

Research Article

# Revealing the “Hidden welfare state”: How policy information influences public attitudes about tax expenditures

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**Abstract:** In this article, we explore how specific policy information shapes public opinion toward the “hidden welfare state” of tax expenditures. These politically and socioeconomically consequential policies—most of which bestow their greatest benefits on upper-income people—are complex and opaque, and scholars’ understanding of citizen attitudes toward them is limited. In response, we use a randomized, general population, online survey experiment to test the effects of providing people with varying amounts and kinds of information about three policies. We find that learning the basic design and rationale of key tax expenditures tends to increase public support for them. However, when informed of the distributive effects of the two policies that favor upper-income people, subjects become much less supportive of these policies. Moreover, policy-specific information appears to help subjects align their preferences with their immediate material interests. Learning the upward tilt of tax expenditures especially makes lower- and middle-income people less supportive of the policies. Our results suggest that if political elites, government administrators and news media routinely offered clear information about tax expenditures, public opinion toward the hidden welfare state would be more firmly grounded. By virtue of their design, these policies discourage public awareness of their mechanisms and distributive effects. Still, greater informational outreach regarding complicated and arcane tax expenditures could bolster public accountability for government actions that favor economically narrow and privileged segments of the population.

Keywords: Tax expenditures, Social policy, Political knowledge, Public opinion, Economic inequality

Supplements: [Open data](#), [Open materials](#)

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Although benefits in many U.S. social programs have stagnated or deteriorated in real terms over the past three or more decades, one major component of the welfare state has expanded dramatically: social tax expenditures. These socially targeted tax breaks claimed by individuals or families comprise a wide array of specific items, including deductions, credits and exemptions.<sup>1</sup> Unlike policies packaged as funds or services provided directly by government, such as Social Security, housing vouchers,

and Pell Grants for college, social tax expenditures take the form of reduced tax obligations. The number of such tax breaks surged by more than 50 percent from 1987 to 2007, and by 2017, their dollar value amounted to around 7 percent of GDP. This is an enormous sum given that total federal tax receipts have hovered between 14 and 20 percent of GDP in non-recession years during recent decades (Burman & Phaup, 2011; Shakin, 2017; Federal Reserve Bank of St. Louis, 2019). Also, unlike direct social policies, tax expenditures bestow most of their benefits on affluent households, rather than low- or middle-income households. For instance, in 2018 those with incomes of more than \$100,000 received more than 88 percent of the total tax benefits from the home mortgage interest deduction (Joint Committee on Taxation, 2018).<sup>2</sup>

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Despite their formidable size and financial consequences, these policies receive little attention in public discourse. Howard (1997) defines social tax expenditures as a “hidden welfare state,” underscoring their indirect and complex delivery mechanisms, opaque design, and low political profile. Although interest groups mobilize regularly to protect these tax breaks, the general public has been quiescent (Hacker, 2002). Scholars have speculated that placement in the tax code renders such policies invisible to many citizens, thereby blurring knowledge of their effects (Arnold, 1990). But empirical research on Americans’ basic awareness of key tax expenditures (much less their opinions on the policies’ upwardly distributive consequences) is limited.

In response, we use an experiment to investigate how providing specific information about social tax expenditures influences people’s opinions about them.<sup>3</sup> We find that learning the distributional consequences of tax breaks makes citizens less supportive of policies that disproportionately benefit the affluent. In addition, policy-specific information appears to help people align their preferences with their immediate material interests: low- and middle-income subjects became much more opposed to tax expenditures that benefit upper-income people once they learned about these effects. Our findings complicate traditional theories of sociotropic policy attitudes and political behavior (Sears, Lau, Tyler, & Allen, 1980) by showing that many people form tax policy opinions based on self-interest (Lau & Sears, 1981), when material dimensions of policies are highlighted by providing relevant information (Chong, Citrin, & Conley, 2001).

Our research strategy permits us to isolate causal effects with greater confidence than if we relied on more typical techniques of statistical simulations or analysis of observational data. Moreover, because tax expenditures are “hidden” by their design, questions about them on standard surveys are unlikely to yield appropriate measures: we cannot expect people to express meaningful judgments about something they know little or nothing about. The experimental method allows us to alter precisely the amount and type of information individuals receive about these policies, and to test the influence of such variation. Our work supplements and complements studies of the hidden welfare state that rely on observational survey analysis, historical narratives, and other methods.

While social and individual-level obstacles to

information effects on public opinion can be formidable, our results suggest that many people will respond sensibly to clear facts about important government programs, if such information is made accessible to them. From a normative perspective, our results point to potential distortions in the communication and informational processes linking citizens to policymakers. Consequently, efforts by policy advocates, political leaders, and government practitioners to make the design and distributive effects of tax expenditures more transparent might facilitate greater accountability for policy decisions by helping people express well-grounded preferences that reflect their concrete interests.

### **Political Knowledge, Specific Policy Information, and Public Opinion**

In the model of human behavior that underlies conventional policy analysis, citizens are assumed to have full information (Weimer & Vining, 1992). While scholars have grappled theoretically with the limitations of this assumption (e.g., Stone, 2012; Lupia & McCubbins, 1998), empirical research has paid little attention to how citizens’ level of information about particular public policies influences their political support for those policies. This question is especially important for issues pertaining to the tax code, given its complexity and the starkly unequal distribution of knowledge about tax policy. For example, in a 2003 poll, a majority of the richest 5 percent answered questions about the tax code correctly, compared to about 20 percent of the remainder of the sample (National Public Radio, 2003).

Despite temporary spikes in attention in some cases, social tax expenditures have long maintained an especially low public profile. Tax expenditures’ complex designs and indirect delivery mechanisms obscure these policies’ operational logics and social effects. Moreover, privileged groups have incentives to hinder public awareness of most tax expenditures in order to protect the disproportionate gains they receive. These policy features and political factors discourage thorough and consistent news media coverage of the hidden welfare state. Popular media outlets largely follow cues from prominent elites, and their commercial imperatives favor simple stories of dramatic conflict more than substantive policy information and discussion (Iyengar, 2019). Compared to other domestic policy topics, tax expenditures lack vigorous elite publicity and strident partisan conflict,

and news outlets may consider them especially difficult for general audiences to grasp.

Coverage patterns in two of the highest-circulation U.S. daily newspapers illustrate this dynamic. Across two randomly selected months in 2019, *USA Today* news articles mentioned the home mortgage interest deduction just three times. Even in November 2017, at the height of debate over the Tax Cuts and Jobs Act, this tax expenditure was referenced a mere six times. *The New York Times* referenced the mortgage deduction in just five articles over two randomly selected months in 2019. The *Times* mentioned the deduction in 18 stories during November 2017, but many were glancing references that lacked even a rudimentary definition of the policy.<sup>4</sup>

Social tax expenditures' informational impediments and low public profile raise the question of how the views of citizens—especially those who are not affluent—might be affected if they were more knowledgeable about the policies. Scholars of “policy feedback” have developed an analytical framework well-suited to addressing this question. Policy feedback refers to how policies themselves may influence the political system (Pierson, 1993; Schneider & Ingram, 1997; Skocpol, 1992). Studies have shown that as policies alter the resources and messages offered to mass publics, they may influence political attitudes and participation, with important consequences for subsequent policymaking (e.g., Campbell, 2003; Mettler, 2002; Soss, 1999). This work has responded to unrealistic assumptions that citizens possess full information about policies which affect them by illuminating how specific policy characteristics (e.g., design features, administrative contexts and political coalitions) send signals that shape public perceptions of policies.

For example, policies may communicate messages through social constructions of their target populations (Schneider & Ingram, 1997). This perspective suggests that deeply embedded cultural images of homeowners and savers may generate favorable public opinion toward the home mortgage interest deduction and retirement savings contribution tax credit; these target populations are both relatively “strong” in political-economic terms and “positively” constructed in cultural and political discourse (Schneider & Ingram, 1993, p. 336, Figure 1). However, because basic public knowledge about social tax expenditures appears to be both uncommon and unevenly distributed, providing concrete information might in some contexts mitigate or contradict the effects of such culturally laden images. This may

encourage those who derive little benefit from the policies to instead base their opinions on their material interests.

More broadly, policy feedback research has highlighted the importance of *visibility* and *traceability* in policy benefits (Campbell, 2012, pp. 339-340). Wide and effective availability of specific information in accessible forms is likely to affect visibility and traceability, conditioning citizens' ability to express opinions that hold government actors responsible for policies' social or economic effects. Information provision is especially critical for policies like tax expenditures, whose design features and political incentives produce special obstacles to public awareness. Seen in this context, empirical research on the effects of specific policy information can contribute to theory-building by clarifying conditions that may intensify, mitigate, block or re-direct policy feedback effects on public attitudes (Campbell, 2012, pp. 346-347).

Policy feedback scholars also face challenges in identifying precise *mechanisms* connecting government policies to public opinion (Campbell, 2012, pp. 345-346). Research in this area has focused primarily on how citizens develop knowledge or impressions through their immediate experience of programs. Scholars have not fully examined how directly providing information about the features of policies—their basic purposes and how benefits are distributed—may influence support for them, not only among beneficiaries but among citizens generally. This is an important oversight, as levels of broad public support for policies constitute a key signal of legitimacy for government action to address social problems. Empirical research on direct information provision may point to underappreciated policy feedback mechanisms, such as bureaucratic public outreach or awareness efforts and news media coverage, whose scope stretches beyond specific policy clientele.

Behaviorally oriented public opinion research offers promising concepts and analytic tools for filling these gaps in understanding policy feedback. Political scientists have examined several ways that general political knowledge can shape public attitudes. Empirical applications of Zaller's (1992) influential model demonstrate how awareness of basic political institutions, processes and actors encourage citizens to attend to and coherently evaluate elite policy messages. Statistical simulations show that such “fully informed” policy preferences (Althaus, 1998) and vote choices (Bartels, 1996) are more consistent and logi-

cally sound than those articulated by under-informed citizens (see also Delli Carpini & Keeter, 1996). However, these scholars have focused less on how specific information about policies may affect citizens' support for these policies.

Observational research shows that information related to specific policy domains can facilitate issue comprehension, shape cognition, and influence opinion (Price & Zaller, 1993; Jerit, Barabas, & Bolsen, 2006; Barabas & Jerit, 2009; Feldman, Huddy, & Marcus, 2015). Gilens (2001) uses a randomized experiment to provide greater causal leverage on these claims, showing that facts which may be contextually related to public policies—such as indicators of social and economic conditions—can shape policy preferences. Similarly, McCall & Richeson (2017) find that information about the distribution of income and earnings growth for workers and corporate executives affects public beliefs about general policy responses to inequality. Again, however, these scholars do not examine how *specific information about attributes of policies themselves*—e.g., how they operate or who benefits most from them—influences opinions about the policies. While not focused on that type of policy information, two previous studies suggest the promise of such research. Kuklinski, Quirk, Jerit, Schwieder, & Rich (2000) demonstrate that policy “misinformation”—confidently-held, factually inaccurate beliefs—can affect welfare policy opinions. Cook, Jacobs, & Kim (2010) find that specific information about expected future Social Security benefits increases knowledge of (and confidence in) the program. One study of tax expenditures offers compelling suggestive evidence that providing information about upwardly distributive effects decreases support for these policies (Faricy & Ellis, 2014). However, that study does not address how different income groups respond to information, and its undergraduate student convenience sample significantly limits generalizability. Thus, key questions remain about the extent to which providing specific information about tax expenditures might influence opinions in ways that may facilitate government responsiveness in real-world settings marked by inequalities in socioeconomic status, policy knowledge, and political power.

A large body of public administration research has investigated information effects in the context of government service provision across several national contexts (e.g., Baekgaard, 2015). Studies demonstrate how performance information shapes citizen satisfaction with local services (James, 2011; James &

Moseley, 2014) and voting behavior (James & John, 2007); how different forms of performance information influence service evaluation (Olsen, 2015a; Olsen, 2017); and how information on social representation in public management and leadership affects perceptions of local service fairness, efficacy and trustworthiness (Ricucci, Van Ryzin, & Lavena 2014), as well as citizens' behavioral responses to public initiatives (Ricucci, Van Ryzin, & Li 2016). This research has made impressive methodological and theoretical progress, combining insights from psychological research with survey experiments that clarify causal dynamics (Olsen, 2015b). Recent scholarship highlights the limits and contingencies of information effects. For example, government performance numbers are often less influential than emotionally compelling episodic information (Olsen, 2017), and ideological predispositions can distort citizens' interpretation of performance information (Baekgaard & Serritzlew, 2016). Our study extends similar research strategies to examine the influence of information about national-level policy design and effects in the domain of U.S social tax expenditures, whose complexity, opacity, and socioeconomic implications make such research especially theoretically interesting. In turn, public administration research in local government contexts suggests promising avenues for extending our work on national tax expenditures. We briefly address these possibilities in the conclusion.

Altogether, the insights and limitations of policy studies, political science and public administration research suggest a clear need for empirical work on how specific information about the operation and distributional outcomes of national policies influence levels of public support. Greater attention to the effects of policy-specific information is especially crucial for understanding public opinion on tax expenditures. There are several reasons why attitudes toward these particular policies may be conditioned by limited and unequal factual knowledge about them. Social tax expenditures are highly obscure and often removed from heated partisan debates. At the same time, these costly policies have significant and deeply inequitable material implications for policy beneficiaries and broader publics alike. Such factors suggest that providing citizens with basic information about tax expenditures could influence their opinions, despite the political predispositions and psychological biases that can block or mitigate information effects. Especially important is the possibility that many of the lower- and middle-income people

**Table 1**  
**Experimental Design: Information Treatments by Group**

		Treatments		
		Group 1: Basic information	Group 2: Full information	Group 3: Two-step information
Pre	No information	No information	No information	Basic description
Post	Basic description	Basic description + distributive impact	Basic description + distributive impact	Distributive impact

who benefit little from tax expenditures might form oppositional opinions after learning these policies' distributional effects. Prior research demonstrates that material interests are most likely to influence opinions when policy effects are "visible, tangible, large, and certain." (Citrin & Green, 1990, p. 18) Social tax expenditures are a prime example of a policy with tangible, large, and relatively certain consequences. Our study investigates the consequences of making their effects visible.

From a methodological standpoint, social tax expenditures constitute a prime setting in which to apply the power of experimental design and the insights of behavioral research to the study of government policy. Causal inference has been an ongoing challenge in efforts to specify mass policy feedback effects (Campbell, 2012, pp. 343-345). Just as field experiments can help parse the causal effects of concrete experiences with public policies and programs, survey-based experiments can illuminate how providing specific information and other direct messages about policies might affect public attitudes.<sup>5</sup> Applying this strategy to social tax expenditures allows us to directly test the effects of providing a glimpse of policy characteristics and consequences that are otherwise largely concealed from much of the public. Charting new pathways for policy feedback effects using a methodological approach that strengthens causal inference can complement institutional and observational research as part of broader efforts to trace connections between government policies and programs and public attitudes and behaviors (Mettler & Soss, 2004).

### Study Design

To investigate how specific policy information might shape tax expenditure attitudes, we administered an online experiment to a nationally representative sam-

ple.<sup>6</sup> We compared three conditions: (1) no information; (2) a basic description of policy goals and mechanisms; and (3) this description plus information on the distribution of direct policy benefits by income group. Rather than use a simple between-subjects design, we added within-subjects elements that would allow us to analyze the same citizens' responses to more than one condition. This approach permits us to investigate how the same subjects' levels of policy support were influenced by different types and amounts of information. Below, we focus on within-subjects effects, referring to between-subjects differences across experimental conditions that confirm, clarify or qualify those effects. We randomly divided a sample of 526 adults into three groups. Within each group, we investigated levels of support for three major tax expenditures: two that primarily benefit upper-income people, the home mortgage interest tax deduction ("HMID") and retirement savings contribution tax credit ("RSCTC"), and one that primarily benefits lower-income people, the earned income tax credit ("EITC"). We exposed each group to two treatments, through sequences summarized in Table 1.

The *basic information treatment*, applied to Group 1, was designed to assess the extent to which providing a simple, straightforward description of the purposes and mechanisms of tax expenditures might affect opinions. At the start (prior to any information provision) subjects indicated their opinions on each policy. For example, subjects were asked: "Do you favor or oppose the Home Mortgage Interest Tax Deduction?" Possible responses included: "favor strongly," "favor somewhat," "oppose somewhat," "oppose strongly," and "don't know/no opinion."<sup>7</sup> Next, subjects answered a series of three distraction questions about sports and entertainment. Then, they were provided with two-sentence policy descriptions, as follows:

Now, here is some information about the federal Home Mortgage Interest Tax Deduction. This policy is a tax benefit for homeowners. It allows them to reduce the amount they pay in income taxes based on the amount they pay in interest on their home mortgage.

After this, subjects were once again asked for their opinions, using the same wording as above.

The *full information treatment* exposed subjects in Group 2 to the same basic description as Group 1, plus concise information about the relative financial benefits that accrue to income groups from each policy. As in the basic information treatment, subjects were first asked their opinions without being offered information. Then, after the same distraction questions asked of Group 1, they were provided with the identical description offered to the former group, supplemented by two sentences about the distributive consequences of the policy, as follows:

The people who benefit most from this policy are those who have the highest incomes. In 2005, a large majority of the benefits went to people who lived in households that made \$100,000 or more that year.

After this description, subjects saw a graph portraying the policy's distributive structure.<sup>8</sup> They were

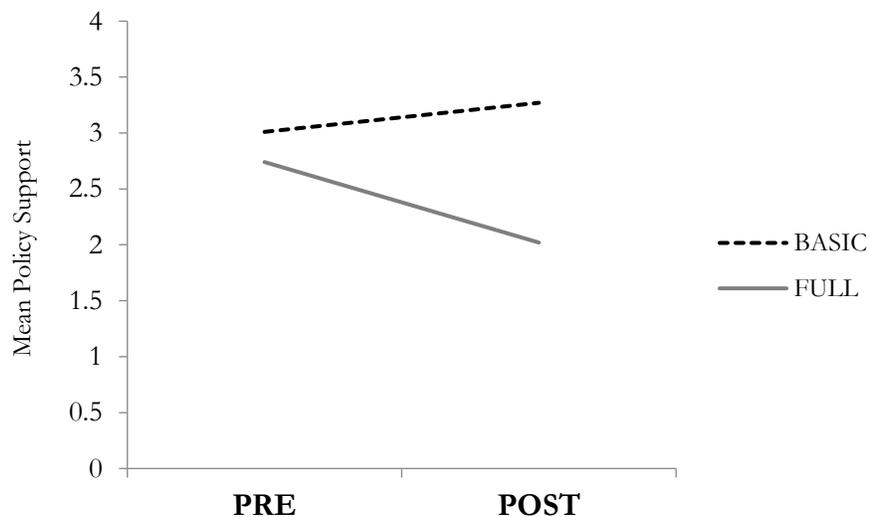
then asked for their opinions on the policy again.<sup>9</sup> We also measured income, party and ideological identification, and demographic traits including race, gender, age, and educational level.

### Overall Information Effects

We begin by describing basic results, showing how providing different kinds of specific information about each tax expenditure affected subjects' levels of favorability. Figures 1 through 3 show changes in policy support in the basic and full information conditions after exposure to treatments. The y-axis measures mean levels of support for each policy.<sup>10</sup> Dependent variables are five-point scales ranging from "oppose strongly" (0) to "favor strongly" (4), with "don't know/no opinion" responses placed at the midpoints.<sup>11</sup>

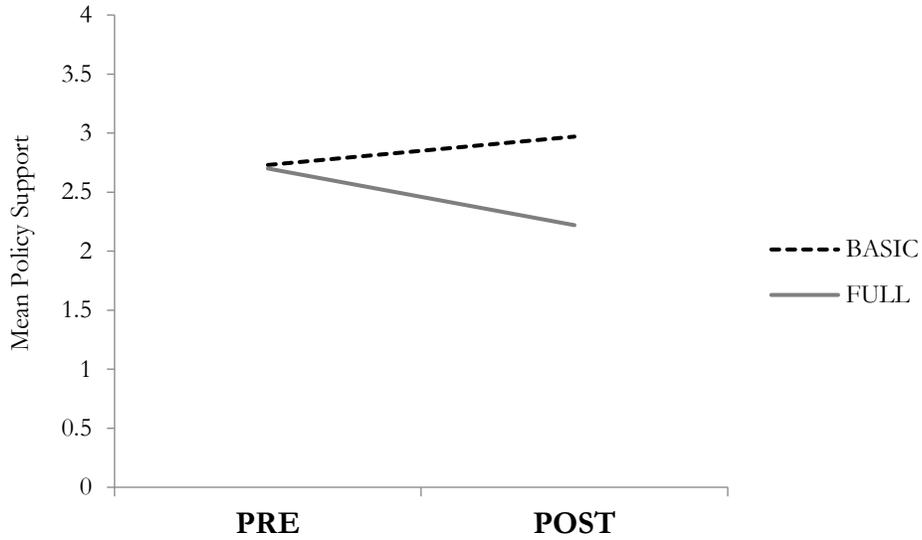
The basic information treatment caused subjects to express a higher level of favorability toward the home mortgage interest deduction (Figure 1) and retirement savings contribution tax credit (Figure 2): mean support for these policies jumped 0.26 points in the case of the HMID, and 0.24 points in the case of the RSCTC. These shifts are unsurprising in light of the generally positive images of the basic rationale behind these policies and of the social groups that benefit from them. Private homeownership is a pow-

**Figure 1**  
**Policy Favorability, by Information Condition: Home Mortgage Interest Deduction**



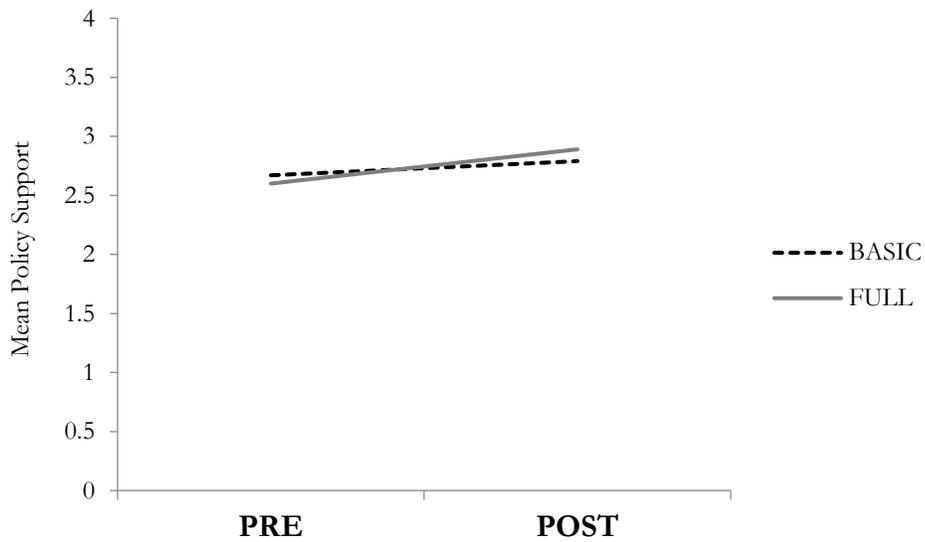
Notes: Data are from an online survey experiment delivered to 348 U.S. adults. Changes in support for the HMID are significant at the  $p < .001$  level in both information treatments.

**Figure 2**  
**Policy Favorability, by Information Condition: Retirement Savings Credit**



Notes: Data are from an online survey experiment delivered to 348 U.S. adults. Changes in support for the RSCTC are significant at the  $p < .001$  level in both information treatments.

**Figure 3**  
**Policy Favorability, by Information Condition: Earned Income Tax Credit**



Notes: Data are from an online survey experiment delivered to 348 U.S. adults. Changes in support for the EITC are significant at the  $p < .001$  level in the full information treatment; changes are significant at  $p < .10$  (.0635) in the basic treatment.

erful cultural image, one that is central to the American Dream of upward socioeconomic mobility. In addition, the eligible group for this policy would appear to include most citizens: as of 2010, fully 65.1 percent of Americans owned homes (Mazur & Wilson, 2011). Similarly, saving for retirement—and savers as a group—are viewed quite positively in American culture. Because social images of “target groups” influence citizens’ levels of favorability toward a number of U.S. domestic policies (Schneider & Ingram, 1997), it makes sense that when subjects were explicitly informed about the basics of the HMID and the RSCTC, they became more favorable toward these tax expenditures.

However, patterns of opinion unfolded very differently when subjects learned of the upwardly distributive tilt of the policies. As shown in Figures 1 and 2, mean support for both tax expenditures dropped sharply in the full information condition, falling a full 0.72 points in the case of the HMID, and 0.48 points for the RSCTC. After the full information treatment, a plurality (40.8 percent) expressed opposition to the HMID (combining “oppose somewhat” and “oppose strongly” responses); in the case of the RSCTC, opposition surged from just 5.3 percent pre-treatment to 35.3 percent post-treatment. Between-subject tests confirm these findings. Mean support for the HMID was 1.25 scale points lower among subjects who received distributive information about this tax expenditure than it was for those exposed to basic information only. Support for the RSCTC was 0.75 points lower in the full information condition than in the basic information condition.<sup>12</sup>

One way to interpret these findings is that, for many people, information about the upwardly distributive bias of the tax expenditures—in other words, specific facts about the immediate material implications of policies—became more salient as a grounding for opinion than prevailing socio-cultural constructions linked to the phrases “home mortgage” and “retirement savings.” Opinion shifts regarding the downwardly distributive policy—the EITC (Figure 3)—were weaker than for the other two tax expenditures (approximately half the size in both treatments). Still, these effects are in theoretically expected directions, and the increase in support after receiving information about the policy’s distribution of financial benefits is highly significant.<sup>13</sup>

Overall, preliminary findings suggest that in the aggregate, providing information about the upwardly distributive tilt of major tax expenditures results in

lower levels of public support. Providing distributive information about the most prominent element of the hidden welfare state that directly benefits lower-income people marginally increases favorability toward that program. We turn now to the patterns underlying these opinion shifts, asking how those with different material predispositions respond to information about tax expenditures.

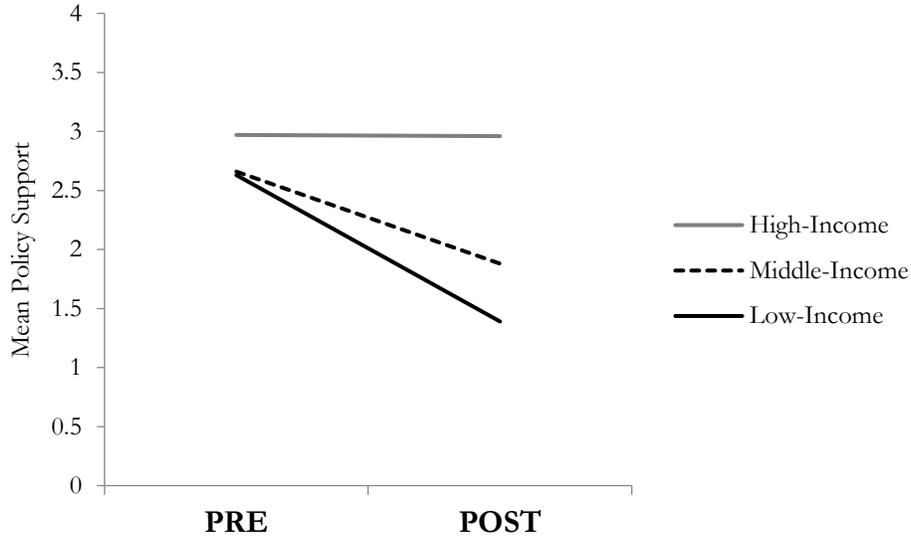
### **Income Differences in Responses to Information: The Role of Material Interests**

To what extent does providing citizens with specific information about tax expenditures help them to align their opinions with their immediate material interests? We address this question by investigating how subjects’ responses to new information may vary by income level.<sup>14</sup> Because details about the distributive effects of policies (rather than basic policy descriptions) are most relevant for possible opinion change across income groups, we focus here on the “full information” treatment. Figures 4 through 6 present changes in mean levels of support for each policy in that treatment according to income level.

Once they were informed that the HMID and the RSCTC mostly benefit the affluent, low- and middle-income subjects shifted their opinions from strong support to opposition. Change was especially dramatic among low-income people, whose mean level of support for the HMID plummeted 1.24 points (Figure 4), and more than a full point in the case of the RSCTC (Figure 5). Moreover, in both cases the percentage of low-income subjects expressing opposition to the policies surged, from 6.8 percent to 57.6 percent against the HMID, and from 3.4 percent to 52.5 percent opposed to the RSCTC. It appears that specific information about the distributive bias of these policies prompted low- and middle-income subjects to align their opinions with their immediate material interests. Effects on high-income citizens were considerably weaker, not reaching statistical significance for the home mortgage interest deduction. Support for the RSCTC among high-income people actually increased slightly when they learned of its upward tilt. For both upwardly distributive policies, post-test differences of opinion between

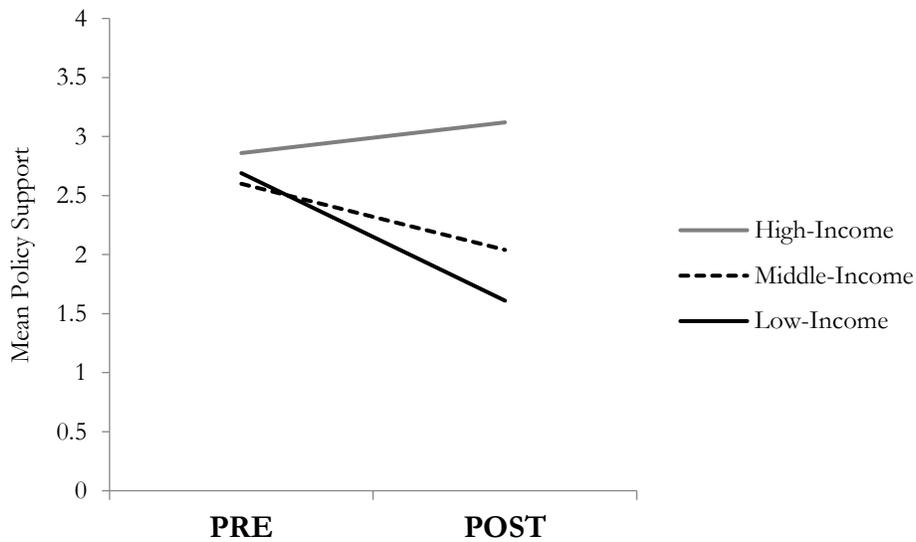
low- and middle-income subjects, on the one hand, and high-income subjects, on the other, are significant ( $p < .001$ ) and in the theoretically expected direction. This provides further evidence that increased transparency about the personal financial

**Figure 4**  
**Policy Favorability by Income: Home Mortgage Interest Deduction**



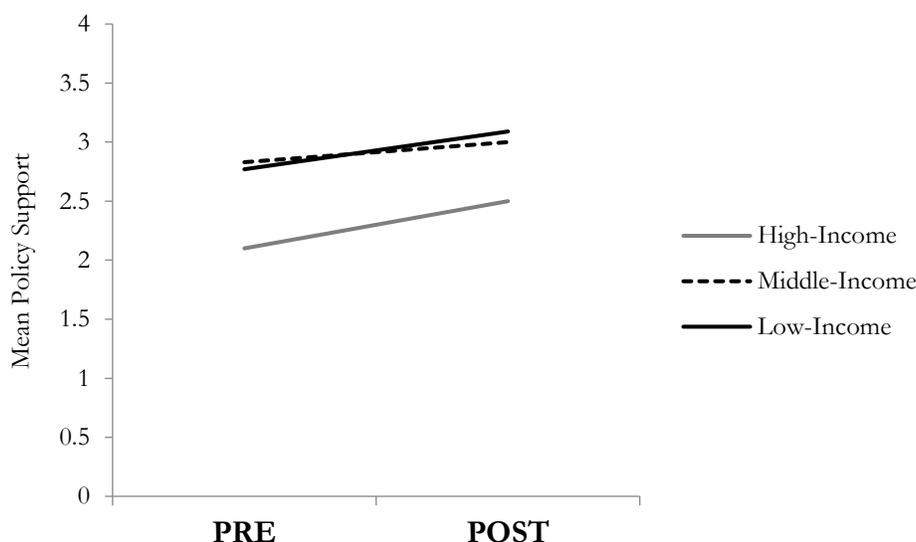
Notes: Data are from an online survey experiment delivered to 177 U.S. adults. Decreases in support for the HMID among low-income and middle-income subjects are significant at the  $p < .001$  level. Changes among high-income subjects are not significant.

**Figure 5**  
**Policy Favorability by Income: Retirement Savings Credit**



Notes: Data are from an online survey experiment delivered to 175 U.S. adults. Decreases in support for the RSC among low-income and middle-income subjects are significant at the  $p < .001$  level. The increase in support among high-income subjects is significant at  $p < .05$ .

**Figure 6**  
**Policy Favorability by Income: Earned Income Tax Credit**



Notes: Data are from an online survey experiment delivered to 177 U.S. adults. Increases in support among low-income and high-income subjects are significant at the  $p < .05$  level. The increase in support among middle-income subjects is not significant. Higher post-test policy support among low-income than among high-income subjects is significant at  $p < .01$ . Higher post-test support among middle-income than among high-income subjects is significant at  $p < .05$ . The difference in post-test policy support between low- and middle-income subjects is not significant.

consequences of tax expenditures can encourage people to express policy preferences consistent with their material interests. An OLS regression model with partisan and demographic controls confirms these results: income exerts strong positive effects on support for the HMID and RSTC when subjects are exposed to distributive information. In these models, moving from middle to high income increased support for the home mortgage deduction by 0.615 points on the five-point opinion scale ( $p < .01$ ). For the retirement savings credit, moving from middle to high income boosted support by 0.386 points ( $p < .05$ ).<sup>15</sup>

As Figure 6 shows, support for the EITC among both low- and high-income income groups increased after subjects were informed of the policy's downwardly distributive consequences. Effects were somewhat larger for high-income subjects. This is likely because favorability toward the earned income tax credit was lowest among this group before receiving any information. Indeed, favorability toward the EITC was significantly lower among high-income subjects than among low- or middle-income subjects at both the pre- and post-test stages. Consequently, while high-income people did express

greater levels of support after learning of its downwardly distributive effects than they did before exposure to this information, opinions toward the EITC among income groups remained generally parallel with subjects' material interests after receiving this information.<sup>16</sup>

### **Conclusion: Policy Information and Democratic Accountability**

Our evidence indicates that policy-specific information can play a powerful role in opinion change. In particular, provision of clear and concise information appears to help people sensibly connect their underlying material interests to opinions about arcane parts of the federal tax code. While a large literature provides evidence that citizens' material interests often play a minor role in driving policy prefer-

ences and reactions to public programs, our findings are consistent with studies that show larger self-interest effects in the domain of tax policy (e.g., Lau & Sears, 1981). Perhaps most importantly, our study builds on previous experiments which suggest that self-interest can strongly shape policy preferences

when material stakes are clarified by providing citizens relevant information they can use as evaluative criteria (Chong, Citrin, & Conley, 2001).

As with all experiments, our study raises questions of external validity—about how and to what extent these dynamics might play out in day-to-day politics and governance. Public policies are often subject to partisan and ideologically framed debate: people seldom receive the kind of sterile, soberly portrayed information we offer in our experiment. However, social tax expenditures have rarely been the focus of elite debate that is sufficiently loud and widespread to reach the great majority of citizens. Instead, these policies have generally been enacted and maintained in the interest group- and expert-dominated realm of “subterranean” politics (Hacker, 2002, p. 9). Indeed, the arcane structure of tax expenditures discourages both citizen understanding and coverage by the news media. Our findings suggest that if simple information about the effects of tax expenditures were widely available, public opinion toward the upwardly distributive core of the hidden welfare state might be much less favorable. Moreover, we demonstrate strong and consistent results from one-time treatments; outside the experimental setting, effects might persist and cumulate if people were frequently offered information on tax expenditures in accessible and convenient forms.

Our findings point to underexplored conditions and mechanisms of mass policy feedback. We corroborate work using other methods which supports the theoretical proposition that feedback effects are more likely when policy messages are more visible. Our results also suggest that direct mechanisms for making policies visible to broader publics may be as important in shaping citizen attitudes as program beneficiaries’ concrete experiences with government. Some bureaucratic actors have endeavored to increase public awareness of social tax expenditures. And technical information about their design and effects is available online in government and think tank reports. Given sparse coverage in national media, however, we question the effective accessibility of this information in formats and venues that broadly reach the lower- and middle-income citizens who are least knowledgeable about (and most affected by) the hidden welfare state. For instance, each January since 2007 the Internal Revenue Service has staged an earned income tax credit “awareness day.”<sup>17</sup> Yet from January 1 through April 15, 2019 (Tax Day), the EITC was mentioned in just six *USA*

*Today* reports. All were fleeting references, none defined the EITC, and just one story provided information about how to claim the credit. The earned income tax credit was ignored by all three top national TV broadcast networks during that period.<sup>18</sup> The extent to which government outreach efforts or recent debates over state-level tax expenditures may have increased public knowledge or shaped public attitudes are important questions for future empirical analysis.<sup>19</sup> However, there are strong reasons to believe that, absent new and stronger efforts on a variety of fronts to increase transparency, social tax expenditures will remain hidden from broad swaths of the public.

Our study suggests that policy advocates, elected officials and bureaucrats would do well to consider how to make basic information about the design and distributive effects of tax expenditures more widely available and understandable, perhaps through digital media and other innovative outreach strategies. Our experiment provided subjects with packages of basic statistical and textual information. Future research on tax expenditures might build on public administration work in local government contexts by testing for differential impacts of these information modes (Olsen, 2017) and differential effects of alternative forms of statistical presentation (Olsen, 2015b). Such findings could aid government practitioners’ and other policy actors’ efforts to design informational interventions that maximize public comprehension and accessibility. To be sure, not all citizens would respond to information about tax expenditures, and not all would use it align their policy preferences with their material interests. Still, more sustained and focused attention to information provision might facilitate both greater government accountability and more robust responsiveness to informed public opinion.

Parting ways with the traditional behavioral stress on individual cognitive capacities and motivation, our study emphasizes social and political opportunities for learning about public policy—such as from the educational system, the media, civil society, government agencies, and political elites (Barabas & Jerit, 2009; Delli Carpini & Keeter, 1996; Guardino, 2019). As Kuklinski, Quirk, Jerit, Schwieder, & Rich, (2000, p. 791) write, “citizens can use facts only if the political system disseminates them... If facts are the currency of citizenship, then the American polity is in a chronically impecunious state.” Our work on tax expenditures and their distributive effects suggests

that efforts to disseminate policy-specific information can lend weight to the opinions of ordinary people, including those whose socioeconomic status leaves them politically marginalized.

Tax expenditures constitute a rapidly expanding component of the U.S. welfare state. This decades-long trend shows few signs of abating, even amidst growing economic inequality (Jacobs & Skocpol, 2005) and persistent federal budget deficits. Many ordinary Americans are effectively excluded from exercising their democratic voice on these matters because policy experts, political leaders, and news media barely inform them. Even if the hidden welfare state's indirect policy designs impede broad awareness, more active information efforts could strengthen connections between citizens and governance. Elected officials and administrative leaders have a responsibility to explain who benefits most from these costly policies, so publics can sensibly decide whether to support them.

### Notes

1. Corporate tax expenditures are not included in our analysis. In recent years, these have amounted to approximately 1 percent of GDP, considerably less than social tax expenditures (Joint Committee on Taxation, 2018).
2. The Tax Cuts and Jobs Act of 2017 reduced the upward tilt of the home mortgage interest deduction by cutting the maximum values of new loans for which interest could be claimed (from \$1 million to \$750,000 for joint filers). Still, most social tax expenditures remain regressive, and the recent mortgage interest change was part of broader legislation that delivered most of its direct benefits to wealthy people and large corporations (Light, 2019).
3. A more condensed and less theoretically grounded discussion of some analyses and ideas in this article appears in Mettler & Guardino (2011, pp. 55-66).
4. Results are based on keyword searches of the NewsBank archive, using parameters that identified all permutations of the words "home," "mortgage," "deduction", and "tax." Editorials, op-eds, and letters to the editor were excluded. Randomly selected months were January and May 2019, for *USA Today*, and February and August 2019, for *The New York Times*.
5. For example, future experimental research might investigate how social constructions of

target populations communicated in bureaucratic public relations materials may shape citizen beliefs about government programs.

6. Data for the study were collected through Time-Sharing Experiments for the Social Sciences, which is supported by the National Science Foundation. The survey was fielded by Knowledge Networks in February 2008, using random-digit-dialing to obtain a representative general population sample. The response rate was 63.1 percent, calculated according to American Association for Public Opinion Research Approach #3.
7. We illustrate the experimental design by referring to the HMID; treatments for the other two policies, which follow the same format, are summarized in the appendix.
8. See the appendix for these graphs. In using the term "full information" to label this treatment, we do not suggest that receiving the information we provide produces truly "fully informed" policy preferences, as in market-based models of policy analysis or neoclassical economic theory. Rather, we use the term as shorthand for circumstances in which people encounter more information about social tax expenditures than is typically widely available (centrally including information about policies' immediate material benefits for different income groups).
9. We designed a third treatment, the two-step treatment, to better isolate the causal effects of distributive information from those of basic information. Subjects in Group 3 received the basic descriptive information at the start, and then were asked their policy opinions. Next, following the distraction questions, they were provided with simply the distributive information that for Group 2 had been combined with the basic information. Then, these subjects were asked their opinions again. These responses allowed us to confirm the unique effects of the distributive information, as Group 3 post-treatment results should match Group 2 post-treatment results, if the cause is distributive information, rather than some fluke or unexamined factor associated with the lag between Group 3 pre- and post-test questions. Results were indeed statistically indistinguishable for all policies. Consequently, we were able to add statistical power and reduce the effects of individual variance in the regression models

- discussed below by combining post-test responses in the two groups.
10. We report mean levels of support for clarity of interpretation. Successful random assignment provides confidence that differences in opinion are due to the effects of information treatments, rather than confounding factors or unobserved variables. Balance checks indicate no significant differences among subjects assigned to the three experimental groups in age, gender, race/ethnicity, education, income, or ideological identification. Strong Democrats and independents who lean Democratic are over-represented in Group 3. However, our findings derive from comparing opinion in groups 1 and 2 and analyzing the effects of income on post-test opinions in groups 2 and 3 combined (which both received distributive information). Using a three-category measure (Democrat-Independent-Republican, with leaning independents defined as partisans), differences between Group 1 and the combined groups 2 and 3 do not reach conventional levels of significance. Moreover, because the regression models control for partisanship (as well as key demographic traits), there is strong reason to believe that the treatment effects are real and independent of partisan identification. Sample statistics and balance test results are in the appendix.
  11. Our decision to place these responses at the midpoint rests on firm theoretical ground. Exposure to information may cause meaningful opinion change via (1) movement from support (opposition) to opposition (support), (2) changes in intensity of support (opposition), or (3) shifts from the midpoint toward support (opposition) at either end. “Don’t know/no opinion” may indicate neutrality (standing above the policy conflict), ambivalence (struggling with contradictory considerations), indifference (insufficient interest in the policy) and/or reticence (insufficient confidence in one’s knowledge). These distinctions are unimportant for the purposes of our study. Before being provided information, many subjects (across conditions, 28.6 percent to 38.6 percent) declined to express pro/con opinions on opaque and obscure tax expenditures. Propensity to render a pro/con judgment increased substantially after all treatments (“don’t know/no opinion” responses at that stage ranged from 8.5 percent to 19.5 percent). This is unsurprising in light of the many routes through which information can fortify and clarify the bases for policy judgment. Receiving information may encourage some subjects to express positions when they had considered themselves neutral observers. For the initially ambivalent, information may tip the scales of competing considerations. For others, information may highlight issue importance, motivating them to express a pro/con opinion. For still others, information may increase confidence in making wise judgments. In all cases, greater policy transparency has changed public attitudes, setting a possible foundation for greater government accountability and responsiveness.
  12. See Figures A1 and A2 in the appendix.
  13. Between-subjects tests for the EITC were insignificant. Mean support for this tax expenditure was 0.1 points higher among subjects exposed to full information than among those receiving basic information. See Figure A3 in the appendix.
  14. Annual household incomes up to \$34,999 were coded as low, \$35,000 to \$74,999 as middle, and \$75,000 and above as high. We define “material interests” narrowly to refer to immediate, direct, tangible costs and benefits that people at various income levels are likely to derive from particular tax expenditures. This does not foreclose the possibility of longer term, more indirect benefits that may accrue to middle- or lower-income people from upwardly distributive tax expenditures (such as through macroeconomic stimulus effects generated by the HMID or RSCTC). We make no claims about any such possible effects, or about how knowledge of them may or may not affect public attitudes.
  15. See Tables A3 and A4 in the appendix.
  16. For an analysis of how personal experience of the EITC influences attitudes about government, see Mettler (2018, pp. 106-112, 131-133).
  17. See here: <https://www.eitc.irs.gov/partner-toolkit/eitc-awareness-day/eitc-awareness-day-2>.
  18. These results come from keyword searches of NewsBank. Editorials, op-eds, and letters to the editor were excluded. The single reference to how to claim the EITC was in a personal finance column in *USA Today*’s “Money” section.
  19. The size and effects of state and local social tax expenditures are comparatively minor. Moreov-

er, sub-national elements of the hidden welfare state may command even less public attention and awareness than their national counterparts. Public knowledge of state policy issues has long

lagged behind the national level, and popular news coverage of state government has been severely cut back in recent years (Matsa & Boyles, 2014).

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