.85)	(1.22)	(0.02)
Descriptive statistics:									
Actual value	37	91	600,000	13	32.7	0.73	44	20	
Average perception	31	33	187,914.8	26.3	27.4	20.3	25.3	44.7	0.37
Observations	2,779	2,779	2,651	2,780	2,777	2,762	2,779	2,780	2,783

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TABLE II
CONTINUED

	Tax system				Wealth distribution				
	Estate tax rate today (1)	Estate tax rate in the 50s (2)	No. households out of 1,000 paying estate tax (3)	Exemption threshold (4)	Share of estates unrealized capital gains (5)	Share of wealth inherited (6)	Share of wealth owned by top 1% (7)	Share of wealth owned by bottom 50% (8)	WTP for info (9)
Panel B: Estate tax									
Republican	−0.54	−3.51***	16.15	−486,504.56***	−4.92***	−2.96**	−7.13**	1.64	−0.02
	(1.05)	(1.24)	(15.53)	(182,797.77)	(1.24)	(1.22)	(2.79)	(1.01)	(0.02)
High income	−0.16	0.80	−42.81***	1,111,072.07***	1.94	−1.81	1.81	−0.35	0.02
	(1.06)	(1.25)	(15.65)	(184,273.68)	(1.25)	(1.23)	(2.75)	(1.00)	(0.03)
Self-reported knowledge	4.03***	6.48***	5.81	792,758.06***	3.32***	1.74	−0.98	0.74	0.11***
	(0.97)	(1.15)	(14.34)	(168,747.59)	(1.14)	(1.13)	(2.50)	(0.91)	(0.02)
College degree	0.00	4.33***	−50.69***	818,974.82***	1.22	2.23**	8.65***	−2.82***	0.05**
	(0.92)	(1.08)	(13.57)	(159,750.72)	(1.08)	(1.07)	(2.38)	(0.86)	(0.02)
Descriptive statistics:									
Actual value	40	77	0.7	11,400,000	55	≈ 50	41.8	2.5	
Average perception	33	29	364.1	2,428,139.6	45.7	41.9	49.1	12.5	0.40
Observations	2,350	2,335	2,357	2,357	2,354	2,357	695	695	2,360

Notes. The values of the dependent variables in columns (1)–(8) are deviations of the respondents' answers from the "Actual value" reported in the lower sets of rows under "Descriptive statistics"; a positive sign on the "Average perception" indicates that, on average, respondents overestimate the actual value, and a negative sign means they underestimate it. The dependent variable in column (9) is an indicator variable equal to 1 if the respondent is willing to pay the randomized amount of money ($1, $2, $5, or $10) to receive the correct answers to all the knowledge questions (see Section III). The data sources for the actual values of these variables are described in Online Appendix OA-3, Tables OA-1 and OA-2. Standard errors are in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$.

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annual income instead of the actual $600,000 annual income. Accordingly, respondents believe that the top tax rate applies to many more households (20%) than it actually does (0.73%). They also tend to mentally smooth the share of households in extreme tax brackets: they underestimate the share of households that do not pay income taxes (believing it is 25% when the reality is 44%, as shown in column (7)) but overestimate the share of households in the top bracket (column (6)).

When it comes to the estate tax in Panel B, and, as was the case for the income tax, respondents are relatively accurate about the tax rate that applies above the exemption threshold today (column (1)), but they are unaware of how high the 1950s tax rate was and assume it was close to today's rate (column (2)). The next two columns show that respondents believe on average that the share of households paying the estate tax is 364 out of 1,000 households (the median perception is 300 out of 1,000). The reality is less than 1 out of 1,000 households. Qualitatively (but not quantitatively) consistent with this stark misperception is that respondents believe that the estate tax exemption threshold is much lower than it actually is: the average perception is $2.4 million (the median is lower than $0.5 million) while the reality is $11.4 million per person.

The fact that respondents starkly overestimate the share of people who pay the top tax rate and the estate tax could mean that they may (mistakenly) consider themselves more likely to be directly affected by these policies targeted at the top earners and wealth holders—now or in the future—than is actually the case.[13]

IV.B. Misperceptions of the Underlying Income and Wealth Distributions

Table II, Panel B, column (8) indicates that respondents strongly overestimate the share of income going to the top 1% by 25 percentage points on average. Respondents appear to be more accurate on the wealth distribution at the top (in Panel B, column (7)), where they believe that the wealth share of the top 1% is 49% (as opposed to the 42% estimated in recent work, which is itself subject to considerable on-going debate about whether it is an upper bound). Yet respondents also believe that the bottom

13. As explained below, the share of respondents who feel that the estate tax has important direct effects on their lives is 30%, which is interestingly close to respondents' perceived share of households who are subject to the estate tax.

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50% holds 12% of wealth, which is much higher than the actual 2%. Respondents thus inflate the two extremes of the wealth distribution. Note that respondents' beliefs about which professions compose the top 1% richest people in the United States do not fit reality for all categories (see Online Appendix Figure OA-6). Respondents tend to think that among the top 1% richest people, there are more entrepreneurs, arts, media and sports personalities, teachers, and scientists than there truly are. This could be because these professions are more often seen in the media. Conversely, respondents tend to underestimate the share of executives/managers and physicians in the top 1%.

Respondents are relatively accurate in their perception of the share of estates that are unrealized capital gains that have never been taxed (46% relative to 55% in reality, in Panel B, column (5)). Furthermore, they believe that 42% of wealth is inherited (column (6) of Panel B). Unlike for the variables about the tax system, there is considerable uncertainty around this number, with current estimates by economists ranging from 34% to 45% (Kopczuk and Lupton 2007) to 56%–64% (Alvaredo, Garbinti, and Piketty 2017).

IV.C. Who Knows More?

Higher-income respondents are more aware of variables that affect the top of the distribution, such as the top tax rate, the top tax bracket, the exemption threshold for the estate tax, and the share of households that pay the estate tax. They do not, however, differ in their misperceptions of the other variables. People with higher self-reported knowledge (i.e., who say they know more about tax policy) generally do have smaller misperceptions on most (but not all) margins. Those with a college degree are generally more accurate than those without, except that they tend to overestimate the shares of income and wealth of the top (but are more accurate on the lower share of wealth of the bottom 50%).

Republican respondents in general tend to think that taxes are higher and more progressive than Democrats do: they perceive a higher top tax rate, a higher share of income paid by households in the top bracket, a higher share of households in the top bracket, and a higher share not paying any income tax. They also think that the estate tax exemption threshold is lower (however, both Democrats and Republicans overestimate the share of households that pays the estate tax to the same extent). Republicans are even

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less likely than Democrats to be aware of the high top tax rates or estate taxes in the 1950s.[14] They believe that a lower share of income goes to the U.S. top 1% and are hence more accurate than Democrats on this issue. In addition, they think that the share of wealth that is inherited and the share of wealth owned by the top 1% are lower. These results are in line with a "polarization of reality" (Alesina, Miano, and Stantcheva 2020)—that is, polarization even in the perception of facts.[15]

IV.D. Willingness to Pay for Correct Information

The last column in each panel reports an indicator for whether the respondent is willing to pay a randomized price to see the accurate answers to all the knowledge questions (see Section III). On average, around 40% of respondents are willing to pay to learn more about the income and estate tax and the income and wealth distributions.

To interpret findings on the demand for information here, note that it is partially a private good, since respondents are directly affected by tax policy. Online Appendix Figure OA-11 shows that 53% of all respondents feel that the income tax has important direct effects on their own lives; 30% think so for the estate tax. In addition, respondents may have strong social preferences and thus care about being aware of the current tax system or the distributions of income and wealth. But information could also be viewed in part as a public good if better informed voters are able to make better policy choices for the economy as a whole.

Republican respondents are less likely than Democrats to be willing to pay for accurate information on income taxes, even conditional on the (randomized) price for information and their own income. That is not the case for estate taxes. Those with more self-reported knowledge and those who have a college degree are generally more willing to pay for information for the income and

14. There is an interesting contrast between perceptions of the present and past here. Republicans are more likely to overestimate today's top tax rate, while also underestimating the past tax rate, thus perhaps casting the past in a more favorable light (from the point of view of supporters of lower taxes). This lack of awareness that the United States used to be a higher tax country can contribute to the rhetoric of high taxes being against "American ideals."

15. This may also be consistent with the motivated reasoning in Bénabou and Tirole (2006, 703), whereby individual beliefs are "(consciously or not) shaped as much by their own functional goals and psychological needs as by actual data: to a certain extent, people believe what they want to believe."

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the estate tax. Although this sounds paradoxical at a first glance, it is consistent with findings in earlier work on other issues such as immigration (Alesina, Miano, and Stantcheva 2019, 2020). It also offers a possible channel for the perpetuation of misinformation, if those people who know less are also the ones least willing to pay for new information. Beyond these, there are no significant heterogeneities in willingness to pay for information across respondents.[16]

V. Reasoning about Taxes: Efficiency, Distribution, and Social Preferences

This section presents the reasoning of respondents on the efficiency effects and distributional effects of taxes, as well as their social preferences related to taxes. All variables are explained in the main text and table or figure notes, and in more detail in Online Appendix OA-1.

V.A. *Perceived Behavioral Responses and Distortionary Effects of Taxes*

1. *Income Taxes.* Table III shows the perceived behavioral responses to income taxation. The regressions systematically include controls for respondents' gender, age, race, income bracket, having children, education, having an economics-related major, employment status, self-reported policy knowledge, self-reported social class, political affiliation, and indicator variables for all treatments. The first panel shows the coefficients on some of the key covariates, namely, political affiliation (Republican), age groups, and income bracket. Panel B shows the main effects of the video treatments, where the branches are denoted by Redistribution, Efficiency, or Economist. The bottom panel provides descriptive statistics. The control group designates respondents who did not receive any video course.[17] In Online Appendix OA-6, I test for differential effects by gender or political affiliation.

16. Note in Online Appendix Figure OA-11 and Table OA-14 that those who self-report more knowledge also feel more directly affected by each policy in their own lives, which is perhaps why they know more in the first place. Republicans are more likely to say that the estate tax has important direct effects on their lives. There is no heterogeneity by education.

17. In addition, the control group is only respondents who saw the neutral formulation of the questions when the question was asked differently, see the questionnaire in Online Appendix OA-2.

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TABLE III

PERCEIVED BEHAVIORAL RESPONSES TO INCOME TAXATION

	Evade taxes		Work less		Stop working		Spouse stop working		Move state		Be less entrepreneurial	
	High earners (1)	Middle class (2)	High earners (3)	Middle class (4)	High earners (5)	Middle class (6)	High earners (7)	Middle class (8)	High earners (9)	Middle class (10)	High earners (11)	Middle class (12)
Panel A: Personal characteristics												
Republican	−0.04*	0.08***	0.14***	0.14***	0.09***	0.11***	0.13***	0.13***	0.10***	0.17***	0.18***	0.19***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Female	−0.05***	−0.09***	0.00	0.01	−0.01	−0.00	0.01	0.01	−0.05***	0.02	−0.01	0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age 30–49	−0.01	−0.02	−0.06**	−0.06**	−0.06**	−0.04*	−0.03	−0.05*	−0.05**	−0.04*	−0.03	−0.04*
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)
Age 50–69	−0.02	−0.02	−0.13***	−0.11***	−0.12***	−0.13***	−0.08***	−0.11***	−0.10***	−0.11***	−0.06**	−0.12***
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)
Middle income	0.01	−0.02	−0.02	0.00	−0.02	−0.01	−0.03	−0.02	0.02	0.00	−0.03	−0.02
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
High income	0.02	−0.00	−0.04	−0.03	−0.01	−0.02	−0.03	−0.04*	−0.02	−0.00	−0.04*	−0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Panel B: Video treatment effects												
Redistribution	0.00	0.04	−0.02	0.06*	−0.01	0.06**	−0.04	0.07**	−0.02	0.04	−0.03	0.08**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Efficiency	0.08***	0.07**	0.16***	0.27***	0.08**	0.17***	0.14***	0.20***	0.04	0.12***	0.14***	0.19***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Economist	0.06***	0.05*	0.17***	0.28***	0.04	0.17***	0.12***	0.22***	0.04*	0.11***	0.15***	0.18***
	(0.02)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)

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TABLE III
CONTINUED

	Evade taxes		Work less		Stop working		Spouse stop working		Move state		Be less entrepreneurial	
	High earners (1)	Middle class (2)	High earners (3)	Middle class (4)	High earners (5)	Middle class (6)	High earners (7)	Middle class (8)	High earners (9)	Middle class (10)	High earners (11)	Middle class (12)
Panel C: Descriptive statistics												
Control mean	0.80	0.60	0.48	0.39	0.33	0.28	0.43	0.32	0.78	0.64	0.50	0.45
Male control mean	0.84	0.66	0.50	0.40	0.33	0.31	0.42	0.32	0.80	0.63	0.52	0.46
Democrat control mean	0.84	0.53	0.45	0.34	0.33	0.25	0.41	0.29	0.75	0.59	0.41	0.39
Observations	2,782	2,782	2,783	2,781	2,781	2,781	2,783	2,781	2,783	2,782	2,782	2,782

Note. The dependent variables are indicator variables equal to 1 if the extent to which a respondent thinks that an increase in the federal personal income tax would encourage middle-class or high-income individuals toward the behaviors listed ranges from a moderate amount to a great deal. All variables are defined in more detail in Online Appendix OA-1. Regressions in all panels include controls for sex, age, race, income class, having children, education, having an economics-related major, employment status, self-reported policy knowledge, self-reported social class, political affiliation, and indicator variables for all treatments. Only some of these coefficients are reported due to space constraints. Panel A shows the coefficients on age 30–49 and 50–69, middle and high income, and being Republican. Omitted categories are age 18–29, low income, and being Democrat. Panel B reports the treatment effects of the video courses relative to the control group that saw no video. Panel C reports the mean of the dependent variables for respondents who saw the generic question formulation and no video ("Control mean"), and separately for male respondents ("Male control mean") and Democrats ("Democrat control mean"). Standard errors are in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$.

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The dependent variables in Table III are indicator variables equal to 1 if respondents say that an increase in income taxes will change the listed behavior by a "moderate amount" to a "great deal." What do we actually know about these effects of taxes in reality? The empirical evidence is not perfect, and economists disagree on the magnitudes and importance of these margins of adjustments to taxes. The goal is thus not to pinpoint quantitatively people's mistakes, but to see how they reason about various groups' tax adjustments and use information on their perceived prevalence and ranking of margins of adjustment that can be compared to the empirical evidence to date.

Overall, respondents think that the margins along which people respond most strongly to taxes are evasion, moving states, and entrepreneurship. It is interesting that these are relatively less-studied responses in the empirical literature and have been, for the latter two at least, only more recently incorporated into the core tax theory models. Work on mobility responses to taxation (Kleven, Landais, and Saez 2013; Kleven et al. 2014, 2020, among others) shows them to be significant, but not typically large for the general population. They are, however, more substantial for high-income earners and for high-skilled professions involving only little location-specific human capital (Moretti and Wilson 2014, 2017; Akcigit, Baslandze, and Stantcheva 2016). On entrepreneurship, there is evidence that tax progressivity matters (Cullen and Gordon 2006, 2007), as well as that outcomes from entrepreneurship (e.g., innovation) can be significantly affected by taxes (Akcigit and Stantcheva 2020; Akcigit et al. forthcoming).

Labor supply responses on the intensive or extensive margins are typically the core ones in the optimal tax literature. Intensive-margin responses include working fewer hours or exerting less work effort. Extensive-margin responses are, for example, switching out of the labor force. The empirical literature has shown that intensive-margin elasticities are typically small, but that extensive-margin elasticities at lower income levels are higher (for good summaries see Eissa and Liebman 1996; Chetty, Friedman, and Saez 2013; Hoynes 2019; Hoynes and Rothstein 2019). Respondents do consider working less to be a consequence of higher taxes, but a less prevalent one: 48% of respondents believe that high earners will work less and 39% believe middle-class earners will work less. Their perceived likelihood of people earning higher incomes or the middle class stopping work altogether are even lower. Finally, around 43% believe that high-income people are

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likely to have their spouse stop working in response to taxes and 32% believe so about a middle-class person. Interestingly, the empirical evidence shows that secondary earners (usually women) tend to be more elastic to taxes than primary earners (usually men), especially along the extensive margin (see Blau and Kahn 2007, 2017; Gelber and Mitchell 2012; Gelber 2014).

In addition, respondents generally perceive behavioral responses to income taxes as stronger for higher-income earners than for middle-class earners, especially when it comes to the margins of evasion, having one's spouse stop working, or moving states. Thus, 80% of respondents from the control group believe that high-income earners are likely to evade more taxes if their taxes were increased, 43% believe high earners will have their spouse stop working, and 78% think high-income earners are likely to move states in search of lower taxes. The corresponding perceptions for middle-class taxpayers are 60%, 32%, and 64%, respectively. Regarding earnings responses at the top, the evidence suggests that they are indeed a mix of effects that include avoidance and evasion (Saez, Slemrod, and Giertz 2012; Piketty, Saez, and Stantcheva 2014).

Table IV, columns (1)–(3) show perceptions on the broader potential efficiency costs of income taxes. In column 1, the dependent variable is equal to one if respondents believe that taxes on higher incomes would hurt the economy. Only around 31% of respondents think they would. Columns 2 and 3 consider the share of respondents who think there is a Laffer effect from taxes on people with high incomes and the middle class respectively, i.e., whether reducing tax rates on these groups can, in fact, boost tax revenues and decrease the fiscal deficit. Quite a few respondents believe such Laffer effects exist, mostly when it comes to middle-class taxes (65% of respondents think a Laffer effect can occur for the middle class; 48% think so for high-income earners).

There is no heterogeneity by income in these perceived efficiency effects. However, conditional on income and political affiliation, older respondents think that people respond less strongly to taxes.

The share of Republicans who perceive strong behavioral responses to taxes along each dimension is consistently 30% to 50% higher than that of Democrats. The one exception is the perceived evasion of high-income earners, which is slightly weaker among Republicans. Fifty-five percent and 46% of Republicans, respectively, believe that high-income and middle-class earners

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TABLE IV

EFFICIENCY COSTS OF INCOME AND ESTATE TAXES

	Income tax			Estate tax	
	↑ Taxes on high incomes hurt economy (1)	Laffer effect high incomes (2)	Laffer effect middle class (3)	↑ Estate tax hurt economy (4)	Laffer effect (5)
Panel A: Personal characteristics					
Republican	0.35***	0.18***	0.02	0.15***	0.16***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
Female	– 0.04**	0.06***	0.05***	– 0.03	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age 30–49	– 0.03	0.01	0.00	0.04	– 0.04
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
Age 50–69	0.01	0.02	0.04	0.03	0.04
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Middle income	0.02	– 0.03	– 0.00	– 0.05*	– 0.00
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
High income	0.04*	– 0.03	– 0.01	– 0.07***	– 0.04
	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)
Panel B: Video treatment effects					
Redistribution	– 0.01	0.00	– 0.05	– 0.01	0.00
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Efficiency	0.14***	0.03	0.01	0.05	0.05
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Economist	0.06***	– 0.03	0.00	0.07**	– 0.00
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)
Panel C: Descriptive statistics					
Control mean	0.31	0.48	0.65	0.28	0.46
Male control mean	0.35	0.46	0.63	0.31	0.43
Democrat control mean	0.15	0.39	0.61	0.23	0.33
Observations	2,782	2,780	2,781	2,358	2,356

Note. The dependent variables are indicator variables equal to 1 in the following cases: ↑ *Taxes on high incomes hurt economy*: the respondent believes that increasing income taxes on high-income households would hurt economic activity; *Laffer effect high incomes/middle class*: the respondent believes that tax cuts on high-income households or on the middle class would decrease the deficit in the long run; ↑ *Estate tax hurt economy*: the respondent believes that increasing the federal estate tax on wealthy households would hurt economic activity; *Laffer effect*: the respondent believes that cuts to the estate tax for wealthy households would decrease the deficit in the long run. See the notes to Table III. Standard errors are in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$.

will work less in response to increased taxes, compared to 45% and 34% of Democrats. Another large difference is on the entrepreneurship margin: 63% of Republicans believe there will be less entrepreneurship among high incomes (as compared with 41% of Democrats) and 54% believe the middle class will be less entrepreneurial (relative to 39% of Democrats). In Table IV, the partisan gap grows even larger. Many more Republicans (52%) than Democrats (15%) perceive negative effects on the economy

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from taxing high-income earners. Accordingly, Republicans also think there are more powerful Laffer effects for high-income earners. Yet the two political groups are not significantly different when it comes to Laffer effects for the middle class: 61% of Democrats and 70% of Republicans believe that tax cuts on the middle class will pay for themselves. There is thus bipartisan consensus, somewhat ironically, on a phenomenon whose existence has not yet been convincingly established in the literature.

Taken together, these results suggest that respondents do believe there are some behavioral changes induced by taxes, but overall, less than half of all respondents perceive any of these responses to be prevalent, except for evasion and cross-state mobility. They correctly consider some margins to be weaker (e.g., the intensive-margin labor supply), but also overestimate the prevalence of others (e.g., moving across states). Respondents believe that higher-income households are more elastic than middle-class ones, and a sizable share believes that cutting taxes on high incomes will "pay for itself." However, this does not translate into a generalized belief that taxes on high incomes will hurt the economy. This may be because respondents perceive rich people as being a smaller group, whose changes in behavior in the face of tax increases—even if strong and even if they can lead to lower revenue—are not enough to shape economic performance overall. Consistent with this, the share of respondents who think that middle-class tax cuts will pay for themselves is higher than the share who thinks so about high-income tax cuts, despite people expressing the belief that behavioral changes of each particular middle class are less pronounced than those of top earners. An additional reason for this could be that respondents anticipate other channels through which middle-class tax cuts can boost revenues, such as demand-side fiscal stimulus multiplier effects.[18]

2. *Estate Tax.* Table V shows the perceptions of behavioral responses to the estate tax. Respondents are asked about the effects on wealthy individuals, as well as on currently young people. Questions about the latter group serve to elicit people's perceptions on anticipation effects, as the currently young have time to plan their labor supply, savings, and other decisions in response to

18. The latter could be perceived as particularly strong for the middle class, given evidence for lower marginal propensities to consume for high-income households.

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TABLE V

PERCEIVED BEHAVIORAL RESPONSES TO THE ESTATE TAX

	Evade taxes		Work less		Stop working		Spouse stop working		Move state		Be less entrepreneurial		Save less	
	Wealthy (1)	Young (2)	Wealthy (3)	Young (4)	Wealthy (5)	Young (6)	Wealthy (7)	Young (8)	Wealthy (9)	Young (10)	Wealthy (11)	Young (12)	Wealthy (13)	Young (14)
Panel A: Personal Characteristics														
Republican	−0.01	0.01	0.06**	0.08***	0.00	0.03	0.03	0.09***	0.04**	0.07***	0.06**	0.14***	0.05*	0.07***
	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)
Female	−0.03*	−0.02	−0.03*	−0.02	−0.07***	−0.04**	−0.06***	−0.03	−0.07***	−0.00	−0.03	−0.01	−0.02	−0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age 30–49	0.00	−0.01	−0.03	−0.05	−0.03	−0.04	−0.00	−0.03	−0.02	−0.05*	−0.04	−0.09***	−0.01	−0.07**
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Age 50–69	−0.02	−0.00	−0.11***	−0.14***	−0.07**	−0.14***	−0.09***	−0.11***	−0.10***	−0.09***	−0.15***	−0.15***	−0.05	−0.07**
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Middle income	−0.01	−0.01	−0.03	−0.06**	−0.06**	−0.04*	−0.04	−0.06**	−0.01	0.00	−0.01	0.00	−0.01	−0.01
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
High income	0.00	0.00	−0.03	−0.06**	−0.05*	−0.01	−0.04	−0.04*	0.04	0.03	−0.01	−0.02	−0.00	0.01
	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Panel B: Video treatment effects														
Redistribution	0.05*	−0.04	0.06	0.01	0.08**	0.02	0.01	−0.01	−0.01	−0.01	0.11***	0.03	0.02	−0.03
	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Efficiency	0.04*	−0.00	0.26***	0.04	0.08**	0.03	0.06*	0.03	−0.05*	−0.04	0.24***	0.09**	0.22***	0.04
	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)
Economist	0.03	−0.03	0.27***	0.07**	0.13***	0.07**	0.10***	0.07**	−0.02	−0.02	0.23***	0.07**	0.20***	0.06*
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Panel C: Descriptive statistics														
Control mean	0.88	0.78	0.50	0.53	0.39	0.37	0.57	0.46	0.83	0.73	0.50	0.52	0.59	0.61
Male control mean	0.88	0.74	0.52	0.51	0.44	0.39	0.58	0.47	0.85	0.74	0.53	0.51	0.60	0.59
Democrat control mean	0.89	0.76	0.51	0.53	0.43	0.34	0.57	0.41	0.80	0.68	0.48	0.41	0.59	0.56
Observations	2,357	2,356	2,356	2,356	2,357	2,355	2,355	2,355	2,356	2,357	2,356	2,356	2,356	2,356

Note. The dependent variables are indicator variables equal to 1 if the extent to which a respondent thinks that an increase in the federal estate tax would encourage the very wealthy individuals or the young (and not necessarily high-income) people toward the behaviors listed ranges from "a moderate amount" to a "great deal." See the notes to Table III. Standard errors are in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$.

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the estate tax. The strongest perceived responses to an estate tax increase overall are, again, evasion and moving states, followed closely by saving less, being less entrepreneurial, and having one's spouse stop working. Respondents consider the currently wealthy on average more likely than the young to evade (a striking 88% of respondents believe so for the wealthy and 78% believe so for the young), more likely to have their spouse stop working (57% versus 46%), and much more likely to move state (83% versus 73%). On the other hand, they perceive the currently young as only slightly more likely to work less, be less entrepreneurial, or save less.

Consistent with the findings on the income tax, Table IV, column (4) highlights that only 28% of respondents think that increasing the estate tax on wealthy households would hurt economic activity. Column (5) shows that 46% of respondents believe that decreasing the estate tax could improve tax revenues. As for the income tax, these findings suggest that while many respondents think that wealthy households react to the estate tax and around half of all respondents think that decreasing the estate tax on wealthy households could generate more revenues, less than one-third believe that increasing it could hurt the economy overall.[19]

In the third panel of Table V, Republicans and Democrats are aligned on their perceived (large) behavioral responses for the wealthy. Republicans, however, perceive youth responses to be on average stronger along the margins of working less, having their spouse stop working, and being less entrepreneurial. In Table IV, we can see that Republicans are more likely to believe that a higher estate tax would hurt the economy (37% compared to 23% of Democrats) and that there are Laffer effects from decreasing the estate tax (56% of Republicans versus 33% of Democrats).

V.B. Perceived Distributional Effects of Taxes

The top panel of Figure III summarizes the perceived distributional gains and losses from either cutting the income tax on

19. The reasoning could be as for the income tax: although respondents believe that the wealthy respond to the estate tax and that their responses may be strong enough to generate Laffer effects, they do not think that the wealthy are sufficiently numerous or that their activity change is sufficiently influential to hurt overall economic performance.

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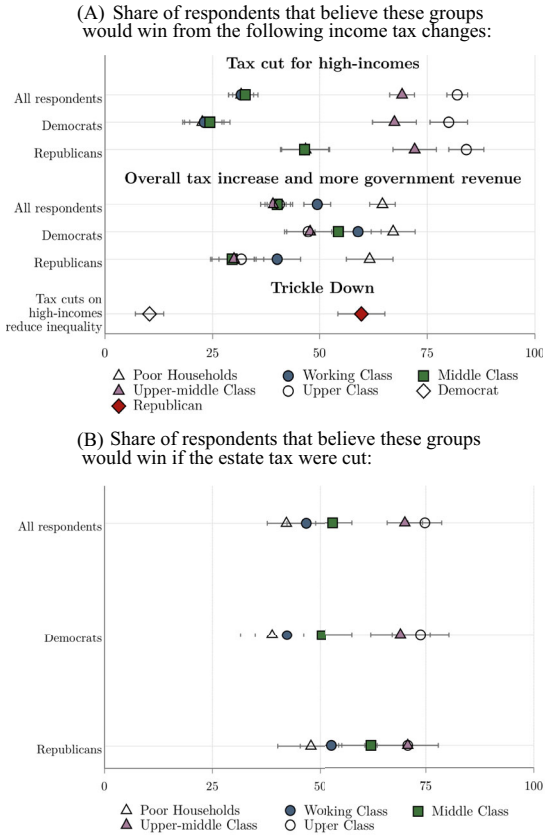

FIGURE III

Distributional Effects of Income and Estate Taxes

The figure shows respondents' perceived distributional effects of tax reforms. In Panel A, the top part "Tax cut for high incomes," shows respondents' perceived effects from a tax cut on high incomes. The first row depicts the share of all respondents who think that the groups indicated in the legend (e.g., "Poor households," "Upper Class") would win if taxes on high incomes were cut. The following two rows show the shares among Democrats and Republicans who think these groups would benefit from a high-income tax cut. The middle set of rows "Overall tax increase and more government revenue," shows the shares of respondents who think that each group of people would win if overall taxes were increased and more revenue was generated; again the shares are shown for respondents overall, as well as among Democrats and Republicans separately. The bottom part, "Trickle down," shows the share of Republicans and the share of Democrats who think that lowering taxes on wealthy people and corporations would ultimately do more to reduce the income differences between poor and rich families than raising them. Panel B shows the share of respondents that think the groups indicated in the legend would gain if the estate tax were cut. Only respondents who saw no video treatment are included. Online Appendix Tables OA-21 and OA-23 show detailed regression results for these variables.

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high earners (top part) or increasing overall taxes (middle part).[20] The top two parts of the figure represent the share of respondents who think that each of the following groups will mostly gain from these tax changes: poor, working-class, middle-class, upper-middle-class, and upper-class households. On average, 32% of respondents believe that lower-class households will benefit from a tax cut on high earners, and 82% believe so about the upper class. Sixty-five percent believe that the lower class will benefit from overall tax increases and this share decreases monotonically to 41% for the upper class. The final row considers whether respondents believe in trickle-down economics, that is, whether lowering income taxes will on balance do more to reduce income inequality than increasing them. Overall, only 32% of respondents believe in the existence of trickle-down effects, consistent with the share who believes that lower-class households will gain if taxes on high earners are reduced. The bottom panel of Figure III shows the perceived distributional gains and losses from cutting the estate tax. Seventy-five percent of respondents believe the upper class would benefit. This share decreases to 42% for the lower class.

There are some partisan differences in the perceived distributional effects of tax changes. Republicans are more likely than Democrats to think that all groups below the upper-middle class will benefit from tax cuts on high earners but agree with Democrats that the upper-middle and upper classes will realize the largest gains. Republicans are less likely than Democrats to believe that anyone would gain from an overall tax increase that raises extra revenues to be used by the government. Finally, Republicans are much more ardent believers in trickle-down effects from income taxes: 60% of Republicans compared to only 10% of Democrats believe in them.

V.C. Social Preferences and Social Fairness Concerns

This section explores some of the factors that determine respondents' social preferences as captured by the social marginal welfare weights in Section II and dives into their social fairness concerns related to income and estate taxation. Perceptions of inequality, which could also affect social preferences for taxation, were already shown in Table II.

20. Online Appendix Tables OA-21 and OA-23 follow the usual more detailed format.

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TABLE VI

SOCIAL PREFERENCES AND FAIRNESS CONSIDERATIONS ABOUT THE INCOME TAX

	Wealth distribution unfair (1)	Inequality serious issue (2)	People rich due to luck (3)	High income entitled to keep their income (4)
Panel A: Personal characteristics				
Republican	– 0.42***	– 0.38***	– 0.34***	0.36***
	(0.02)	(0.02)	(0.02)	(0.02)
Female	0.04**	– 0.00	0.04**	– 0.02
	(0.02)	(0.02)	(0.02)	(0.02)
Age 30–49	0.01	0.05*	0.02	– 0.02
	(0.02)	(0.03)	(0.03)	(0.02)
Age 50–69	0.00	0.01	0.04	– 0.05**
	(0.02)	(0.03)	(0.03)	(0.03)
Middle income	– 0.03	– 0.06**	– 0.03	0.02
	(0.02)	(0.02)	(0.02)	(0.02)
High income	– 0.04**	– 0.06**	– 0.09***	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)
Panel B: Video treatment effects				
Redistribution	0.05	0.10***	– 0.01	– 0.01
	(0.03)	(0.03)	(0.03)	(0.03)
Efficiency	0.03	0.02	0.03	0.01
	(0.03)	(0.03)	(0.03)	(0.03)
Economist	0.02	0.06**	0.05*	0.00
	(0.02)	(0.03)	(0.02)	(0.02)
Panel C: Descriptive statistics				
Control mean	0.70	0.48	0.60	0.30
Male control mean	0.68	0.49	0.59	0.32
Democrat control mean	0.92	0.69	0.78	0.10
Observations	2,781	2,781	2,780	2,780

Note. The dependent variables are indicator variables equal to 1 in the following cases: *Wealth distribution unfair*: the respondent thinks that money and wealth in the United States should be more evenly distributed; *Inequality serious issue*: the respondent believes that income inequality is a serious or very serious issue; *People rich due to luck*: the respondent believes that a person is rich because they had more advantages than others, rather than because they worked harder than others; *High income entitled to keep their income*: the respondent believes that high-income individuals are entitled to keep a very large share of their income and should not have to pay high taxes, even if that means less government revenue is available to help low-income families make ends meet. See the notes to Table III. Standard errors are in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$.

1. *Income Tax.* Table VI shows that 70% of the respondents think that "money and wealth in the U.S. should be more evenly distributed," and almost half of all respondents think that income inequality is a serious or very serious issue. Column (3) indicates that 60% of respondents believe that someone is rich mainly due to luck rather than effort. Consistent with these considerations, just

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30% of respondents agree with the statement that high-income individuals are entitled to keep a very large share of their income and should not have to pay high taxes even if that means less government revenues.

Partisan gaps are much larger on these social fairness issues than on efficiency or distributional considerations. Ninety-two percent of Democrats and 42% of Republicans believe that wealth and money should be more evenly distributed in the United States. Sixty-nine percent of Democrats and 25% of Republicans perceive inequality to be a serious or very serious issue. Seventy-eight percent of Democrats as opposed to 41% of Republicans believe that a person is rich because they had more advantages than others. Fifty-five percent of Republicans and 10% of Democrats believe that high-income earners are entitled to keep their income.

There appears to be some level of self-interest, with respondents that are in the higher-income group less likely to believe that the wealth distribution is unfair, that inequality is a serious issue, or that people are rich due to luck. They are also more likely to believe that people earning high incomes are entitled to keep their income. Nevertheless, the gap between high- and lower-income respondents is not that large. Thinking back to the discussion in Section II, respondents clearly also have other concerns than pure self-interest when it comes to social fairness considerations about taxes.

2. *Estate Tax.* Recall from Section II that normative considerations on the estate tax are complex and depend on whether one takes the point of view of the parents or that of the children. How do respondents view these thorny normative issues?

Table VII, columns (1) and (2) show that 64% of the respondents believe that wealth should be more evenly distributed, and 46% deem wealth inequality to be a serious problem. In column (3), we can see that, very consistent with the income tax results, 62% of respondents believe that someone is wealthy mainly due to luck rather than due to effort.

The table also shows more nuanced views on estate taxation. A first group of questions prompts respondents to take the point of view of parents (columns (4) and (5)). Sixty-one percent of respondents believe it is unfair to tax the estate of wealthy parents who worked hard to accumulate their wealth, and 47% of respondents believe it is unfair to do so if wealthy parents themselves had inherited their wealth in the first place. A second group of

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TABLE VII

SOCIAL PREFERENCES AND FAIRNESS CONSIDERATIONS ABOUT THE ESTATE TAX

				Parents' side:		Children's side:		Trade-off:
				Unfair tax estates of:		Fair that children from wealthy families:		
	Wealth distribution unfair (1)	Inequality serious issue (2)	Person wealthy due to luck (3)	Hard workers (4)	Wealthy heirs (5)	Access better amenities (6)	Inherit more (7)	Parents should pass on wealth even if unequal for children (8)
Panel A: Personal characteristics								
Republican	– 0.39***	– 0.45***	– 0.26***	0.25***	0.25***	0.20***	0.24***	0.27***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)
Female	0.06***	– 0.01	0.07***	0.04*	0.03	– 0.09***	– 0.03	– 0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age 30–49	0.01	0.00	0.02	– 0.01	– 0.01	0.02	0.07**	0.02
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Age 50–69	– 0.01	– 0.05	– 0.00	0.01	0.04	0.01	0.11***	0.03
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Middle income	0.01	– 0.01	– 0.01	0.01	– 0.02	0.03	0.01	– 0.00
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
High income	– 0.02	0.00	– 0.07***	0.02	0.01	0.06**	0.04	0.04
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)

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TABLE VII
CONTINUED

				Parents' side:		Children's side:		Trade-off:
				Unfair tax estates of:		Fair that children from wealthy families:		
	Wealth distribution unfair (1)	Inequality serious issue (2)	Person wealthy due to luck (3)	Hard workers (4)	Wealthy heirs (5)	Access better amenities (6)	Inherit more (7)	Parents should pass on wealth even if unequal for children (8)
Panel B: Video treatment effects								
Redistribution	0.04	0.02	0.01	0.01	– 0.05	0.03	– 0.09**	– 0.06*
	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Efficiency	– 0.06*	– 0.02	0.07*	0.03	0.03	0.01	– 0.03	0.02
	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Economist	0.02	0.01	– 0.00	– 0.02	– 0.03	0.03	– 0.05	– 0.08**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Panel C: Descriptive statistics								
Control mean	0.64	0.46	0.62	0.61	0.47	0.32	0.53	0.58
Male control mean	0.62	0.50	0.58	0.60	0.45	0.36	0.53	0.55
Democrat control mean	0.85	0.64	0.73	0.51	0.38	0.19	0.36	0.49
Observations	2,358	2,358	2,358	2,357	2,358	2,357	2,357	2,356

Note. The dependent variables are indicator variables equal to 1 in the following cases: *Wealth distribution unfair*: the respondent believes that money and wealth in this country should be more evenly distributed among a larger percentage of the population; *Inequality serious issue*: the respondent believes that wealth inequality in the United States is a serious or very serious problem; *Person wealthy due to luck*: the respondent thinks that a person is wealthy because they had more advantages than others, rather than because they worked harder than others; *Unfair tax estates of hard workers*: the respondent believes that it is somewhat unfair, unfair, or very unfair to tax the estate of wealthy people who have worked hard and saved a lot in order to pass on wealth to their children; *Unfair tax estates of wealthy heirs*: the respondent believes that it is somewhat unfair or very unfair to tax the estate of people who are wealthy because they have inherited a lot from their parents; *Fair that children from wealthy families access better amenities*: the respondent believes that it is somewhat fair or very fair that children born in very wealthy families have access to better amenities; *Fair that children from wealthy families inherit more*: the respondent believes that it is somewhat fair or very fair that children born in very wealthy families inherit much more than children born in less wealthy families; *Parents should pass on wealth even if unequal for children*: the respondent believes that wealthy parents should be able to pass on all of her wealth to her children; as a result, some children will start their own life with much larger wealth just by virtue of being born in a richer family. See the notes to Table III. Standard errors are in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$.

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questions (columns (6) and (7)) makes respondents consider the perspective of the heirs (children). Only 32% of respondents believe it is fair that children from wealthy families have access to better amenities, and 53% that it is fair that those children inherit more. Thus, although respondents in general believe that it is unfair for children to start with different opportunities in life, they are more favorable to equalizing access to amenities than to taxing parental estates at death.

The last fairness question (column (8)) makes respondents explicitly think about the trade-off between fairness from the point of view of the children and that of the parents. Slightly more than half (58%) of respondents agree more with the statement that wealthy parents should be able to pass all of their wealth onto their children, even if that means that "some children will start their own life with much larger wealth just by virtue of being born in a richer family" rather than with the statement that "children should not start their life with much larger wealth just by virtue of being born in a richer family," and that wealth passed on should be taxed even if some parents have worked hard to build it. Hence, there is a lot of disagreement between respondents on whether the fairness arguments regarding parents' rights to transfer wealth should dominate those regarding children's rights to inherit wealth.[21]

Turning to the partisan gaps in views, around 85% of Democrats and 36% of Republicans believe that wealth is distributed unfairly, and 64% of Democrats as opposed to 19% of Republicans consider wealth inequality a serious or very serious problem. Consistently with these large divides, Republicans are strikingly more likely than Democrats to say it is fair that wealthy families pass on wealth to their children tax-free if they worked hard for it (73% relative to 51%) or if they inherited it (56% relative to 38%); that children from wealthy families have access to better amenities (44% versus 19%) or inherit more (70% versus

21. The timing of the actual wealth transmission depends on the age of parents and children. The way the questions are framed is vague on the actual timing but does unambiguously imply that parental wealth shapes opportunities for children from early on, even before wealth is formally transmitted. The wording chosen implies that at least part of parental wealth is "available" to their children in some form or another throughout their life. This can take the form of direct spending on the children early on, large gifts, and actual wealth transmission later on. Although grandchildren are not discussed, respondents may also imagine them as possible beneficiaries of the family wealth (under the heading "children").

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36%); and support on balance tax-free wealth transmission (71% versus 49%).

Older respondents are slightly more likely to say that it is fair that children from wealthy families inherit more. There is, however, no clear difference in these social fairness considerations between lower- and higher-income respondents.

VI. Putting It All Together: Views on Tax Policies

Which of all these considerations and parameters that enter the tax formulas in Section II and are elicited in the survey matter for policy views? The answer is not straightforward because they are all correlated, and the direction of causality is unclear. Indeed, reasoning may be endogenous to policy views, if people try to find justification for their policy and partisan views. I therefore look at the question from different angles. I start with a high-level analysis of which reasonings about different aspects of tax policy and final policy views tend to appear together in clusters. I study the correlation between final policy views and the variables that capture all the factors entering respondents' desired tax rates. I also analyze how much of the large partisan gap can be explained by these components. Finally, I exploit the experimental variation in the video treatments, each of which shifts a different set of the factors entering the tax formulas.

VI.A. Classifying Respondents by Their Tax Policy Views

Can broad types of respondents be identified based on their views about the effects of taxes and their preferred tax policy? To answer this question, I apply an unsupervised, clustering machine learning algorithm based on the latent Dirichlet allocation.[22] The algorithm identifies probability distributions over answers and assigns them to respondent "profiles" based on their frequency: a high probability for a given answer indicates that it is very salient for this profile. The list of answers with the highest probabilities correspond to answers that frequently occur together. Respondents are then sorted into these profiles based on how well their answers correspond to it. In both

22. The algorithm applies only to multiple-choice questions (i.e., closed and nonnumerical/continuous answer questions). Such a method was recently used by Draca and Schwarz (2021) to identify ideologies in survey data.

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surveys, the clustering algorithm identifies two major profiles of respondents.

For the income tax, the first profile believes in redistribution, sees inequality as a serious issue, and emphasizes the unfairness of the economic and tax system. Typical responses for this profile include: "The money and wealth in this country should be more evenly distributed among a larger percentage of the people," "A person is rich because she or he had more advantages than others," and "The share of total U.S. income that goes to the top 1% in the U.S. increased a lot over the past 30 years." The second profile does not believe that the tax system is unfair or that inequality is a serious issue. Typical answers here include "A person is wealthy because she or he worked harder than others," "The share of total U.S. income that goes to the top 1% in the U.S. increased somewhat over the past 30 years."

Online Appendix Figure OA-17 highlights the individual characteristics that predict belonging to each profile. By far the biggest predictor of being in either profile is political affiliation, with Republicans much more represented in the second profile, even conditional on the full set of individual characteristics. The only other two covariates that are significantly, but much more weakly, correlated with being in this profile are income (positively) and age (negatively).

On the estate tax, the two main profiles can be described as, on the one hand, respondents who do not worry about the effects of the estate tax but focus on the severity of inequality and, on the other hand, respondents who feel that most people are badly affected by the estate tax and that the estate tax system is unfair. The latter type of respondent also has starker misperceptions about the estate tax. Example answers in the first profile include "I do not feel personally affected by the federal estate tax," "There should be a federal estate tax in the U.S.," and "The money and wealth in this country should be more evenly distributed among a larger percentage of the people." Common answers for the second profile are "The federal estate tax is mostly taxing assets that have already been taxed and thus leads to double taxation," "I do not know what the stepped-up cost basis at death is," "Every individual's estate is subject to the federal estate tax at death," and "There should not be a federal estate tax in the U.S." Again, the most important predictor of belonging to the second profile is being a Republican, followed by having completed at most a high-school education.

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VI.B. Descriptive Statistics on Tax Policy Views

The surveys ask detailed questions on policy views. To summarize them, I construct a policy index that increases when respondents support more progressive taxes and are more favorable to government intervention to reduce inequality. More precisely, the income tax policy index is based on the indicator variables for whether the respondent thinks that progressive taxation is a good tool to reduce income inequality, whether they support increasing taxes on high-income households to expand programs targeted to low-income families or increasing investments in the United States, and finally whether they believe the government should be responsible for reducing income differences between the rich and the poor. It is constructed by taking the average of the standardized variables (i.e., the z-scores constructed by subtracting the control group mean and dividing by the control group standard deviation) and then standardizing again. The estate tax policy index combines four indicator variables for whether the respondent thinks the estate tax should exist, whether it should be increased, whether they believe the estate tax is a good tool to reduce inequality, and finally whether they believe the government should be responsible for reducing intergenerational wealth transmission.

The second set of rows in Figure V labeled "Individual characteristics" depicts the coefficients on select individual covariates from a simple regression of the policy view indices on the full set of individual covariates. Political affiliation has by far the strongest correlation with policy views. Older respondents seem to be less inclined toward redistribution through taxes than younger respondents, and women are less favorable to redistribution than men are. College-educated respondents are more supportive of income and estate taxes.[23]

Some questions are not included in the policy indices because they are less about respondents' fundamental views on tax policy

23. The gap in redistributive views by age could be either an age or a cohort effect, as well as a mix of the two. Peterson, Smith, and Hibbing (2020) find that political attitudes are remarkably stable over the long run by age, but when they do shift, liberals are more likely to become conservatives with age than vice versa. Ashok, Kuziemko, and Washington (2015) find that the elderly are part of the groups that have most moved against income redistribution. Furthermore, they show that this trend among the elderly appears to be uniquely American. A possible explanation is that older Americans worry that redistribution will come at their expense, in particular through cuts to Medicare.

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and more about their opinions on the current system, such as whether they are satisfied with it, or whether they think that high-income people or the middle class currently pay their fair share in taxes. Online Appendix Tables OA-31–OA-39 show all individual policy view variables, regressed on the full range of individual characteristics, treatment indicators, and views on the efficiency, distributional, and fairness effects of respondents.

I briefly summarize some patterns on policy views by political affiliation. Eighty-four percent of Democrats believe a progressive income tax to be an important tool to reduce income inequality, while only 48% of Republicans do. Republicans are more likely to be satisfied with the current status quo, perhaps because there was a Republican president during the time of the survey. Similar shares of respondents (40%) on both sides of the political spectrum are satisfied with the current estate tax system and think it is fair, but the way the dissatisfied want to modify it differs substantially by political affiliation. Indeed, when asked to think more normatively about whether the estate tax should exist and whether it should be increased, Republicans are significantly less likely to agree. Sixty-five percent of Democrats against 37% of Republicans believe the estate tax is a good tool to reduce inequality, and 39% and 21%, respectively, believe the government is somewhat responsible for reducing intergenerational wealth transmission.

Only 20% of the sample thinks that high-income earners pay more than their fair share in taxes; this share is only 9% among Democrats versus 38% among Republicans. On the contrary, 64% believe the middle class pays more or much more than its fair share; there is also broad agreement on the middle class's tax burden across the political spectrum. When it comes to the role of government, 63% of Democrats, 23% of Republicans, and 43% of all respondents believe the government should have a responsibility in reducing inequality.

1. *How Tax Revenues Are Spent.* How tax revenues are spent may shape respondents' views on tax reform. Respondents are thus asked whether they would support government spending on a set of redistributive and infrastructure programs. Figure IV shows the share of respondents who are willing to support increased spending on the program listed.[24]

24. To make respondents think carefully about the fact that these programs do cost money, the trade-off between revenues and taxes is made salient to the respondents: they are asked whether they would be willing to increase taxes on

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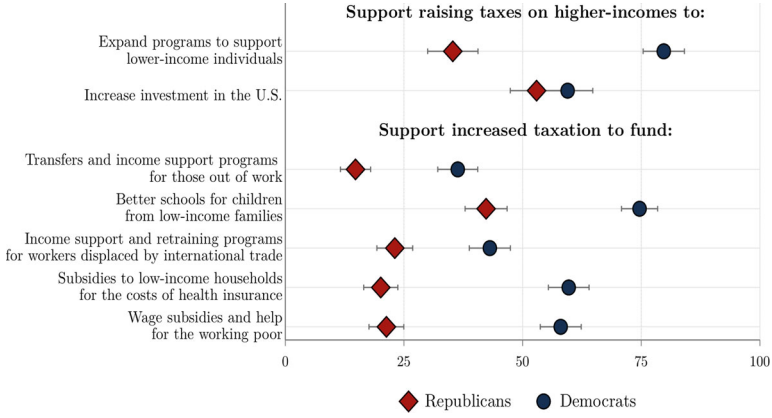

FIGURE IV

Support for Increasing Taxes Depending on How Revenues Are Spent

This figure depicts the share of Democrat and Republican respondents who support raising taxes on high-income households (in the top two rows), or increasing taxes overall (the bottom rows) to expand spending on the programs listed on the left axis. The questions represented in the first two rows were only asked in the income tax survey. The remaining questions were asked in both the income and estate tax surveys; the shares represented are based on the pooled control group respondents from these two surveys.

Political affiliation of the respondent is by far the most important predictor of such preferences: left-wing respondents are systematically stronger supporters of increasing both spending and taxation to pay for it. Democrats are much more in favor of increasing taxation if it goes to fund more generous spending in income support programs, transfers to those out of work, retraining programs for workers displaced by international trade, welfare programs, healthcare subsidies for low-income households, wage subsidies, and help for the working poor. Yet different uses of tax revenues generate very different levels of willingness to increase taxes. Respondents overall exhibit a much stronger support for increased spending on "equality of opportunity" through better schools for children from low-income families (76% of Democrats and 43% of Republicans). The partisan gap is also much smaller on infrastructure and investment spending with 59% of Democrats and 48% of Republicans supporting it.

higher incomes to fund the increase in spending (in the first two rows), or are explicitly told that increased funding would mean more taxes or reduced spending in other areas, whereas decreased spending would be followed by reduced taxes or increased spending elsewhere (for the remaining rows).

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VI.C. A Decomposition of Policy Views

Section II presented the major factors that one may expect to shape tax policy views and that were subsequently elicited in the survey. How much does each of these factors matter for policy views? The panels labeled "Mechanisms" in Figure V show the coefficients from a regression of the policy view indices for the income tax (Panel A) and estate tax (Panel B) on the full set of individual covariates and on variables that capture all the factors described in the model. Some of them are based on a single survey question, while others are indices summarizing several questions on the same issue.[25] For the sake of space, out of the full set of individual characteristics included, only the "Republican" indicator's effect is reported in this panel. These variables are qualitative and do not have a natural unit or scale, as they capture various views and reasonings. To make them more comparable, all individual variables are standardized into z-scores, and indices are standardized averages of the z-scores of their component variables. We can thus see which factors are significantly correlated with tax policy views, even conditional on the array of individual covariates.

For the income tax, in Panel A, the factors are:[26] (i) an index of whether a respondent overestimates the level of taxes (based on the factual knowledge questions from Section IV); (ii) an index increasing in the strength of perceived behavioral changes for middle-class and high earners (based on Table III); (iii) an index reflecting whether respondents think that "higher taxes hurt the economy," which combines the belief that there are Laffer effects for high-income and middle-class tax cuts, and that increasing taxes on high earners will be detrimental to the economy (from Table IV); (iv) an index capturing the belief in trickle-down, i.e., that increasing taxes can hurt everyone, but that lowering taxes on high incomes can be beneficial to all (based on the perceived distributional impacts from Figure III, Panel A); (v) an index capturing whether the respondent "trusts the government" and thinks

25. Because these factors are correlated with each other, Online Appendix Figure OA-15, shows the correlations with policy views when the variables are included one by one. The signs and relative magnitudes remain similar. Online Appendix Figure OA-16 shows that the coefficients on the factors are also similar if the controls for individual characteristics are excluded.

26. For a precise definition of each variable and index, see Online Appendix OA-1.

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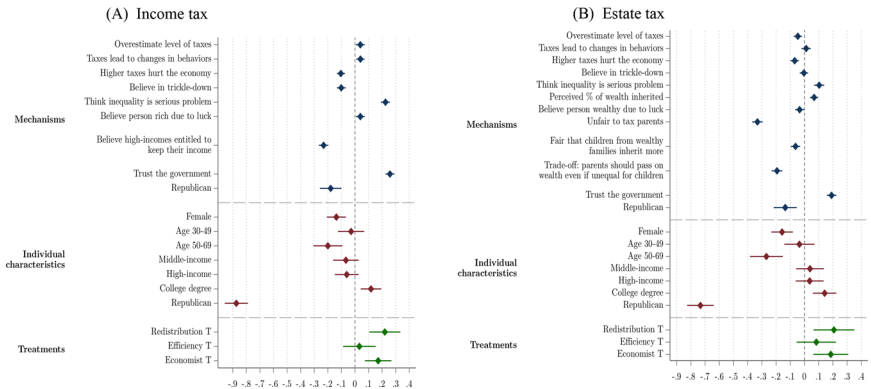

FIGURE V

Decomposing Tax Policy Views

In this figure, the dependent variable in Panel A is the income tax policy index; the dependent variable in Panel B is the estate tax policy index. Depicted are coefficients on three different types of variables and from two different specifications. In the set of rows labeled "Mechanisms," we show the coefficients on the factors described in Section II from the regressions of each policy index on these factors, controlling for the full array of individual covariates. We do not show the coefficients on all individual-level controls, except for the coefficient on the indicator for being Republican, which is used to highlight that the partisan gap shrinks when controlling for these factors. The second and third sets of rows, "Individual characteristics" and "Treatments," are based on a regression of the policy index on (only) treatment indicators and on the full set of individual covariates (the factors from the panel "Mechanisms" are not included here). The figure shows some select coefficients on individual characteristics in the set of rows "Individual characteristics." The treatment effects are shown in the bottom set of rows "Treatments."

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the government's scope is broad; (vi) an index for whether respondents think inequality is a serious problem, combining both their perceptions of inequality (from Table II) and their views about whether inequality is problematic and wealth and money should be distributed more equally (from Table VI); (vii) indicators for whether respondents believe that high incomes are entitled to keep their incomes; and (viii) whether luck is the main reason people become rich (from Table VI).[27]

Respondents are more likely to support progressive income taxes if they think that inequality is a serious problem, if they trust the government, do not believe that people earning high incomes are entitled to keep their income, and do not believe in trickle-down economics. The view that higher taxes hurt the economy also leads to lower support for progressive income taxes, but the correlation with perceived behavioral changes is mildly positive. This is consistent with the discussion in Section V.A that perceived behavioral changes do not automatically translate into significant perceived economic costs for respondents. Unless respondents believe that the resulting economic costs are important, their policy views are not affected by their perceived behavioral changes. Recall also that only a minority of respondents believe that taxing high incomes would hurt the economy. Hence, while this belief is impactful, it is not widespread. In terms of magnitudes, a respondent who believes that inequality is a serious problem or who trusts the government will still, on balance, be more likely to support higher and more progressive taxes, even if they think this would hurt the economy. The most important factors shaping views on the income tax thus appear to be related to social preferences and views of government.

For the estate tax, in Panel B, the variables that proxy for most of the components of the model are very similar, but the social fairness concerns based on Table VII are different. They include the perceived share of wealth that is inherited, an index for whether it is unfair to tax parents (regardless of whether they have worked hard or were themselves rich heirs), whether it is fair that children from wealthy families inherit more, and whether, when confronted with the trade-off between parents' and children's perspectives explained in Section V.C, respondents favor the parental perspective.

27. To see the effects on the policy index of the individual variables making up these factors, see Online Appendix Tables OA-29 and OA-30.

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As was the case for the income tax, perceiving inequality as a serious issue and trusting the government are strongly positively correlated with support for the estate tax. Thinking that higher taxes will hurt the economy has a negative but also smaller in magnitude correlation. Those who think that an estate tax is unfair from the point of view of parents, that it is fair that children from wealthy families inherit more and have better opportunities, and who side with parents when considering the trade-off are significantly less likely to support the estate tax. Respondents who perceive a higher share of wealth to be inherited, rather than self-made, are slightly more likely to support the estate tax. Taken together, these factors' correlations with policy views are the largest in magnitude. The complexity of the estate tax fairness considerations can be clearly seen as well. Two respondents who hold the (conflicting) beliefs that it is, on the one hand, unfair to tax parents, but on the other hand, unfair to let children receive different bequests can have very different support levels for the estate tax depending on how they end up resolving this conflict and which side they land on in the trade-off between parents and children. Just asking people about whether it is fair to tax parents or to let children have unequal inheritances is not enough to understand policy views; it also matters how they resolve the trade-off between these conflicting fairness views.

Furthermore, respondents who overestimate the level of the estate tax are less likely to support it. Recall from Section IV that many respondents do overestimate the share of households who pay the estate tax and underestimate the exemption threshold. For both the income and the estate tax, political affiliation remains highly significant after adding these mechanism variables into the regressions, although its effect is starkly reduced by 75% or more.[28] Thus, these factors capture a very significant part (but not all) of the partisan effect.

1. *Explaining Partisan Gaps.* Can we explain the partisan gap in policy views through differences in the perception of the factors entering the tax formulas? Because all these variables are correlated with each other, it is instructive to perform a Gelbach

28. The reduction is relative to the full partisan gap, equal to the coefficient in the regressions that do not include these indices (see the panels "Individual characteristics" explained above, as well as Online Appendix Tables OA-31 and OA-34).

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decomposition (Gelbach 2016). This method shows what share of the total partisan gap in policy views between Republicans and Democrats goes through each of the factors. The total partisan gap is given by the regression coefficient on the Republican indicator when no mechanism variables are included, as in the panel "Individual characteristics." The unexplained part of the total partisan gap is equal to the coefficient on the Republican indicator that persists, after all factors have been added (in Panel "Mechanisms"). The unexplained shares are 18% for the income tax and 19% for the estate tax.

In Figure VI, Panels A and B, each bar indicates the share of the partisan gap that is explained by a given factor.[29] Republicans' lower support for progressive income taxes can be accounted for mainly by their lower trust in government (23% of the partisan gap); the perception that inequality is not a serious problem (21%); the belief that people earning high incomes are entitled to keep their income (21%); their belief in trickle-down economics (8%); and, to a lesser extent, the view that higher taxes hurt the economy (7%).

For the estate tax, the partisan gap is mainly shaped by the view that it is unfair to tax parents (27% of the gap), that parents should be allowed to pass on wealth, even if that means unequal chances for children (14%), and that wealth inequality is not a serious issue (12%). As a group, these variables related to social preferences and fairness concerns account for more than half of the partisan gap. Lower trust in government accounts for one-fifth of the gap. Perceived efficiency costs play a more minor role in defining partisan differences. The belief that higher taxes hurt the economy explains 4% of the gap and the view that tax changes lead to behavioral responses is insignificant.

Overall, views about the government and social preferences are most critical in explaining the partisan gap. Naturally, the

29. The variables are the same as the ones defined for Figure V, but some are prefaced with a "do not" in front simply to make reading easier. Recall that the partisan gap is negative (i.e., Republicans have a lower support for higher and progressive tax policy). A given factor may contribute to widening the partisan gap if (i) it is positively correlated with support for taxes and lower among Republicans (e.g., "Is inequality a serious problem?") or if (ii) it is negatively correlated with support for taxes, but higher among Republicans (e.g., "High-income people are entitled to keep a large share of their incomes"). In the former case, I simply label the variable with a negative statement, so that it can be read as the reason Republicans support lower and less progressive taxes is that this statement is more likely true for them (i.e., the original variable is lower among them).

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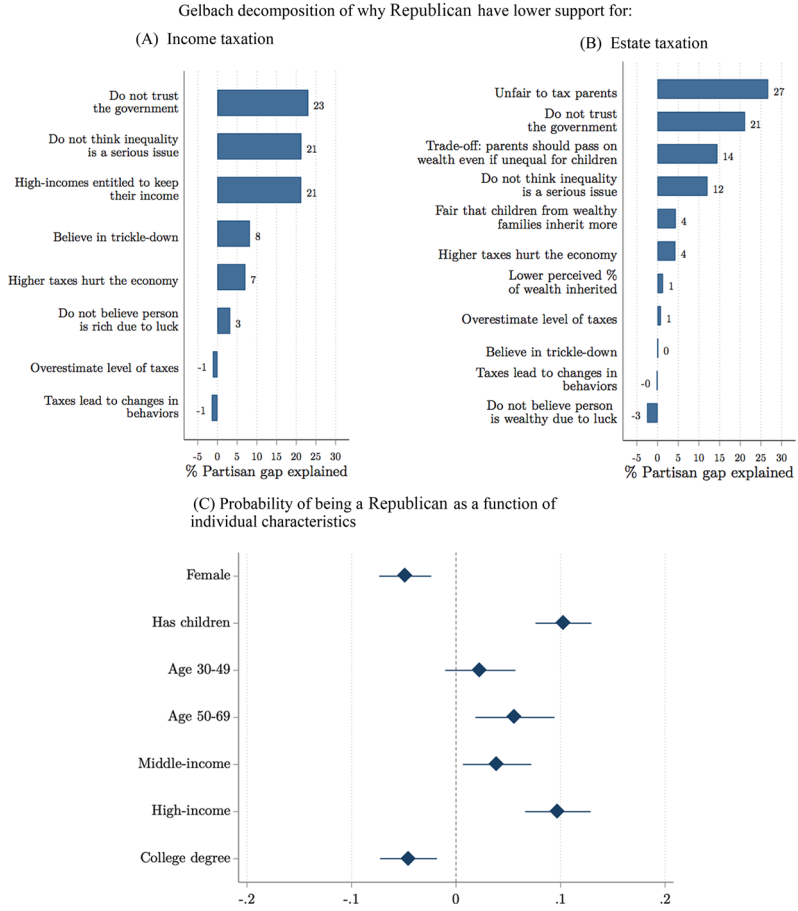

FIGURE VI

Explaining the Partisan Gap

Panels A and B report the Gelbach decomposition of the partisan gap in the policy views index for the income and estate tax respectively, following Gelbach (2016). Each bar indicates the share of the partisan gap explained by each of the factors, as explained in Section VI.C. Panel C shows the regression coefficients where the dependent variable is an indicator variable equal to 1 if the individual is a Republican on individual characteristics.

direction of causality is unclear: political affiliation is not an immutable characteristic and can itself be an outcome of a given set of views. Conversely, party affiliation can shape people's mental narratives and rhetorics.

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One question is whether Republicans and Democrats have very distinct characteristics that may be at the root of their views on taxes. In Panel C, I regress the indicator for being Republican on the full array of individual characteristics. Male, higher-income, and older respondents are slightly more likely to be Republicans. However, as the second panel of Figure V showed, the effect of political affiliation dominates the effect of either income, gender, or age.

2. *The Role of Factual Knowledge.* In Online Appendix Tables OA-32 and OA-35, we can see that misperceptions of the current tax system do play a specific role, as conjectured in Section II when it comes to support for the status quo and reforms. Respondents who tend to overestimate the level of income and estate taxes are more likely to believe that the tax system is already fair and to be satisfied with it. They are less likely to support higher taxes to finance any sort of spending. Those who tend to overestimate the level of the estate tax are less likely to say that the estate tax should be increased. Thus, in general, misperceptions are more correlated with views on the status quo rather than with more fundamental views such as whether progressive income or estate taxes are important tools to reduce inequality. This suggests that factual information on the current tax system could perhaps improve support for more progressive tax reforms.

To sum up, the most important concerns for both the income and estate tax are about social preferences and social fairness concerns, as well as views of the government. These factors also best explain the partisan gap. Efficiency-related concerns are relatively less important. The experimental evidence presented next confirms these correlational patterns on the relative importance of efficiency and redistribution concerns.

VI.D. Experimental Treatment Effects

1. *The Treatment Video Courses.* Some screenshots from the treatment video courses are in Figures I and II, with links to the videos in the notes. The Redistribution video for the income tax starts by showing respondents facts on the distribution of income in the United States: the share of earnings of the top 10%, the bottom 90%, and the top 1%. It then describes how a progressive tax system can reduce income inequality by taking income from the higher incomes and redistributing it to lower

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incomes. It also makes a basic declining marginal utility of income argument, namely that, in general, one may think that "one dollar taken from a rich person" implies a lower loss to them than the gain experienced by a poorer person receiving that dollar. It is otherwise silent on explicit fairness issues.

The Efficiency treatment focuses on the distortionary effects of taxes. It stresses the possible costs in terms of reduced economic activity and suggests different channels through which this can happen, such as (i) people working less (the video shows the example of John, who decides not to take a second job); (ii) people hiding more of their income from the tax authorities; (iii) people deciding to stop looking for a new job (the video shows the example of Martha, who may consider stopping her job search because working may no longer be worth the lower posttax pay); and (iv) people deciding to move to a state with lower taxes. It does not, however, provide quantitative evidence on these channels and is careful to emphasize that these are only potential effects. The video then sums up: "To sum up, all taxes have an economic cost and higher taxes can discourage economic activity. The more revenues we try and raise, the more likely there will be a negative impact on total income."

The Economist treatment shows these two videos one after the other and ends with an animation of a scale that weights the benefits from taxation (less inequality and more revenues) against the economic costs. The scale moves from one side to the other, while the respondent is told that the right tax system is the one that balances benefits and costs. These three videos are 2:08, 2:40, and 4:25 minutes long.

For the estate tax survey, the Redistribution treatment video course also starts by showing facts about the distribution of wealth across the U.S. population, for the top 10%, the bottom 90%, and the top 0.1%. The video explains how wealth transmission from parents to their children can shape the opportunities and wealth of children through no fault of their own, and that unequal wealth can persist for many generations. It states that the estate tax could "reduce the transmission of wealth and level the playing field between children from poor and wealthy families." The revenues raised from the estate tax can help fund programs for lower-income families. The video also explains that leveling the playing field for inheritances may be important given the evidence that children from wealthy families already start with some advantages in life, such as better schools, networks, and amenities.

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The Efficiency video focuses on the efficiency implications of the estate tax. It reviews several possible economic costs: (i) "wealthy parents may decide to work less or start fewer businesses"; (ii) wealthy people could also decide to save less and instead spend more; and (iii) wealthy people could decide to evade or avoid estate taxes more. It then turns to the possible efficiency benefits from an estate tax: First, children from wealthy families could possibly work more as they will inherit less wealth on net. Second, spreading wealth more equally could improve opportunities for children from poorer families who could make valuable contributions to society that may otherwise be lost, such as starting businesses. The Economist treatment again brings the Efficiency and Redistribution treatments together and emphasizes that the right level of the estate tax would balance its costs and benefits. These three videos are 1:56, 1:46, and 3:36 minutes long.

Neither the income tax nor the estate tax treatments take a stand on what the right level of taxes is or whether taxes should be increased relative to their current levels. They also do not provide information on the current tax system.

2. *Effects of the Video Courses.* The effects of the videos on reasoning and perceptions of efficiency or redistribution effects can be viewed as first-stage effects, while the effects on policy views are second-stage effects. The latter are depicted in the panel "Treatments" at the bottom of Figure V.

For the income tax, there are significant first-stage effects, as the perceived mechanisms are very malleable to information (Tables III and IV). The Efficiency and Economist treatments increase the perceived behavioral responses to taxation. They also strengthen the view that taxes on high incomes hurt the economy. The Redistribution and Economist treatments increase the view that inequality is a serious issue. On policy views, the Redistribution and Economist courses have significant effects, both increasing support for a progressive income tax system. The effects are economically meaningful: the effect of the Redistribution treatment on the policy view index is around 23% of the gap between Democrats and Republicans. The Economist treatment's effect represents around 18% of the partisan gap. Thus, despite the heightened awareness of efficiency costs due to the Economist treatment, respondents end up focusing more on the redistribution considerations. The effects on policy views of the Efficiency

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treatment are insignificant, despite its significant first-stage effects on the perceptions of efficiency costs. These results confirm that efficiency concerns are not the major driver of tax policy views.

For the estate tax, the Efficiency and Economist videos have significant first-stage effects, increasing the perceived behavioral responses for the wealthy and, to a much lesser extent, for the young (Table V). The Redistribution treatment makes people more likely to think that higher inheritances for children in wealthy families are unfair and less likely to side with parents when considering the trade-off. The latter effect also holds for the Economist treatment. On policy views, the Redistribution and Economist treatments improve support for the estate tax. The treatment effects are equivalent to roughly 30% of the gap in support between Democrats and Republicans in the control group. The Efficiency treatment has no significant effect on policy views.

Overall, the experimental results suggest that redistribution concerns may shape people's views on taxes more than efficiency concerns do. When the trade-off between the two is explained (as in the Economist treatment), the redistribution concerns dominate.

3. *Heterogeneous Treatment Effects.* Online Appendix Tables OA-33 and OA-36 systematically explore heterogeneous treatment effects by political affiliation. There is only one significant heterogeneity in treatment effects on policy views between Democrats and Republicans: the Efficiency treatment has a very mild negative effect on support for the estate tax for Republicans, but a positive effect on Democrats. This could be because, as explained already, the efficiency treatment for the estate tax also emphasizes possible efficiency gains, not just costs. There are some minor, nonsystematic differential patterns on the first-stage outcomes.[30]

30. For instance, on the income tax, Republican respondents are particularly sensitive to the balanced Economist treatment. Republican respondents who see this video course believe less in trickle-down and in Laffer effects for the middle class. They are less likely to say that high-income earners are entitled to their income, and more likely to believe that the wealth distribution is unfair. For the estate tax, the effects of the Efficiency and Economist treatments on the perceived behavioral effects are weaker for Republicans who already perceive them to be higher to start with.

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VII. Conclusion

This article explored how people reason about income and estate taxes. The use of large-scale social economics surveys in the United States permits going beyond simply asking about support for or opposition to policies: we can understand people's reasonings better, identify gaps in information, and disentangle entrenched fairness considerations from efficiency or distributional concerns.

A decomposition of policy support shows that social preferences and views of the government are the most important drivers, with efficiency concerns playing a more minor role. These correlational patterns are confirmed by the experimental results. Even when the trade-off between redistribution and efficiency is explained, redistribution considerations dominate. Furthermore, there are large partisan gaps both in final policy views and at every step of the reasoning underlying policy views. Even perceptions of factual features of the tax system seem polarized (the "polarization of reality"). The partisan gaps in policy views are mostly due to the same factors that were shown to drive policy views, namely, differences in social preferences and social fairness considerations, as well as views of the government, rather than differences in the perceived efficiency effects of taxes.

The findings on the large partisan gaps at all steps of the chain of reasoning explain why it is not surprising that tax policy is one of the policies that is most often revised when there is a new government and why there is continuous disagreement about it. It also gives some indication of why the policy debate often uses the buzzwords of "fairness," which, as can be seen in my results, is very much in the eye of the beholder. An open question is whether social preferences and beliefs are the primitives that lead to tax policy views and voting behavior; or whether individuals simply follow the partisan views of their party elites and then produce statements about beliefs and social preferences that legitimate their policy conclusions. Although causality from political affiliation to policy views cannot be established in this article, the analysis does show that policy views go hand in hand with an encompassing and internally consistent chain of reasoning that is heterogeneous across party lines and much more homogeneous within. People do not just hold policy views: they hold a worldview consistent with them.

Furthermore, the heterogeneity shown suggests that the typical voter's preferences and reasoning may be quite different from

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the typical population preferences and reasoning, given differences in voting rates by demographic and income groups. For example, since older and higher-income citizens support less redistribution and have higher turnout, voters' preferred levels of redistribution may be lower than those of the typical person. On the contrary, more-educated citizens appear to be more supportive of redistribution and are also more likely to vote. In any case, in light of heterogeneous and often low voter turnout, it is valuable to use surveys to study the views of the overall population.

Future research could investigate the reasoning underlying other policies in greater depth. In addition, the effects of the video courses do suggest that explanations that are balanced and nonpartisan may be useful as a first step in elevating the policy debate and could be further developed. It would be valuable to keep exploring how citizens can learn more about economic policy issues and, importantly, in a way that explains the functioning of these policies rather than simply giving factual information. Indeed, as highlighted in this article, factual knowledge about the exact numbers and statistics of a given policy may be accurate or inaccurate but is not the most important predictor of policy views. Reasoning about policies can differ across people, especially across political groups, and may matter much more in shaping policy views.

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SUPPLEMENTARY MATERIAL

An Online Appendix for this article can be found at *The Quarterly Journal of Economics* online.

DATA AVAILABILITY

Data and code replicating the figures and tables in this article can be found in Stantcheva (2021) in the Harvard Dataverse, https://doi.org/10.7910/DVN/OAHUIP.

REFERENCES

Akcigit, Ufuk, Salome Baslandze, and Stefanie Stantcheva, "Taxation and the International Mobility of Inventors," *American Economic Review*, 106 (2016), 2930–2981.

Downloaded from https://academic.oup.com/qje/article/136/4/2309/6363701 by University of California, Berkeley/LBL user on 05 January 2022

Akcigit, Ufuk, John Grigsby, Tom Nicholas, and Stefanie Stantcheva, "Taxation and Innovation in the 20th Century," *Quarterly Journal of Economics* (forthcoming).
Akcigit, Ufuk, and Stefanie Stantcheva, "Taxation and Innovation: What Do We Know?," NBER Working Paper no. 27109, 2020.
Alesina, Alberto, Armando Miano, and Stefanie Stantcheva, "Immigration and Redistribution," NBER Working Paper no. 24733, 2019.
———, "The Polarization of Reality," *AEA Papers and Proceedings*, 110 (2020), 324–328.
Almås, Ingvild, Alexander W. Cappelen, and Bertil Tungodden, "Cutthroat Capitalism versus Cuddly Socialism: Are Americans More Meritocratic and Efficiency-Seeking than Scandinavians?," *Journal of Political Economy*, 128 (2020), 1753–1788.
Alvaredo, Facundo, Bertrand Garbinti, and Thomas Piketty, "On the Share of Inheritance in Aggregate Wealth: Europe and the USA, 1900–2010," *Economica*, 84 (2017), 237–260.
Ashok, Vivekinan, Ilyana Kuziemko, and Ebonya Washington, "Support for Redistribution in an Age of Rising Inequality: New Stylized Facts and Some Tentative Explanations," *Brookings Papers on Economic Activity*, (2015), 367–433.
Ballard, Charles L, and Sanjay Gupta, "Perceptions and Realities of Average Tax Rates in the Federal Income Tax: Evidence from Michigan," *National Tax Journal*, 71 (2018), 263–294.
Bartels, Larry M., "Homer Gets a Tax Cut: Inequality and Public Policy in the American Mind," *Perspectives on Politics*, 3 (2005), 15–31.
Bénabou, Roland, and Jean Tirole, "Belief in a Just World and Redistributive Politics," *Quarterly Journal of Economics*, 121 (2006), 699–746.
Blau, Francine D., and Lawrence M. Kahn, "Changes in the Labor Supply Behavior of Married Women: 1980– 2000," *Journal of Labor Economics*, 25 (2007), 393–438.
———, "The Gender Wage Gap: Extent, Trends, and Explanations," *Journal of Economic Literature*, 55 (2017), 789–865.
Blendon, Robert J., John M. Benson, Mollyann Brodie, Richard Morin, Drew E. Altman, Daniel Gitterman, Mario Brossard, and Matt James, "Bridging the Gap between the Public's and Economists' Views of the Economy," *Journal of Economic Perspectives*, 11 (1997), 105–118.
Blinder, Alan S., and Alan B. Krueger, "What Does the Public Know about Economic Policy, and How Does It Know It?," *Brookings Papers on Economic Activity*, 35 (2004), 327–397.
Cappelen, Alexander W., Ranveig Falch, and Bertil Tungodden, "Fair and Unfair Income Inequality," in *Handbook of Labor, Human Resources and Population Economics,* Klaus F. Zimmermann, ed. (Cham: Springer, 2020), 1–25.
Chetty, Raj, John N. Friedman, and Emmanuel Saez, "Using Differences in Knowledge across Neighborhoods to Uncover the Impacts of the EITC on Earnings," *American Economic Review*, 103 (2013), 2683–2721.
Cullen, Julie, and Roger Gordon, "Tax Reform and Entrepreneurial Activity," *Tax Policy and the Economy*, 20 (2006), 41–72.
———, "Taxes and Entrepreneurial Risk Taking: Theory and Evidence for the U.S.," *Journal of Public Economics*, 91 (2007), 1479–1505.
De Bartolome, Charles A. M., "Which Tax Rate Do People Use: Average or Marginal?," *Journal of Public Economics*, 56 (1995), 79–96.
Di Tella, Rafael, Juan Dubra, and Alejandro Luis Lagomarsino, "Meet the Oligarchs: Business Legitimacy, State Capacity and Taxation," NBER Working Paper no. 22934, 2016.
Draca, Mirko, and Carlo Schwarz, "How Polarized Are Citizens? Measuring Ideology from the Ground-Up," Working Paper, 2021. https://dx.doi.org/10.2139/ssrn.3154431.
Eissa, N., and J. Liebman, "Labor Supply Response to the Earned Income Tax Credit," *Quarterly Journal of Economics*, 111 (1996), 605–637.

Downloaded from https://academic.oup.com/qje/article/136/4/2309/6363701 by University of California, Berkeley/LBL user on 05 January 2022

Ferrario, Beatrice, and Stefanie Stantcheva, "Top of Mind: Using Open-Ended Questions and Text Analysis to Understand Policy Views," Harvard University Working Paper, 2021.
Fisman, Raymond, Keith Gladstone, Ilyana Kuziemko, and Suresh Naidu, "Do Americans Want to Tax Wealth? Evidence from Online Surveys," *Journal of Public Economics*, 188 (2020), 104207.
Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren, "Integrated Public Use Microdata Series, Current Population Survey: Version 8.0 [data set]," *IPUMS*, 2020. https://doi.org/10.18128/D030.V8.0.
Fuchs, Victor R., Alan B. Krueger, and James M. Poterba, "Economists' Views about Parameters, Values, and Policies: Survey Results in Labor and Public Economics," *Journal of Economic Literature*, 36 (1998), 1387–1425.
Gallup, "Party Affiliation, in Depth: Topics A to Z," Gallup, 2019. https://news.gallup.com/poll/15370/party-affiliation.aspx.
Gelbach, Jonah B., "When Do Covariates Matter? And Which Ones, and How Much?," *Journal of Labor Economics*, 34 (2016), 509–543.
Gelber, Alexander, "Taxation and the Earnings of Husbands and Wives: Evidence from Sweden," *Review of Economics and Statistics*, 96 (2014), 287–305.
Gelber, Alexander, and Joshua Mitchell, "Taxes and Time Allocation: Evidence from Single Women and Men," *Review of Economic Studies*, 79 (2012), 863–897.
Gideon, Michael, "Do Individuals Perceive Income Tax Rates Correctly?," *Public Finance Review*, 45 (2017), 97–117.
Hoynes, Hilary, "The Earned Income Tax Credit," *Annals of the American Academy of Political and Social Science*, 686 (2019), 180–203.
Hoynes, Hilary, and Jesse Rothstein, "Universal Basic Income in the United States and Advanced Countries," *Annual Review of Economics*, 11 (2019), 929–958.
Kleven, Henrik, Camille Landais, Mathilde Muñoz, and Stefanie Stantcheva, "Taxation and Migration: Evidence and Policy Implications," *Journal of Economic Perspectives*, 34 (2020), 199–142.
Kleven, Henrik Jacobsen, Camille Landais, and Emmanuel Saez, "Taxation and International Migration of Superstars: Evidence from the European Football Market," *American Economic Review*, 103 (2013), 1892–1924.
Kleven, Henrik Jacobsen, Camille Landais, Emmanuel Saez, and Esben Schultz, "Migration and Wage Effects of Taxing Top Earners: Evidence from the Foreigners' Tax Scheme in Denmark," *Quarterly Journal of Economics*, 129 (2014), 333–378.
Kopczuk, Wojciech, and Joseph P. Lupton, "To Leave or Not to Leave: The Distribution of Bequest Motives," *Review of Economic Studies*, 74 (2007), 207–235.
Kuziemko, Ilyana, Michael I. Norton, Emmanuel Saez, and Stefanie Stantcheva, "How Elastic Are Preferences for Redistribution? Evidence from Randomized Survey Experiments," *American Economic Review*, 105 (2015), 1478–1508.
Leip, Dave, "Election Results from the Associated Press," *Atlas of U.S. Presidential Elections and David Wasserman of the Cook Political Report*, 2019. https://uselectionatlas.org/RESULTS/.
Moretti, Enrico, and Daniel Wilson, "State Incentives for Innovation, Star Scientists and Jobs: Evidence from Biotech," *Journal of Urban Economics*, 79(2014), 20–38.
———, "The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists," *American Economic Review*, 107 (2017), 1858–1903.
Peterson, Johnathan C., Kevin B. Smith, and John R. Hibbing, "Do People Really Become More Conservative as They Age?," *Journal of Politics*, 82 (2020), 600–611.
Piketty, Thomas, and Emmanuel Saez, "A Theory of Optimal Inheritance Taxation," *Econometrica*, 82 (2013), 1241–1272.
Piketty, Thomas, Emmanuel Saez, and Stefanie Stantcheva, "Optimal Taxation of Top Labor Incomes: A Tale of Three Elasticities," *American Economic Journal: Economic Policy*, 6 (2014), 230–71.

Downloaded from https://academic.oup.com/qje/article/136/4/2309/6363701 by University of California, Berkeley/LBL user on 05 January 2022

Rees-Jones, Alex, and Dmitry Taubinsky, "Measuring 'Schmeduling,'" *Review of Economic Studies*, 87 (2019), 2399–2438.
Saez, Emmanuel, "Using Elasticities to Derive Optimal Income Tax Rates," *Review of Economic Studies*, 68 (2001), 205–229.
Saez, Emmanuel, Joel Slemrod, and Seth Giertz, "The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review," *Journal of Economic Literature*, 50 (2012), 3–50.
Saez, Emmanuel, and Stefanie Stantcheva, "Generalized Social Marginal Welfare Weights for Optimal Tax Theory," *American Economic Review*, 106 (2016), 24–45.
———, "A Simpler Theory of Optimal Capital Taxation," *Journal of Public Economics*, 162 (2018), 120–142.
Sapienza, Paola, and Luigi Zingales, "Economic Experts versus Average Americans," *American Economic Review*, 103 (2013), 636–42.
Sides, John, "Stories, Science, and Public Opinion about the Estate Tax," George Washington University Working Paper, 2011.
Slemrod, Joel, "The Role of Misconceptions in Support for Regressive Tax Reform," *National Tax Journal*, 59 (2006), 57–75.
Stantcheva, Stefanie, "Replication Data for: 'Understanding Tax Policy: How Do People Reason?'," (2021), Harvard Dataverse, https://doi.org/10.7910/DVN/OAHUIP.

Downloaded from https://academic.oup.com/qje/article/136/4/2309/6363701 by University of California, Berkeley/LBL user on 05 January 2022