

**Online Appendix (For Online Publication Only)**  
**“Does Tax Avoidance Trickle Down? Evidence from a Field Experiment”**  
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**October 15, 2025**

## **A Further Details and Results**

### **A.1 Details about the Field Survey Sample**

Table A.1 reports summary statistics for the 100,615 households invited to participate in the study and compares the characteristics of those in the subject pool with those who are not. The latter group includes households who did not respond to the survey as well as a minority who began the survey but were excluded for various reasons, such as not completing the main module, reporting outlier beliefs, or having appealed before answering the survey. There are some differences between the two groups, although typically modest in magnitude. For instance, households in the subject pool have an average property value of \$448,000, compared with \$374,000 for those outside the pool. The largest difference, as discussed in Section 3.5, is in the appeal rate: 9.3% of households in the subject pool filed a tax appeal in the year prior to the experiment (2021), compared with 4.6% among those not in the subject pool.

### **A.2 Feedback Provided in the Information-Provision Experiment**

Table A.2 summarizes the feedback provided in the information-provision experiment. The first column lists the home value bins, and the second column reports the share of subjects in each bin. The third column shows that all subjects received the same feedback (49%) regarding the appeal rate of the richest 1%. The fourth column reports the appeal rate of comparable homes. Because higher-value homes are more likely to appeal, the feedback naturally depends on the subject’s home value bin. A majority of subjects (53%) own homes valued between \$150,000 and \$350,000, for which the feedback is relatively similar, between 6% and 13%. For subjects at the top of the distribution, however, the feedback is much higher—for instance, for those in the 90th percentile, with homes worth \$650,000–\$699,999, the feedback was 30%. The fifth column reports the feedback on the average tax savings of comparable homes. Since the property tax amount increases with home value, it is natural for the expected dollar savings to vary across bins of home value. For the majority of subjects (53%), in homes between \$150,000 and \$350,000, the feedback ranges from \$294 to \$400. But

for wealthier households, the dollars savings can be larger—for example, for subjects in the 90th percentile, with homes worth \$650,000–\$699,999, the feedback on tax savings was \$750.

### **A.3 Decision Trees used for the Willingness to Pay Elicitation**

Section 3.3 explains the dynamic choices subjects faced in the question on willingness to pay to help someone file a tax appeal or to prevent that help. Figure A.1 provides the complete decision trees used in this question. Subjects first decided whether they wanted to help other taxpayers appeal their taxes. Those who chose to help followed the decision tree in Panel A, while those who chose not to help followed the decision tree in Panel B.

### **A.4 Details and Additional Results about the Attitudes Survey**

We recruited 600 U.S. homeowners for the Attitudes Survey. Table A.3 compares the average characteristics of respondents in the Attitudes Survey and the field experiment. Because the two samples were recruited through different methods, their characteristics are not expected to align closely. Indeed, the differences in average characteristics are statistically significant across the board, though often modest in magnitude. Overall, respondents in the field experiment tend to be older, more likely to be male, and less left-leaning.

In addition to the questions on the acceptability of tax avoidance and evasion behaviors discussed in the main text, the survey included questions on awareness of and prior engagement with these behaviors. Specifically, we asked respondents two questions: “Before taking this survey, were you aware of any of these tax reduction strategies?” and “Have you ever used any of these strategies to lower your taxes?” We listed all the tax avoidance and evasion behaviors from the survey, allowing respondents to select all that applied.

Panel A of Figure A.2 presents the results on awareness. At one end, the tax behaviors with the highest awareness are the two forms of tax evasion—“Paying Under the Table” and “Under Report Income”—with a majority (about 60%) of respondents reporting awareness. At the other end, more obscure strategies used primarily by the ultra-wealthy—“Buy, Borrow, Die” and “Carried Interest”—were known by only a minority (about 20%). “Property Tax Appeals” falls toward the higher end of the awareness spectrum, with 44.5% of respondents reporting awareness of this strategy.

Panel B of Figure A.2 shows the responses on prior engagement. These results should be interpreted with caution—due to social desirability bias, respondents likely under-reported such behavior. “Property Tax Appeals” ranks near the top, with 24.1% of respondents reporting that they had filed a property tax appeal in the past.

Lastly, at the end of the survey we included an optional question designed to flag respondents who may have used an AI agent to complete it. To the best of our knowledge, at the time of data collection no standard or effective method existed for detecting AI agents in online surveys, so we devised our own approach. Specifically, we asked respondents to reproduce copyrighted material (the opening credits to *Star Wars*), noting that AI models are typically trained to refuse such requests. Approximately 78% of respondents answered this question, suggesting they were unlikely to have used an AI agent. For the remaining respondents, AI involvement is uncertain—some genuine participants may simply have chosen to skip the question. In any case, the results remain essentially unchanged when we exclude this 22% of the sample.

## A.5 Outliers Beliefs

In total, 248 observations are excluded from the baseline specification because at least one of their prior beliefs was classified as an outlier. We now provide more detail on this classification. Figure A.3 shows the distribution of prior misperceptions, with each panel corresponding to one of the three beliefs. Outliers are shown in red and non-outliers in gray.

Panel A of Figure A.3 displays the distribution of prior misperceptions for the richest-1% appeal rate. The distribution is fairly uniform, with no obvious outliers. This is intuitive: since the true value is close to 50% and responses are bounded between 0% and 100%, there is limited scope for extreme misperceptions. In turn, Panel B of Figure A.3 shows the distribution for the comparable appeal rate. Here the distribution takes on a bell shape, with a small number of responses at the far left and far right, possibly reflecting outliers due to typos or misunderstandings. We aimed to classify as outliers the misperceptions in the bottom 1% and top 1%, but could not achieve this exactly due to ties. We classified as outliers those in the bottom 0.8% and top 0.9%, which corresponds to 139 subjects.

Panel C of Figure A.3 shows the distribution of misperceptions about expected tax savings. For ease of interpretation, this figure reports average expected savings as a share of the tax amount of the corresponding group of comparable homes. Because savings cannot be negative, underestimation is naturally bounded. Overestimation, by contrast, has no upper limit, leaving considerable scope for extreme responses. Indeed, Panel C shows that some individuals vastly overestimated average tax savings—for example, some respondents reported values as high as 90%. These extreme responses are most likely reflecting typos or misunderstandings. Given the natural boundary on underestimation, we focus on the bottom 2% rather than trimming from both tails. While we aimed for the bottom 2%, exact targeting was not possible due to ties. We classified as outliers the bottom 1.87% of the distribution, corresponding to 116 individuals.

## A.6 Additional Results on Belief Updating

As discussed in Section 2, households without a binding cap are expected to update their beliefs about expected savings more than those with a binding cap. Figure A.4 illustrates this comparison: Panel A shows updating for households without a binding homestead cap, while Panel B shows updating for households with a binding homestead cap. The difference in the slopes when the feedback is shown vs. not shown in Panel A is 0.67, much larger than the difference in slopes of 0.25 in Panel B. These results confirm our expectations, showing substantially greater belief updating when the cap is not binding than when it is binding.

The information provision about one belief may influence that belief directly but it may also indirectly influence other beliefs, which is known as cross-learning. Figure 8 in the main text shows that learning about the appeal rates of the richest 1% or of comparable households does not lead households to revise their expectations about their own savings. We now test other potential forms of cross-learning in the information provision experiment. In Panel A of Figure A.6, the x-axis displays the difference between the prior belief and the feedback in expected savings, and the y-axis displays the belief update for the comparable appeal rate. The results in Panel A indicate that the expected-savings treatment produces no meaningful shifts in the comparable appeal rate beliefs. Similarly, Panel B shows that the expected-savings treatment produces no meaningful shifts in the richest-1% appeal rate beliefs. By contrast, Panels C and D reveal statistically significant, though modest, cross-learning between the two appeal-rate beliefs: updating beliefs about the richest-1% leads to small adjustments in beliefs about comparable homes, and vice versa. For example, in Panel D of Figure A.6, the difference in slopes between treatment and control groups is small 0.114 ( $= 0.185 - 0.071$ ) but statistically significant ( $p\text{-value} < 0.001$ ). This evidence suggests that learning the richest-1% appeal rate is 1 pp higher than initially believed increases the perceived appeal rate of comparable homes by about 0.11 pp.

## A.7 Additional Descriptive Statistics

In the field experiment, we included two questions that serve as dependent variables: one measuring the perceived fairness of the wealth gap in appeal rates, and another measuring how justifiable it is to file a tax appeal. Figure A.7 shows the distribution of responses to each question, with one panel per outcome.

## A.8 Further Results and Robustness Checks

Figure 7 in the main text presents the event-study analysis and binned scatterplot analysis for the total effects. Figure A.8 replicates the same analysis, but corresponding to the partial

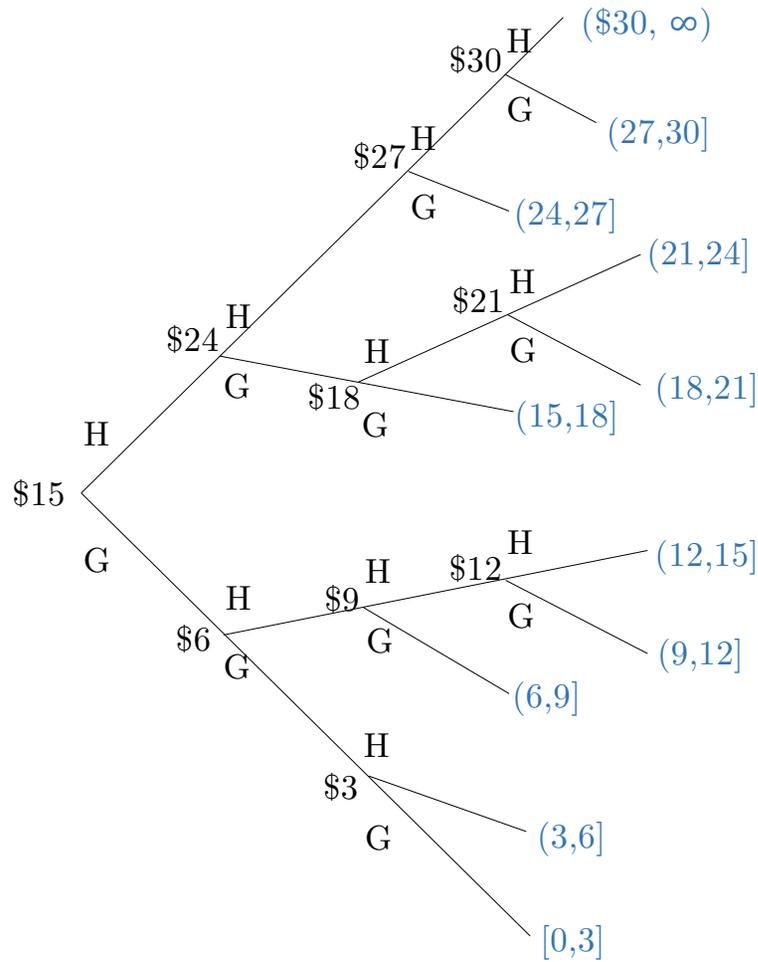
effects instead of the total effects. For example, for expected savings (Panel A of Figure A.8), the coefficient estimate is statistically significant in 2021, the year prior to our intervention. The negative sign of this estimate suggests that our 2022 estimates may underestimate the true effect. Second, we find a statistically significant coefficient estimate in 2020 for the appeals rate of the richest-1%, which is of the same sign and similar magnitude as the 2022 estimate. Finally, we find a statistically significant coefficient estimate in 2017 for appeals of comparable homes.

Regarding the event-study graphs, there are some subtle differences. The estimated “effects” in pre-treatment years are, as expected, always close to zero. The key difference, however, is that some of these pre-treatment effects, although small, are statistically significant—specifically, the coefficient for expected savings in 2021, the coefficients for the richest-1% appeal rate in 2020 and 2018, and the coefficient for the comparable appeal rate in 2017. Because we conduct many falsification checks, it is not surprising that some estimates appear spuriously significant purely by chance. However, out of 15 pre-treatment coefficients we would expect about 1.5 to be statistically significant at the 10% level by chance, but we observe 4. Because of this minor anomaly in the partial effects, we have slightly greater confidence in the total effects specification than in the partial effects specification.

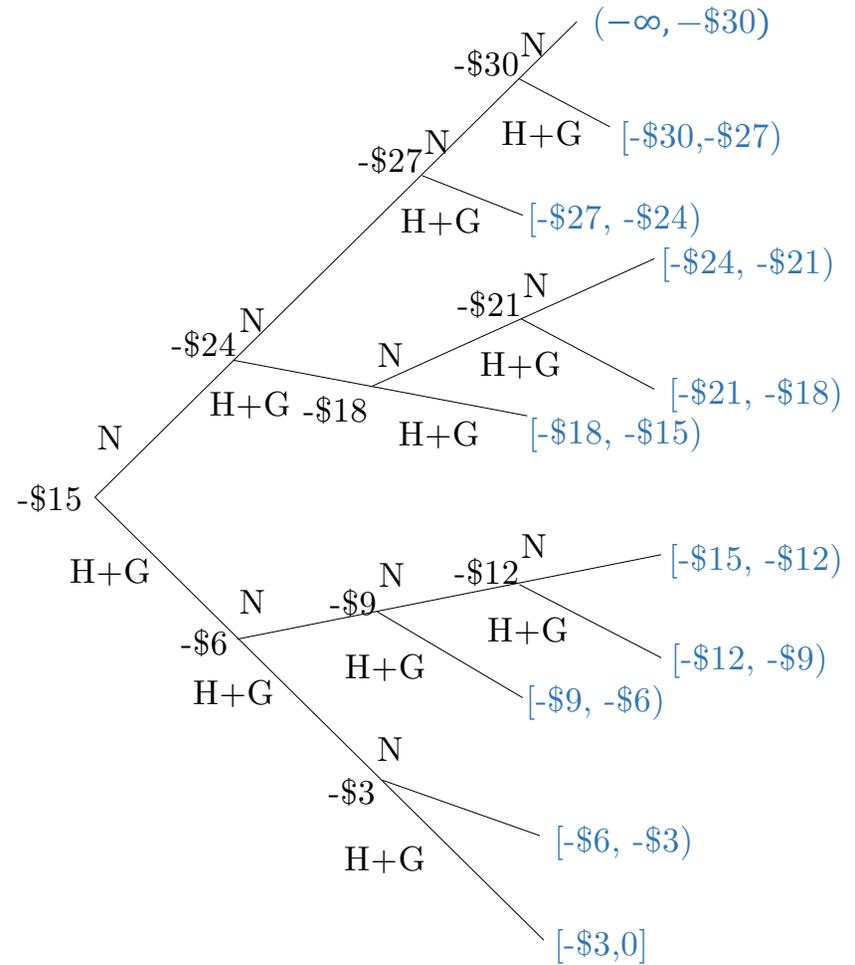
Table A.7 presents further robustness checks. Column (1) reproduces the baseline specification from Table 2, while the other columns report results from alternative specifications. Column (2) includes additional control variables—whether the subject previously appealed, and a set of subject characteristics: age, gender, college graduation and political party. Because these characteristics were measured at the end of the survey, and some respondents completed only the main module rather than the full survey, including these controls slightly reduces the sample size. Column (3) includes individuals with outlier misperceptions of expected savings, and column (4) includes those with outlier misperceptions of comparable appeal rates. Column (5) excludes subjects who failed the attention check. Across all specifications, the results remain consistent. The only notable difference is that in column (3), the total effect of tax savings is larger than in column (1), but due to much larger standard errors, it becomes statistically insignificant. This is expected, as including extreme outliers typically reduces precision. By contrast, relative to column (1), the total effects in column (4) are larger in magnitude and remain statistically significant.

Figure A.1: Decision Trees for Willingness to Pay Measurement

A. Wants to Help



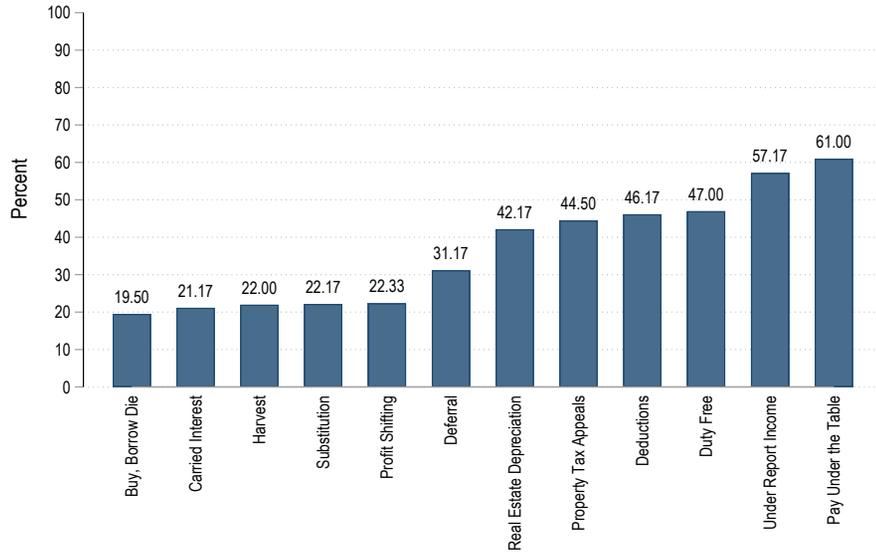
B. Does Not Want to Help



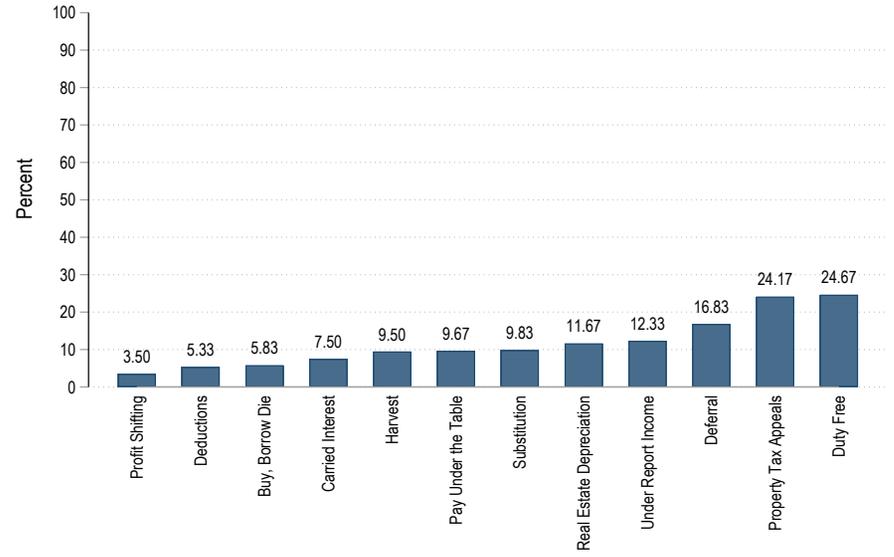
Notes: This figure displays the decision trees that subjects faced during the willingness to pay to help others appeal their taxes. In this figure, “G” represents the subject’s decision to choose the gift card, “H” represents the subject’s decision to have us help the taxpayer, and “N” represents the subject’s decision to have us not help the taxpayer. All subjects began by deciding whether to help the other taxpayer. If they chose to help the other taxpayer, they went through the decision tree in Panel A. If they chose not to help the other taxpayer, they went through the decision tree in Panel B.

Figure A.2: Awareness and Engagement of Tax Avoidance/Evasion Strategies

A. Awareness



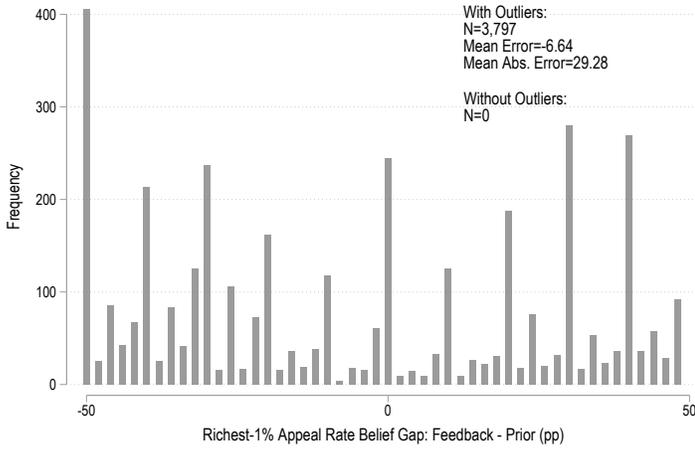
B. Engagement



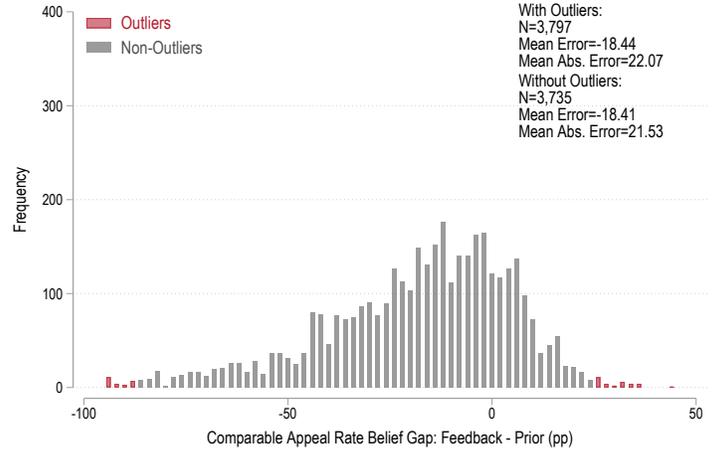
Notes: This figure uses data from the online perceptions survey. Panel A displays the percentage of subjects who were previously aware of each strategy. Panel B displays the percent of subjects who had previously engaged in each strategy.

Figure A.3: Distribution of the Appeal Rate and Expected Savings Gaps

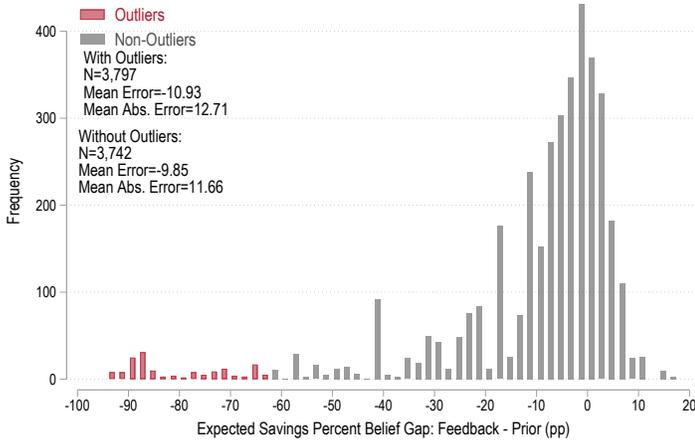
**A. Richest-1% Appeal Rate**



**B. Comparable Appeal Rate**



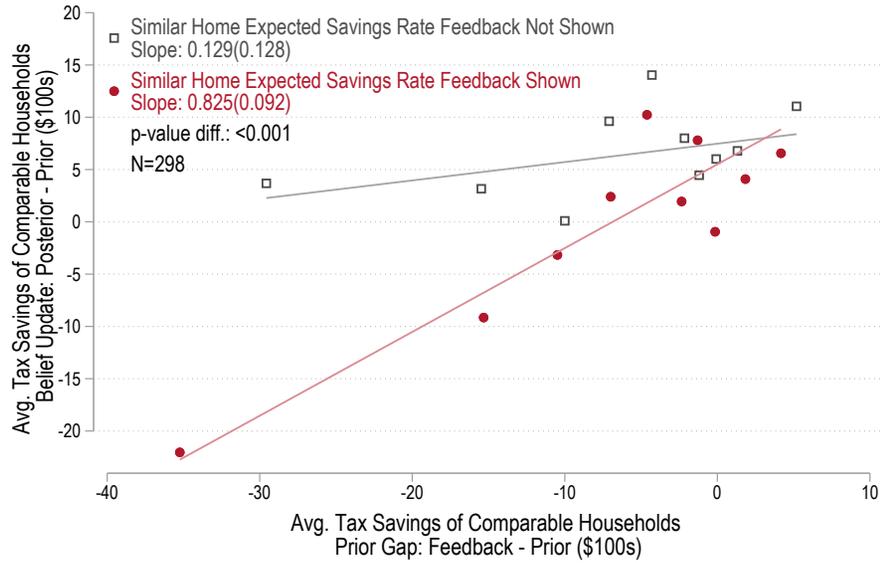
**C. Expected Savings**



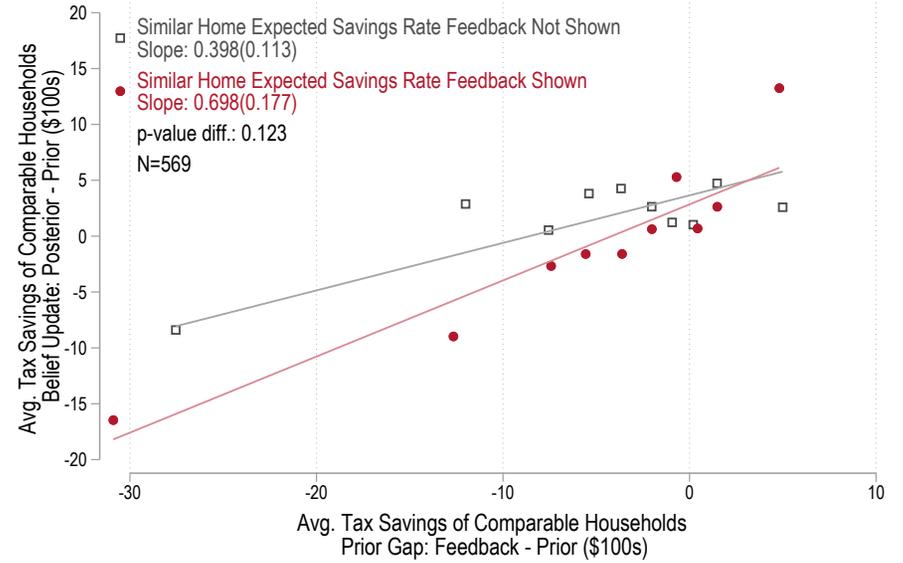
Notes: This figure displays the distribution of prior beliefs in gray along with the responses marked as outliers in red. Panel A displays the distribution of prior beliefs for the richest-1% appeal rates. Panel B displays the distribution of prior beliefs for the comparable homes appeal rates. Panel C displays the distribution of prior beliefs about expected savings.

Figure A.4: Updating on Tax Savings With and Without a Binding Homestead Cap

**A. Without Binding Homestead Cap**



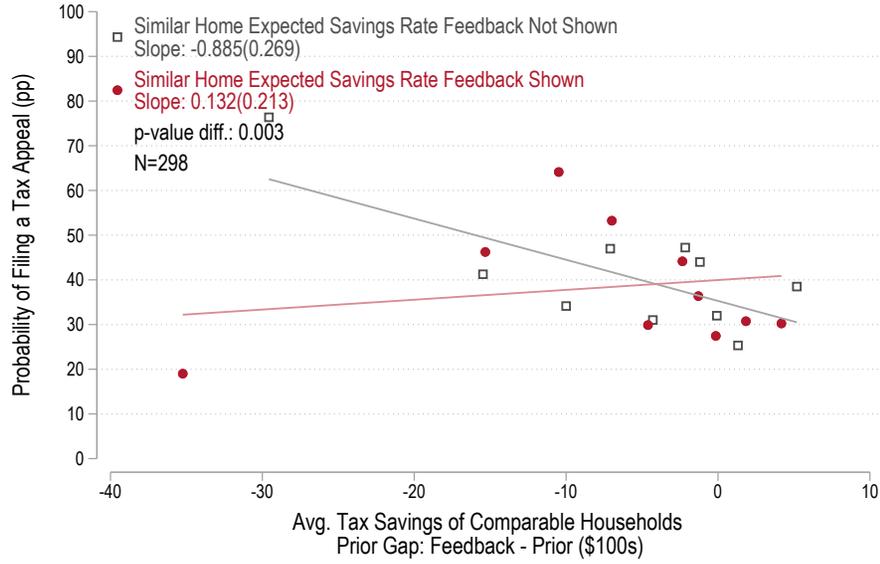
**B. With Binding Homestead Cap**



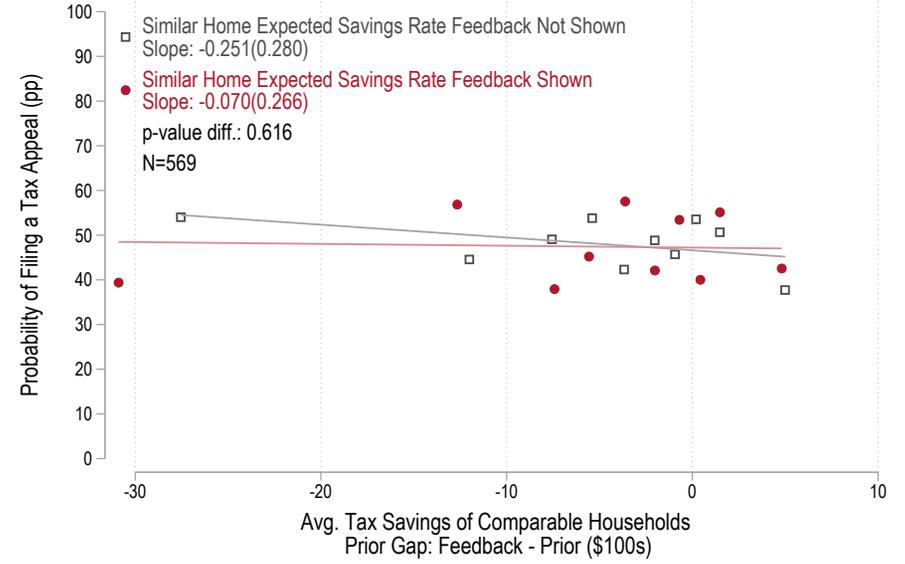
Notes: This figure is analogous to Panel B of Figure 6 in the main text, but separating the subjects by whether or not they have a binding homestead cap.

Figure A.5: Intention-to-Treat Effect of Savings with and withing a Binding Homestead Cap

**A. Without Binding Homestead Cap**



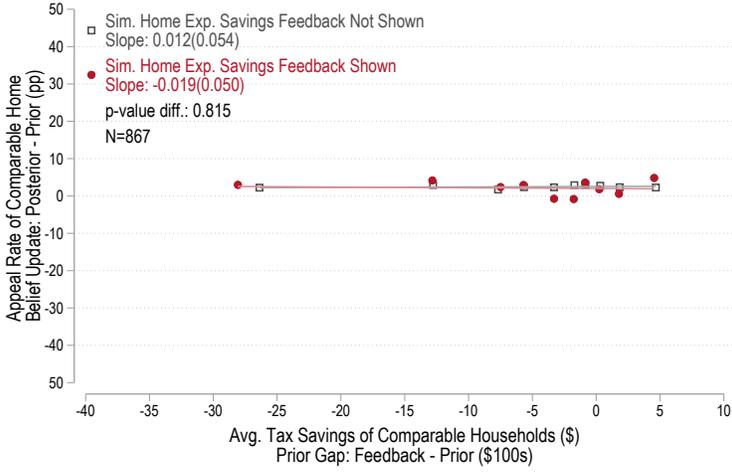
**B. With Binding Homestead Cap**



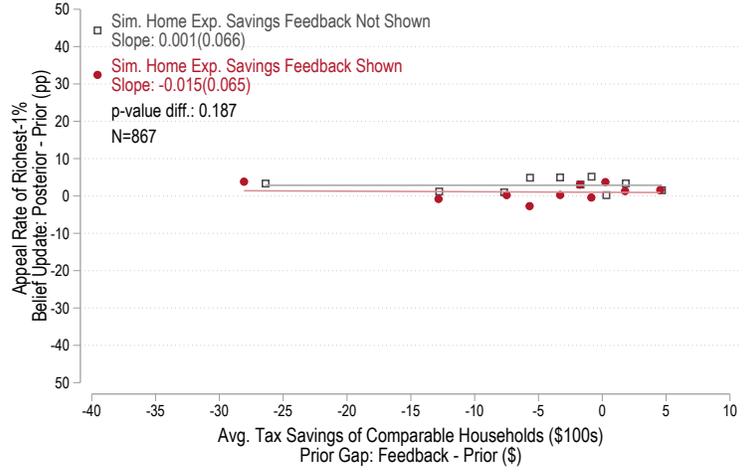
Notes: This figure is analogous to Panel B of Figure 7 in the main text, but separating the subjects by whether or not they have a binding homestead cap.

Figure A.6: Additional Tests of Cross-Learning in the Information-Provision Experiment

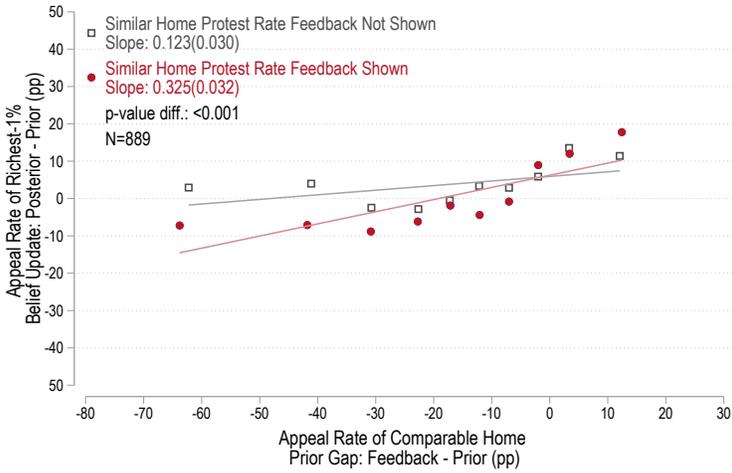
**A. From Savings to Comparable Appeal Rate**



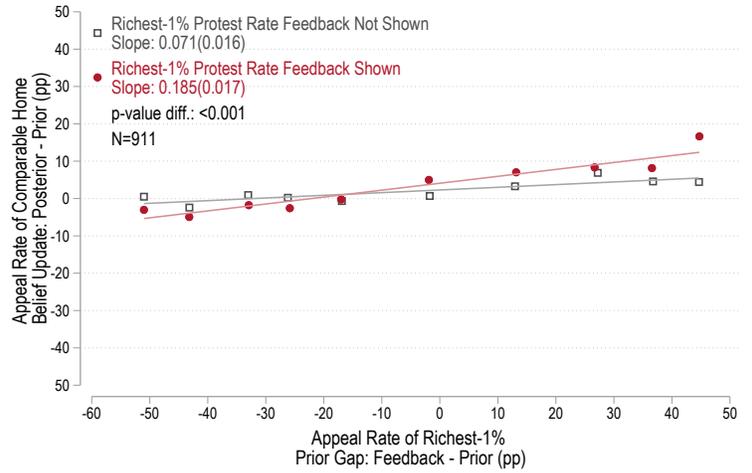
**B. From Savings to Richest-1%**



**C. From Comparable Appeal Rate to Richest-1%**

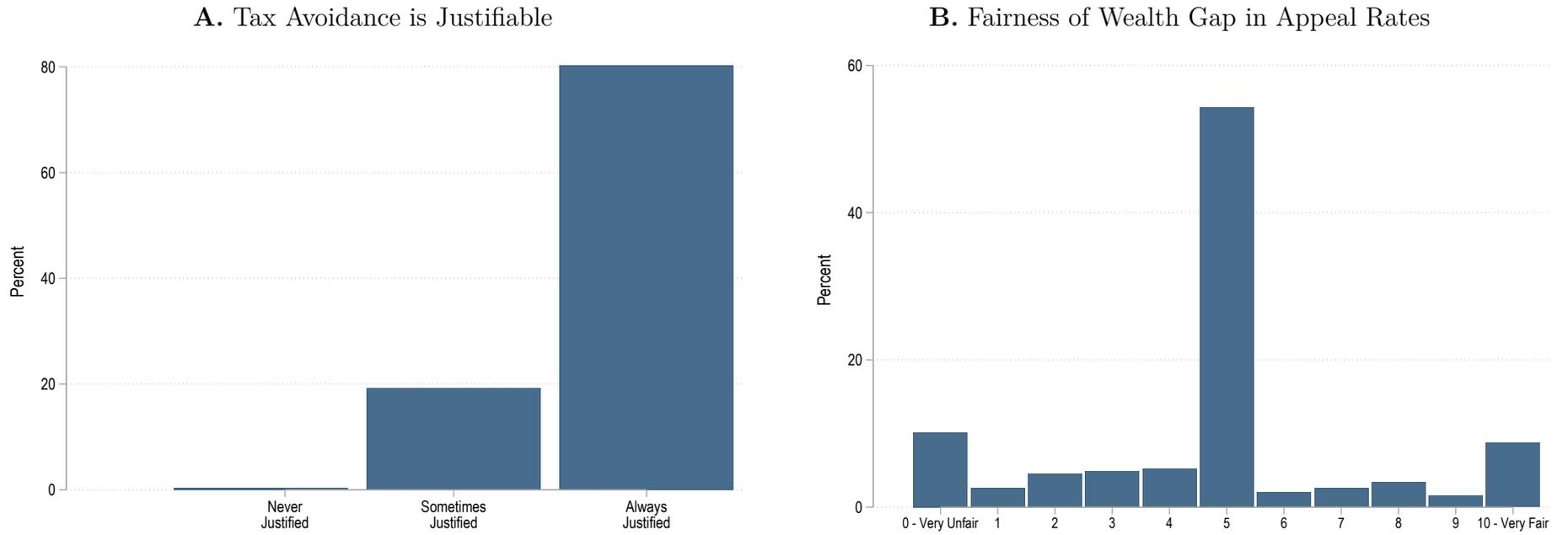


**D. From Richest-1% to Comparable Appeal Rate**



Notes: This figure is analogous to Figure 8 in the main text, but testing other cross-learning possibilities in the information provision experiment.

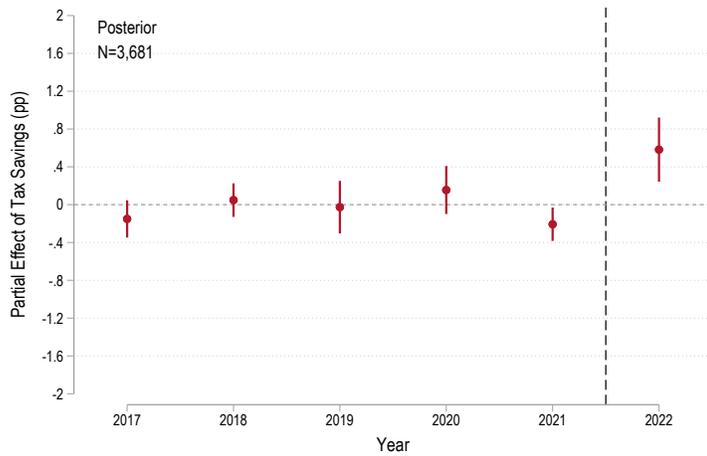
Figure A.7: Additional Descriptive Analysis



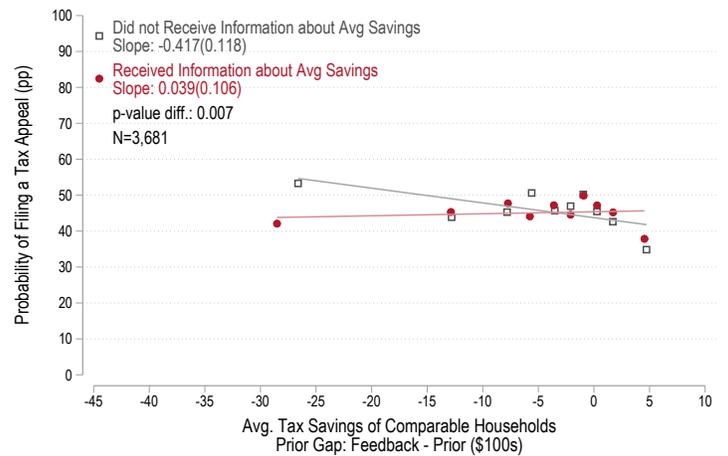
Notes: Panel A shows the distribution of responses to the question “How justifiable is it to lawfully reduce your tax bill if you have a chance?” Panel B shows the distribution of responses to “You said that [Richest-1% appeal rate posterior]% of the richest households file their tax protest, while [Comparable appeal rate posterior]% of households like yours file a protest. Do you think this is fair or unfair?” The posterior beliefs are subject-specific and those elicited earlier in the experiment. The x-axis in Panel A represents a justifiability scale, and in Panel B it represents a 0–10 fairness scale. The y-axis in both panels shows the fraction of subjects selecting each possible choice.

Figure A.8: 2SLS Partial Effects: Event-Study Analysis and Reduced-Form Binned Scatterplots

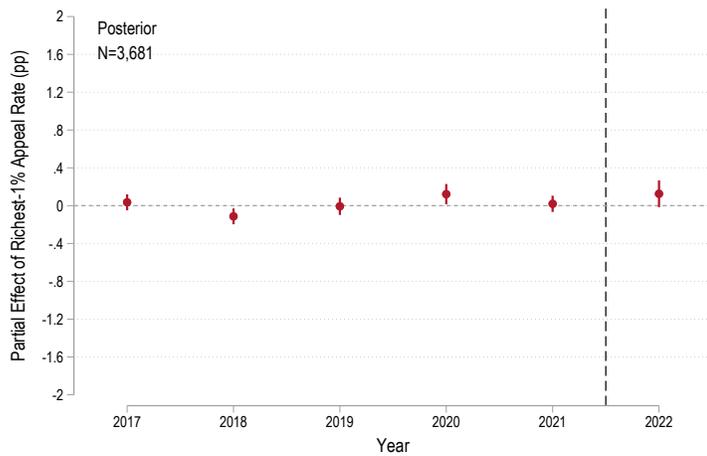
**A. Expected Savings: Event-Study**



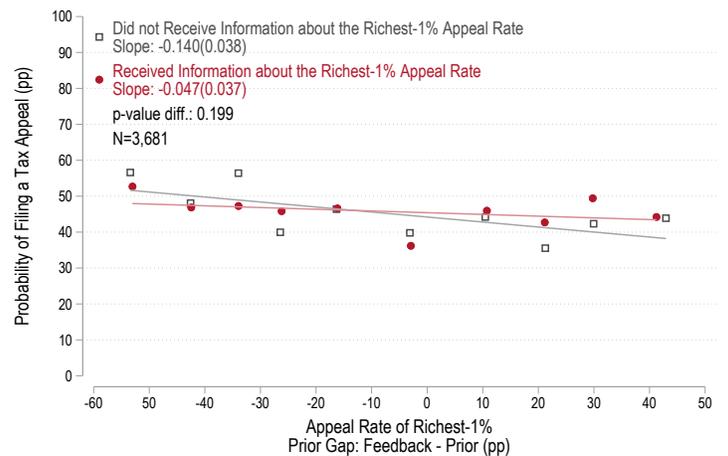
**B. Expected Savings: Reduced Form**



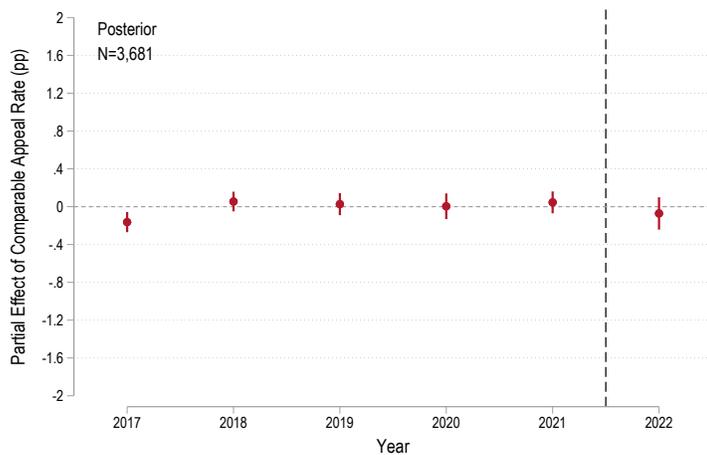
**C. Richest -1% Appeal Rate: Event-Study**



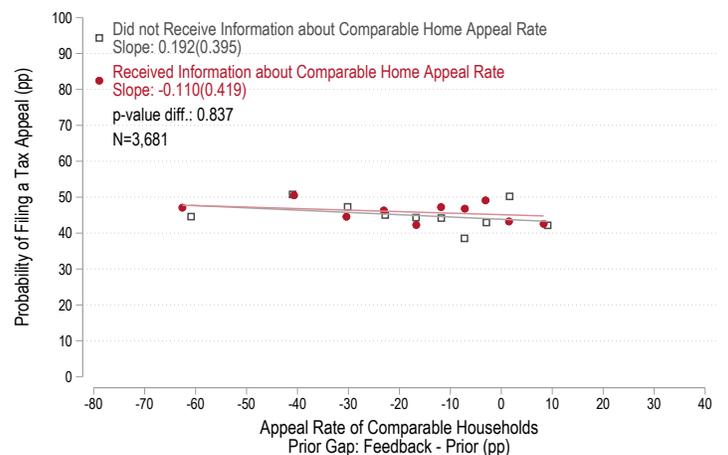
**D. Richest -1% Appeal: Reduced Form**



**E. Comparable Appeal Rate: Event-Study**



**F. Comparable Appeal Rate: Reduced Form**



Notes: This figure is analogous to Figure 7 in the main text but reports event-study and reduced-form binned scatterplot estimates from regressions capturing partial effects rather than total effects.

Table A.1: Characteristics of Respondents to the Field Survey

	Subject Pool			
	Letter (1)	Yes (2)	No (3)	p-value test (2 vs. 3)
2022 Home Value (\$1,000)	376.982 (0.814)	448.006 (4.224)	374.285 (0.829)	< 0.001
2022 Property Tax Amount (\$1,000s)	8.513 (0.017)	9.697 (0.088)	8.468 (0.017)	< 0.001
Homestead Exemption (%)	65.304 (0.150)	87.014 (0.554)	64.480 (0.154)	< 0.001
Homestead Exemption and Binding Cap (%)	45.094 (0.157)	66.205 (0.780)	44.292 (0.160)	< 0.001
2021 Appeal Rate (%)	4.840 (0.068)	9.318 (0.479)	4.670 (0.068)	< 0.001
2020 Appeal Rate (%)	8.556 (0.088)	17.169 (0.622)	8.229 (0.088)	< 0.001
2019 Appeal Rate (%)	6.343 (0.077)	11.464 (0.525)	6.149 (0.077)	< 0.001
2018 Appeal Rate (%)	6.115 (0.076)	10.052 (0.496)	5.966 (0.076)	< 0.001
Multiple Owners (%)	24.199 (0.135)	30.128 (0.756)	23.974 (0.137)	< 0.001
Living Area (1,000s Sq. Feet)	2.063 (0.003)	2.302 (0.014)	2.054 (0.003)	< 0.001
Number of Bedrooms	3.301 (0.002)	3.419 (0.012)	3.296 (0.002)	< 0.001
Number of Baths	2.101 (0.002)	2.287 (0.012)	2.094 (0.002)	< 0.001
Observations	100,615	3,681	96,934	

Notes: Average pre-treatment (i.e., before the start of letter delivery) characteristics of subjects in the field experiment, with standard errors in parentheses. Column (1) corresponds to all subjects in the field experiment who were mailed a letter. Columns (2)–(3) break down that sample into households that responded to the Field Survey and households that did not respond to the Field Survey, respectively. Column (4) reports the p-value of the test of equal means across the respondent and non-respondent groups.

Table A.2: Summary of Feedback Provided in the Information-Provision Experiment

Subject's Own Home Value	Percent of Subjects	Richest-1% Appeal Rate	Comparables Appeal Rate	Avg. Savings
\$50,000 - \$99,999	0.73%	49%	5%	\$240
\$100,000 - \$149,999	3.21%	49%	5%	\$289
\$150,000 - \$199,999	10.46%	49%	6%	\$294
\$200,000 - \$249,999	15.95%	49%	8%	\$322
\$250,000 - \$299,999	14.67%	49%	11%	\$377
\$300,000 - \$349,999	11.95%	49%	13%	\$400
\$350,000 - \$399,999	9.70%	49%	17%	\$440
\$400,000 - \$449,999	7.44%	49%	20%	\$526
\$450,000 - \$499,999	6.28%	49%	23%	\$650
\$500,000 - \$549,999	3.94%	49%	25%	\$692
\$550,000 - \$599,999	3.53%	49%	25%	\$775
\$600,000 - \$649,999	2.58%	49%	30%	\$793
\$650,000 - \$699,999	1.79%	49%	30%	\$750
\$700,000 - \$749,999	1.52%	49%	31%	\$841
\$750,000 - \$799,999	1.11%	49%	34%	\$905
\$800,000 - \$849,999	0.95%	49%	32%	\$980
\$850,000 - \$899,999	0.46%	49%	35%	\$1,104
\$900,000 - \$949,999	0.44%	49%	37%	\$1,138
\$950,000 - \$999,999	0.41%	49%	35%	\$1,304
\$1,000,000 - \$1,049,999	0.46%	49%	38%	\$1,119
\$1,050,000 - \$1,099,999	0.41%	49%	36%	\$1,091
\$1,100,000 - \$1,149,999	0.35%	49%	35%	\$1,334
\$1,150,000 - \$1,199,999	0.35%	49%	37%	\$1,405
\$1,200,000 - \$1,249,999	0.14%	49%	38%	\$1,204
\$1,250,000 - \$1,299,999	0.22%	49%	39%	\$1,139
\$1,300,000 - \$1,349,999	0.16%	49%	41%	\$1,236
\$1,350,000 - \$1,399,999	0.22%	49%	41%	\$1,343
\$1,400,000 - \$1,449,999	0.11%	49%	43%	\$1,840
\$1,450,000 - \$1,499,999	0.14%	49%	42%	\$1,561
\$1,500,000 - \$1,549,999	0.11%	49%	46%	\$1,714
\$1,550,000 - \$1,599,999	0.14%	49%	41%	\$1,890
\$1,600,000 - \$1,649,999	0.08%	49%	45%	\$1,795
\$1,650,000 - \$1,699,999	0%	49%	41%	\$1,740
\$1,700,000 - \$1,749,999	0%	49%	45%	\$2,015
\$1,750,000 - \$1,799,999	0%	49%	49%	\$1,909
\$1,800,000 - \$1,849,999	0%	49%	50%	\$1,600

Notes: The table reports the feedback provided in the information provision experiment. The statistics were computed using data from the DCAD administrative records, corresponding to the 2021 appeals. The first column lists the home value bins of the subjects. The second column shows the percentage of subjects in each bin. The third column reports the appeal rate of the richest-1%, which was the same value (49%) for all subjects. The fourth presents the correct appeal rate of comparable homes. The last column presents the correct average tax savings for comparable homes.

Table A.3: Characteristics of Respondents to Surveys

	Survey Type		
	Field (1)	Attitude (2)	p-value (3)
Republican (%)	32.723 (0.794)	47.667 (2.041)	< 0.001
Democrat (%)	49.170 (0.846)	43.333 (2.025)	0.008
Independent (%)	18.106 (0.651)	9.000 (1.169)	< 0.001
Female (%)	41.726 (0.831)	48.667 (2.042)	0.001
Age	47.005 (0.188)	40.207 (0.538)	< 0.001
Race: White (%)	55.436 (0.838)	62.833 (1.975)	0.001
Race: Black (%)	11.893 (0.545)	24.500 (1.757)	< 0.001
Race: Latino (%)	18.450 (0.654)	4.000 (0.801)	< 0.001
Race: Other (%)	14.420 (0.592)	2.333 (0.617)	< 0.001
Lives in Texas (%)	100.000 (0.000)	26.167 (1.796)	< 0.001
Observations	3,681	600	

Notes: Average pre-treatment characteristics of subjects in the field experiment, with standard errors in parentheses. Column (1) corresponds to subjects who responded to the Field Survey. Column (2) corresponds to subjects in the attitudes survey. Column (3) reports the p-value of the test of equal means across the groups.

Table A.4: Full List of Tax Behaviors included in the Attitudes Survey

<b>Tax Behavior</b>	<b>Explanation</b>
Property Tax Appeals	You can lower your property taxes by filing a tax appeal. For example, if the county says your home is worth \$400,000, you can file an appeal to argue that it is worth \$375,000. If you win the appeal—like many homeowners do—your property taxes will go down because they’ll now be based on the lower \$375,000 assessment. Some homeowners go through this process themselves, while others hire professionals to handle it.
Tax Deferral Through Retirement Accounts	People lower their taxable income by contributing to retirement accounts like 401(k)s and IRAs. Instead of paying taxes immediately, they delay them until they withdraw the money, usually in retirement when their tax rate may be lower. This strategy lets taxpayers legally reduce their tax burden by shifting taxes to a future time when they might owe less. Contribution limits, withdrawal timing, and tax law changes affect how well this works.
Buy, Borrow, Die	Wealthy individuals avoid taxes by borrowing against their investments instead of selling them. They take out loans using stocks or real estate as collateral, allowing them to access money without triggering capital gains taxes. When they die, their heirs inherit the assets at a new tax value, erasing the unpaid capital gains taxes. This strategy lets individuals legally reduce their tax burden by replacing taxable income with tax-free loan money. Estate planning and loan costs affect its success.
Harvesting Tax Losses	Investors reduce their tax bills by selling assets at a loss to cancel out taxes on profitable investments. If their losses exceed gains, they lower their taxable income up to a limit and carry forward extra losses to future years. This strategy lets investors legally reduce their tax burden by balancing their investment profits with losses. Market trends, tax laws, and timing play key roles in how well it works.
Real Estate Depreciation	Property owners lower their taxable income by claiming depreciation, which treats buildings as losing value over time. Even if their property gains market value, they still deduct part of its cost each year. This strategy lets real estate investors legally reduce their tax burden by reporting rental income as lower than it actually is. IRS rules, property type, and long-term tax planning determine how much they save.
Carried Interest	Investment managers classify their earnings as capital gains instead of regular income to pay a lower tax rate. Instead of paying higher income tax rates on their compensation, they pay the lower long-term capital gains tax rate. For example, a private equity manager who earns a \$10 million performance bonus can structure it as carried interest, reducing their tax rate from 37% (ordinary income tax) to 20% (capital gains tax). This allows investment managers to reduce their tax liability using rules intended for investors rather than salaried workers.
Profit Shifting	Multinational companies lower their tax bills by moving profits to countries with lower tax rates. They adjust prices on sales between their own branches, charge overseas offices for brand rights, or register businesses in tax-friendly locations. This strategy lets corporations legally reduce their tax burden by reporting income in low-tax countries instead of high-tax ones. Global tax laws, corporate structure, and government regulations shape how effective this is.
Tax Avoidance through Substitution	Consumers save money by choosing lower-taxed products instead of higher-taxed ones. For example, a smoker might buy rolling tobacco instead of pre-packaged cigarettes because it’s taxed less. Others switch to vaping or e-cigarettes, which some governments tax less. This strategy lets individuals legally reduce their tax burden by selecting products with lower tax rates. Local tax laws, availability, and government regulations determine how much they save.
Duty Free Stores	Travelers lower their tax costs by shopping at duty-free stores in airports, cruise ports, and border locations. These stores sell alcohol, perfume, and luxury goods without import taxes or sales tax. Since the goods are meant for international travelers, they do not face standard retail taxes. This strategy lets individuals legally reduce their tax burden by buying products in tax-exempt zones. The amount they save depends on customs limits and enforcement.
Under Reporting Income	A person or business can fail to report all of their income to tax authorities. This can include receiving cash payments and not declaring them, underreporting sales, or misclassifying income. By doing this, they avoid paying taxes that would otherwise be due.
Paying Workers under the Table	An employer can pay workers in cash without reporting the wages to tax authorities. This allows them to avoid payroll taxes, Social Security, Medicare, and unemployment insurance contributions. Employees who receive cash payments do not have taxes withheld and may not have access to benefits like Social Security, workers’ compensation, or unemployment insurance.
Falsifying Deductions or Expenses	A taxpayer can claim false deductions or inflate business expenses on their tax return. This can include overstating business costs, listing personal purchases as business expenses, or fabricating dependents to receive tax credits. By reducing their taxable income, they decrease the amount of taxes owed.

Table A.5: Correlates of Willingness to Help Others Appeal

Group	Share Favoring Aid to		Share Opposing Aid to	
	Poorest-1%	Richest-1%	Poorest-1%	Richest-1%
	(1)	(2)	(3)	(4)
All [N=35,02]	90.520 (0.495)	40.320 (0.829)	5.540 (0.387)	41.319 (0.832)
Female [N=1,458]	91.975 (0.712)	38.477 (1.275)	4.458 (0.541)	42.112 (1.294)
Male [N=2,032]	89.567 (0.678)	41.634 (1.094)	6.201 (0.535)	40.699 (1.090)
Self-Identify as Democrat [N=1,704]	91.960 (0.659)	33.099 (1.140)	4.636 (0.510)	48.415 (1.211)
Self-Identify as Republican [N=1,137]	90.062 (0.888)	49.868 (1.483)	5.981 (0.704)	31.135 (1.374)
Self-Identify as Independent [N=622]	88.264 (1.292)	41.961 (1.980)	6.431 (0.984)	40.836 (1.972)
Below Median Home Value [N=922]	90.347 (0.973)	40.130 (1.615)	5.206 (0.732)	42.408 (1.628)
Above Median Home Value [N=2,580]	90.581 (0.575)	40.388 (0.966)	5.659 (0.455)	40.930 (0.968)
Appeal Inequality Unfair [N=954]	91.405 (0.908)	25.996 (1.421)	5.136 (0.715)	56.080 (1.608)
Appeal Inequality Fair [N=2,548]	90.188 (0.589)	45.683 (0.987)	5.691 (0.459)	35.793 (0.950)
Owner Appeal [N=1,620]	91.728 (0.685)	42.284 (1.228)	4.506 (0.516)	39.321 (1.214)
Owner Did Not Appeal [N=1,882]	89.479 (0.566)	38.629 (1.142)	6.429 (0.566)	43.039 (1.142)

Notes: This table shows the share of subjects with positive (favoring) or negative (opposing) willingness to pay to help a homeowner in a given part of the house value distribution appeal their property taxes. Standard errors in parentheses. Indifference (WTP = \$0) towards aid for each group is omitted.

Table A.6: Main Results: 2SLS with Reduced-Form and First-Stage Results

	Protested in 2022	
	Total (1)	Partial (2)
<i>A. Effects of Beliefs on Appeals (2SLS)</i>		
Expected Savings (\$100s)	1.302** (0.570)	0.583*** (0.206)
Richest-1% Appeal Rate	-0.034 (0.142)	0.126 (0.086)
Comparable Appeal Rate	-0.054 (0.157)	-0.072 (0.104)
<i>B. Reduced Form</i>		
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times H_i$	0.356 (0.326)	0.275 (0.050)
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times (1 - H_i)$	0.671** (0.291)	0.498*** (0.192)
$T_i^w \times (w_{i,t-1}^{\text{end}} - w_{i,t-1}^{\text{prior}})$	-0.024 (0.101)	0.064 (0.050)
$T_i^c \times (c_{i,t-1}^{\text{end}} - c_{i,t-1}^{\text{prior}})$	-0.038 (0.112)	-0.012 (0.058)
<i>C. First Stage: Savings Beliefs</i>		
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times H_i$	0.294 (0.192)	0.434*** (0.089)
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times (1 - H_i)$	0.678*** (0.139)	0.846*** (0.142)
$T_i^w \times (w_{i,t-1}^{\text{end}} - w_{i,t-1}^{\text{prior}})$		-0.013 (0.014)
$T_i^c \times (c_{i,t-1}^{\text{end}} - c_{i,t-1}^{\text{prior}})$		0.011 (0.014)
<i>D. First Stage: Richest-1% Beliefs</i>		
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times H_i$		0.118 (0.078)
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times (1 - H_i)$		0.146 (0.327)
$T_i^w \times (w_{i,t-1}^{\text{end}} - w_{i,t-1}^{\text{prior}})$	0.709*** (0.030)	0.635*** (0.018)
$T_i^c \times (c_{i,t-1}^{\text{end}} - c_{i,t-1}^{\text{prior}})$		0.202*** (0.025)
<i>E. First Stage: Comparable Beliefs</i>		
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times H_i$		0.286 (0.346)
$T_i^s \times (s_{i,t-1}^{\text{end}} - s_{i,t-1}^{\text{prior}}) \times (1 - H_i)$		-0.241 (0.387)
$T_i^w \times (w_{i,t-1}^{\text{end}} - w_{i,t-1}^{\text{prior}})$		0.117*** (0.018)
$T_i^c \times (c_{i,t-1}^{\text{end}} - c_{i,t-1}^{\text{prior}})$	0.708*** (0.053)	0.612*** (0.261)
Mean outcome (baseline)	45.933	45.933
Observations:		
Expected Savings	867	
Richest-1% Appeal Rate	911	
Comparable Appeal Rate	889	
Full Sample		3,675

Notes: Significance levels: \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses. Panel A: Each column reports 2SLS estimates from three regressions using Equation 5 for expected savings, richest-1% appeal rate, and comparable appeal rate on protesting in 2022. Panel B: Each column reports the reduced form effects of excluded instruments on protesting in 2022. Panel C: Each column reports the effects of excluded instruments on savings beliefs. Panel D: Each column reports the effects of excluded instruments on beliefs about the richest-1%'s appeal rate. Panel(E) reports the effects of excluded instruments on the appeal rates of comparable homes. Column (1) displays estimates of the total effects. Column (2) displays the partial effects.

Table A.7: Robustness Checks: Causal Effects of Beliefs (2SLS Estimates)

	Owner Protested in 2022				
	(1)	(2)	(3)	(4)	(5)
<b>Panel A: Total Effects</b>					
Expected Savings (\$100s)	1.302** (0.570)	1.380** (0.562)	1.472 (1.351)	1.399** (0.553)	1.364* (0.759)
Richest-1% Appeal Rate	-0.034 (0.142)	-0.016 (0.142)	-0.022 (0.140)	-0.025 (0.140)	-0.061 (0.149)
Comparable Appeal Rate	-0.054 (0.157)	0.016 (0.142)	-0.022 (0.140)	-0.053 (0.149)	-0.061 (0.149)
Kleibergen-Paap F-Statistic:					
Expected Savings	12.868	14.268	1.299	14.181	8.939
Richest-1% Appeal Rate	561.011	524.237	574.524	570.765	589.493
Comparable Appeal Rate	179.349	176.332	176.332	169.659	165.543
Observations:					
Expected Savings	867	862	889	890	776
Richest-1% Appeal Rate	911	906	928	920	799
Comparable Appeal Rate	889	880	906	900	776
<b>Panel B: Partial Effects</b>					
Expected Savings (\$100s)	0.583*** (0.206)	0.570*** (0.207)	0.731** (0.361)	0.638*** (0.208)	0.482** (0.216)
Richest-1% Appeal Rate	0.126 (0.086)	0.123 (0.087)	0.135 (0.084)	0.138* (0.085)	0.123 (0.088)
Comparable Appeal Rate	-0.072 (0.104)	-0.083 (0.105)	-0.065 (0.102)	-0.089 (0.103)	-0.090 (0.111)
Kleibergen-Paap F-Statistic					
Mean Outcome (Control)	15.106	15.161	15.215	14.615	13.441
Exclude Saving Outliers	45.933	47.315	46.279	45.863	47.500
Exclude Appeal Outliers	✓	✓		✓	✓
Exclude Inattentive	✓	✓	✓		✓
Observations	3,681	3,496	3,735	3,742	3,229

Notes: Significant at \*10%, \*\*5%, \*\*\*1%. Robust standard errors in parentheses. This table reports 2SLS estimates of equation 5. Column (1) reproduces the main results. Column (2) reports analogous results but includes control variables. Column (3) presents analogous results but includes the subjects who had outliers on savings beliefs. Column (4) presents analogous results but includes subjects with outliers on appeal rate beliefs. Column (5) presents analogous results but excludes subjects who failed the attention check.

## B Expert Forecast Survey

We assess the extent to which experts anticipated the experimental results using a forecast survey administered to a sample of experts. A copy of the full survey instrument is provided in Appendix H. The survey follows best practices outlined in DellaVigna et al. (2019). It begins by briefly describing the experiment and then asks experts to predict the effect of each piece of information on appeal behavior, in a format directly comparable to the experimental estimates. Following Giacobasso et al. (2025), we elicit forecasts of the causal effect of beliefs rather than the intention-to-treat effects of information provision, which may be harder for respondents to assess. For each belief, we first elicit the effect qualitatively—that is, whether an increase in the belief would have a positive, negative, or no effect on the probability that the household files a tax appeal. After this qualitative question, we also elicit quantitative predictions. To reduce concerns that rounded responses might attenuate the elicited effect sizes, we ask for predicted effects of: (i) a 10 pp increase in beliefs about the appeal rate of the richest-1%; (ii) a 10 pp increase in beliefs about the appeal rate of comparable homes; and (iii) a \$100 increase in expected savings. Lastly, our forecast survey also included two questions about the revealed-preference measure of the acceptability of tax appeals. More precisely, they were asked to predict the share of subjects who would be willing to provide help to a household from the richest-1% to file a tax appeal; and also asked about the share of households who would be willing to provide help to a household from the poorest-1%.

We collected expert responses by emailing 289 academics with publications on related topics. Invitations were sent via email during the second week of July 2023, and responses followed shortly thereafter. The final sample includes responses from 84 experts, composed of 95% professors, 4% researchers, and 1% in a policy position. Most respondents (81%) are from the field of economics; 74% report having conducted research on taxation, and 23% on preferences for redistribution.

We begin with the qualitative predictions about the effects of each of the three beliefs. A first indication that the results are not obvious to experts is their lack of confidence in their forecasts. Only 11% described themselves as “very confident” or “extremely confident” about the effects of the tax savings, 10% about the effects of the richest-1% appeal rate, and 10% about the effects of the comparable appeal rate. Their predictions are shown in Panels A–C of Figure B.1, one panel for each belief. Most experts (66%) forecasted that higher beliefs about tax savings would increase the likelihood of filing an appeal, which aligns with our experimental evidence. A somewhat larger share (70%) predicted that beliefs about the appeal rate of the richest-1% would raise appeal rates, a prediction not borne out in the data. An even greater majority (76%) anticipated positive effects from beliefs about the appeal rate

of comparable homes, which again contradicts our null result.

In turn, Figure B.2 presents the quantitative forecasts, scaled when appropriate to allow direct comparison with the experimental estimates.<sup>63</sup> Panel A plots the predicted effect of a \$100 increase in expected savings, Panel B the effect of a 1 pp increase in the richest-1% appeal rate, and Panel C the effect of a 1 pp increase in the comparable appeal rate. In each panel, the green line depicts the cumulative distribution function of forecasts, the vertical gray line marks the experimental point estimate, and the shaded area shows the corresponding 90% confidence interval. Overall, the quantitative forecasts mirror the qualitative ones: experts tended to underestimate the effect of tax savings but overestimate the effects of perceived appeal rates for both the richest-1% and comparable households.

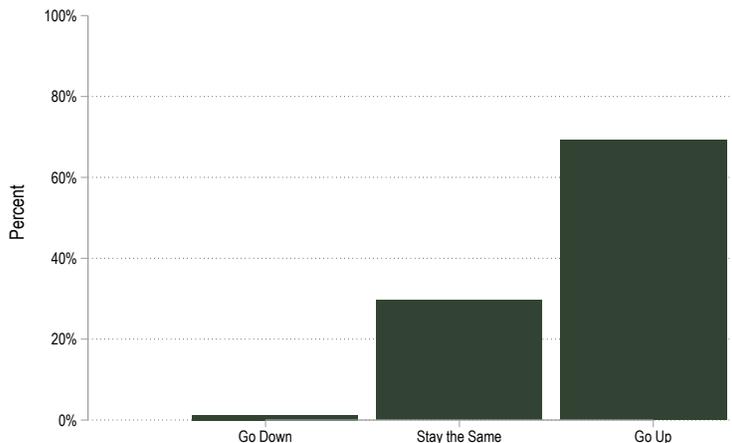
Lastly, Panel D of Figure B.1 reports the forecasts for the revealed-preference measure of the acceptability of tax appeals. About 9.8% of experts expected homeowners to be willing to pay to help someone in the richest-1% reduce their tax burden, while 43.9% predicted homeowners would pay to help someone in the poorest-1%. Expert forecasts were largely inaccurate in that they substantially underestimated the willingness to help both groups. This inaccuracy aligns with their low confidence, as only 6.4% of respondents described themselves as “very confident” or “extremely confident” in these forecasts. On the other hand, the predictions were directionally accurate in a *relative* sense, as experts anticipated greater acceptance for helping the poorest-1% than the richest-1%.

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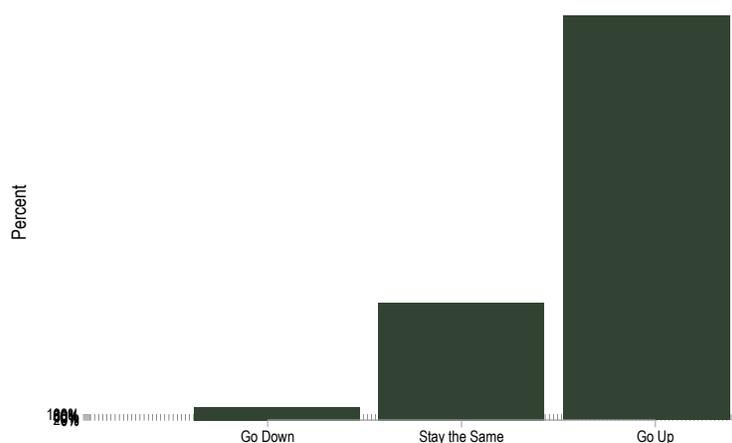
<sup>63</sup> We consider the total effects specification the most relevant benchmark, since the forecast elicitation did not instruct experts to hold other beliefs constant.

Figure B.1: Expert Forecasts

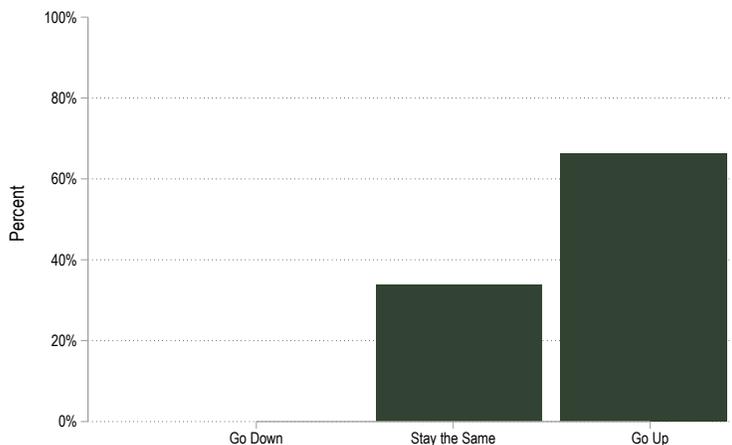
A. Effect of Richest-1% Appeal Rate



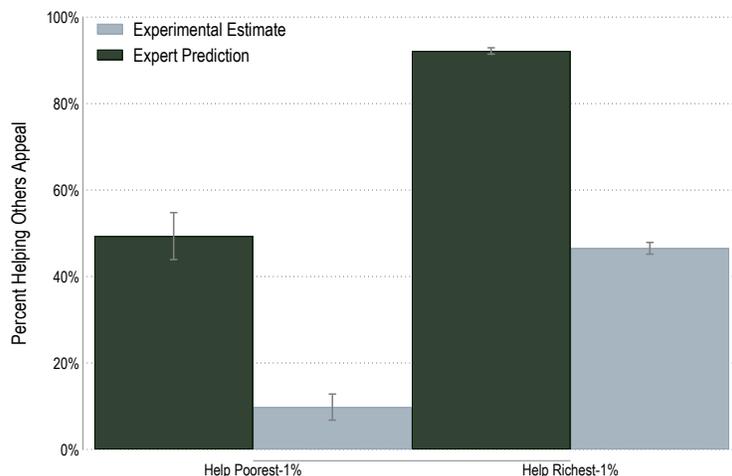
B. Effect of Comparable Appeal Rate



C. Effect of Expected Tax Savings



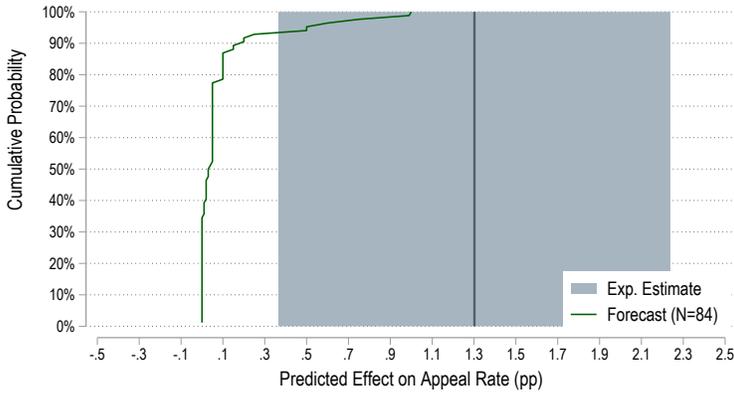
D. Willingness to Help Others to Appeal



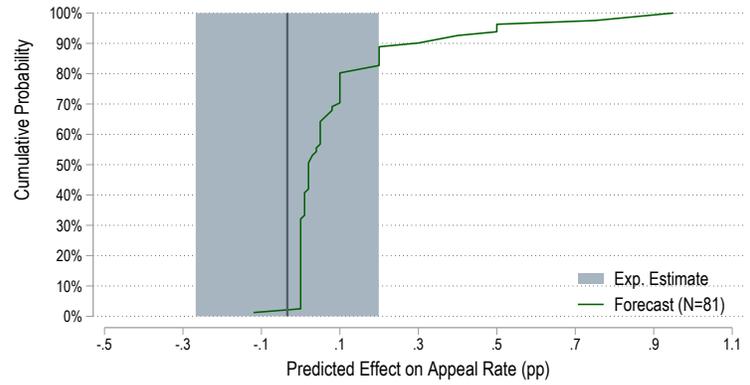
Notes: Panel A displays the results to the following question: “Suppose that at the beginning of the survey, a respondent expected that, among the richest households in the county, 50% of them will file a tax appeal in 2022. Due to the information shock, the respondent now believes that, among the richest households in the county, 60% of them will protest that is, the belief increased by 10 pp. As a result of this belief update, would you expect the respondent’s probability of filing a protest to go up, stay the same or go down?” Panel B displays responses to the question: “Suppose that at the beginning of the survey, a respondent expected that, among similar households in the county, 20% of them will file a tax appeal in 2022. Due to the information shock, the respondent now believes that, among similar households in the county, 30% of them will protest that is, the belief increased by 10 pp. As a result of this belief update, would you expect the respondent’s probability of filing a protest to go up, stay the same or go down?”. Panel C displays responses to the question: “Suppose that at the beginning of the survey, a respondent expected to save \$800 in 2022 property taxes by filing a tax appeal. Due to the information shock, the respondent now believes that he or she can save \$900 that is, the respondent expects to save an additional \$100. As a result of this belief update, would you expect the respondent’s probability of filing a protest to go up, stay the same or go down?”. Panel D displays the portion of the sample that wanted to help other taxpayers protest along with responses to the questions: “What share of respondents do you think that wanted us to help one of the richest households (top-1%) (bottom-1%) to file a protest?”

Figure B.2: Comparison between Quantitative Expert Forecasts and Experimental Estimates

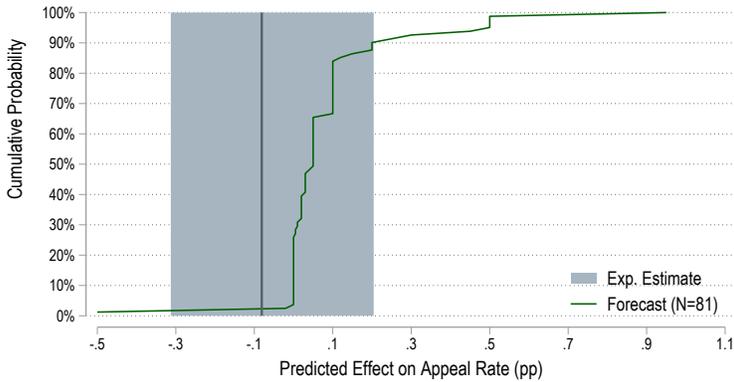
A. Effect of Expected Savings



B. Effect of Richest-1% Appeal Rate



C. Effect of Comparable Appeal Rate



Notes: This figure shows the distribution of expert predictions about the effects of a 1 pp increase in beliefs on the probability that a homeowner files a protest directly. To make the elicitation easier, in the prediction survey, for the predictions reported in Panels B and C, we asked subjects to predict the effects of a 10 pp increase in beliefs. For this figure, we divide those two predictions by 10 and we obtained the effect per 1 pp so these coefficients can be compared directly to the 2SLS estimates. The vertical red solid line corresponds to the experimental estimate based on the 2SLS specification. The shaded area (in pink) corresponds to the 90% confidence interval. Panel A displays the information for expected savings. Panel B displays the information for richest-1% appeal rates. Panel C displays the information for peer appeal rates.

# C Sample Envelope



utdallas.edu

**THE UNIVERSITY OF TEXAS AT DALLAS**

**Professor Alejandro Zentner**

800 W. Campbell Road  
Richardson, TX 75080-3021

NON PROFIT  
US POSTAGE  
PAID  
DALLAS, TX  
PERMIT #2650

43137

**JOAN ROBINSON**  
5329 JORDAN RIDGE DR  
DALLAS, TX 75236-1895



## D Sample of Full Letter



April 20<sup>th</sup>, 2022

Dear Joan Robinson,

We are researchers at The University of Texas at Dallas and we are reaching out to you as part of a research study about property taxes. Find below the estimated 2022 taxes for your home at 1504 Tuley St (Cedar Hill, TX) in Dallas County:

	<b>YOUR HOME</b>
<i>Proposed Value</i>	\$248,040
<i>Estimated Tax Amount</i>	\$6,330

*Source: Data provided by Dallas Central Appraisal District (CAD). Proposed Value is Dallas CAD's estimate of your home's market value as of January 1st, 2022. Estimated Tax Amount is our estimate of taxes due this year using the latest tax rates available (some exemptions might not be included).*

You can lower your tax amount by protesting the proposed value of your property. **If you would like to help us with our study, we kindly ask you to fill out a short survey:**

Visit <https://www.utdallas.edu/taxsurvey/> and enter validation code **930661**

Please respond to the survey as soon as possible, regardless of whether you plan to file a protest or not.

It takes only a few minutes to respond to the survey, and your responses will be confidential. At the end of our survey, we provide step-by-step instructions on how to file a protest online or by mail, if you wish to do so.

The deadline to file a protest is May 16th, 2022. With our instructions, filing a protest is really simple. You do not need an agent. You do not need to attend a hearing if you accept an online settlement offered by the county. If the county schedules a hearing and you do not attend it, the protest will simply be dismissed with no penalty.

---

800 W Campbell Rd. Office 3206  
Richardson, TX 75080

Please  
recycle 

Your household was randomly chosen to receive this letter. If you have any questions about the study, you can find contact information on the study's website provided at the end of the survey.

To access the survey, you can also use the following QR code:



Thank you for your attention!

*Alejandro Zentner*

Associate Professor  
The University of Texas at Dallas  
<https://www.utdallas.edu/taxproject/>

43137  
JOAN ROBINSON  
5329 JORDAN RIDGE DR  
DALLAS, TX 75236-1895  
|||||

# E Project's Website

The University of Texas at Dallas GALAXY ELEARNING DIRECTORY MAPS

 Tax Project

## Tax Project

Tax Project Home

Welcome to the Tax Project's homepage!

If you received our letter and would like to help us, we kindly ask you to complete our brief survey. **At the end of the survey, we will provide detailed step-by-step instructions on how you can file a protest online or by mail directly:**

[Complete a Brief Survey](#)

This study is being led by Professor Alejandro Zentner. If you have any questions or concerns about the survey, please contact the research team at [azentner@utdallas.edu](mailto:azentner@utdallas.edu). If you have questions about your rights as a research subject, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the University of Texas at Dallas Office of Research Integrity and Outreach at (972) 883-4579. Thank you for your attention,

Alejandro Zentner  
Associate Professor  
Naveen Jindal School of Management  
The University of Texas at Dallas  
Email: [azentner@utdallas.edu](mailto:azentner@utdallas.edu)  
Office: [JSOM 3.206](#)

## F Questionnaire: Field Experiment

Welcome to our survey on views about property taxes. Please read the consent form below and click "I Agree" when you are ready to start the survey.

**At the end of the survey, we will provide detailed step-by-step instructions on how you can file a protest online or by mail directly. These instructions make filing a protest really simple. You will not need an agent. You will not need to attend a hearing if you accept an online settlement offered by the county. If the county schedules a hearing and you do not attend it, the protest will simply be dismissed with no penalty.**

The study is being conducted by a team of researchers led by Professor Alejandro Zentner of The University of Texas at Dallas, and it has been designated by The University of Texas at Dallas Office of Research Integrity and Outreach as exempt from review by an Institutional Review Board. No deception is involved, and the study involves no more than minimal risk to participants (i.e., the level of risk encountered in daily life). Participation in the study typically takes about 10 minutes and is strictly confidential. Participants begin by entering the validation code included in the letter received by mail and then answer questions related to property taxes and demographics. All responses are treated as confidential. Data will be pooled and published in aggregated form only. Participants should be aware; however, that although the survey is being run from a "secure" https server of the kind typically used to handle credit card transactions, there is a small possibility that responses could be viewed by unauthorized third parties (e.g., computer hackers). Many individuals find participation in this study enjoyable, and no adverse reactions have been reported thus far. Participation is voluntary, refusal to take part in the study involves no penalty or loss of benefits to which participants are otherwise entitled, and participants may withdraw from the study at any time without penalty or loss of benefits to which they are otherwise entitled. By filling the survey, you may earn up to \$30 in the survey. Our best guess is that the odds of winning up to \$30 are 1 in 100. If participants have further questions about this study, they may contact the Principal Investigator, Alejandro Zentner (azentner@utdallas.edu). Participants who want more information about their rights as a participant or who want to report a research related concern may contact The University of Texas at Dallas Office of Research Integrity and Outreach at (972) 883-4579. If you are 18 years of age or older, understand the statements above, and freely consent to participate in the study, click on the "I Agree" button to begin the survey.

I agree, I would like to take part in this study and confirm that I am 18 years of age or older, I understand the statements above, and freely consent to participate in the study.

Please log in.

Validation Code

We want to ask you some questions about a property you own in Dallas County: 941 Trinity Dr (Lancaster, TX). In 2022, the Dallas Central Appraisal District (DCAD) assessed this property at \$329,880, with estimated property taxes of \$7,797.

Have you already filed a property tax protest in 2022?

- Yes
- No

Consider the richest 1% of households in Dallas County:  
households with homes assessed at \$1.9 million or more in  
**2021.**



What percent of these households do you think filed a  
property tax protest last year (in 2021)?

0 10 20 30 40 50 60 70 80 90 100

Now, consider households from Dallas County that are similar to your household: households with homes assessed at \$250,000 – \$299,999 in **2021**. In comparison, your home was assessed at \$282,530 in 2021.

What percent of these households do you think filed a property tax protest last year (in **2021**)?

0      10      20      30      40      50      60      70      80      90      100

Consider households from Dallas County that are similar to your household (homes assessed at \$250,000 - \$299,999 in 2021) **and filed a tax protest.**

Last year (in 2021), before they filed a tax protest, these households were expected to pay, on average, \$5,271 in property taxes.

How much do you think these households saved in 2021 property taxes, on average, due to their tax protests?

\$

Next, a group of survey respondents will be randomly chosen to receive some information related to the previous questions.

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

You have been randomly selected to receive the following information:

**Among the richest 1% of households in Dallas County (homes assessed at \$1.9 million or more in 2021), 49% filed a tax protest in 2021.**

- **Among households from Dallas County that are similar to your household (homes assessed at \$250,000 – \$299,999 in 2021), 11% filed a tax protest in 2021.**
- **Among households from Dallas County that are similar to your household and filed a tax protest in 2021, they saved an average of \$377 in 2021 property taxes.**

Please take a moment to review this information carefully, because you will not be able to return to this screen.

When ready, proceed to the next screen to continue with the survey.

Previously, we asked a few questions about property taxes during the last year (2021 taxes). **Now, we want to ask you the same questions, but about this year (2022).**



Consider the richest 1% of households in Dallas County: households with homes assessed at \$1.9 million or more in **2021**.

What percent of these households do you think will file a property tax protest this year (in 2022)?

0      10      20      30      40      50      60      70      80      90      100

Now, consider households from Dallas County that are similar to your household: households with homes assessed at \$250,000 – \$299,999 in **2021**.

What percent of these households do you think will file a property tax protest this year (in 2022)?

0      10      20      30      40      50      60      70      80      90      100

In 2022, if you do not file a tax protest, we estimate that you will have to pay \$7,797 in property taxes.

If you file a tax protest in 2022, how much do you expect to save in 2022 property taxes?

\$

You have time until May 16th, 2022 to protest Dallas CAD's proposed value of your property. How likely are you to protest this year?

- Very likely
- Likely
- Unlikely
- Very unlikely

If you can, please explain why you will (or will not) protest in 2022:

How justifiable do you believe it is to lawfully reduce your tax bill if you have a chance?

- Always justified
- Sometimes justified
- Never justified

Homeowners can file a protest on their own, but without our instructions it can be difficult. We can send tailored information to households for free, so that they can effortlessly appeal if they want.

Next, we will present you with **up to 10** scenarios. In each scenario, you will be given the choice of either receiving extra money as part of your reward for answering the survey OR having us help a homeowner reduce their tax bill.

We will randomly choose **1 out of 100** respondents. If you are one of these selected respondents, we will randomly select one of your choices to be implemented. As a result, it is in your best interest to respond honestly to these scenarios.

These are real scenarios: there is a chance that you are selected, and one of your decisions will be implemented, so please answer carefully.

We can reach out to a property owner in Dallas County, whose home was assessed at \$75,000 or less in 2021 (this is the poorest 1% of homes).



Would you like us to help the property owner reduce their tax bill by protesting their property value assessment?

- Yes
- No



Which of the following do you prefer?

- We help one property owner whose house was assessed at \$75,000 or less reduce their taxes by protesting their property value assessment.
- You receive a \$15 bonus.



Which of the following do you prefer?

- We help one property owner whose house was assessed at \$75,000 or less reduce their taxes by protesting their property value assessment.
- You receive a \$24 bonus.



Which of the following do you prefer?

- We help one property owner whose house was assessed at \$75,000 or less reduce their taxes by protesting their property value assessment.
- You receive a \$18 bonus.

We can reach out to a property owner in Dallas County, whose home was assessed at \$1.9 million or more in 2021 (this is the richest 1% of homes).



Would you like us to help the property owner reduce their tax bill by protesting their property value assessment?

- Yes
- No



Which of the following do you prefer?

- You receive a \$15 bonus AND we help one property owner whose house was assessed at \$1.9 million or more reduce their taxes by appealing their property value assessment.
- You receive no bonus.



Which of the following do you prefer?

- You receive a \$9 bonus AND we help one property owner whose house was assessed at \$1.9 million or more reduce their taxes by appealing their property value assessment.
- You receive no bonus.



Which of the following do you prefer?

- You receive a \$6 bonus AND we help one property owner whose house was assessed at \$1.9 million or more reduce their taxes by appealing their property value assessment.
- You receive no bonus.



Which of the following do you prefer?

- You receive a \$3 bonus AND we help one property owner whose house was assessed at \$1.9 million or more reduce their taxes by appealing their property value assessment.
- You receive no bonus.

We are almost done. We would like to ask you a few more questions of the survey, we will provide the detailed step-by-step instructions on how you can file a protest

Please indicate your gender:

- Male
- Female
- Other

How old are you (in years)?

*Which of the following best describes your race/ethnicity?*

*Please select all that apply*

- American Indian or Alaska Native
- Asian / Pacific Islander
- Black or African American
- Hispanic or Latino
- White
- Other (Please specify)

What is the highest level of education you have completed?

- Less than high school degree
- High school degree
- College degree
- Graduate degree

You said that 17% of the richest households (homes worth over \$1.9 million) file their tax protest, while 19% of households like yours (homes worth \$250,000 - \$299,999) file a protest. Do you think this is fair or unfair?

0 - Very unfair	1	2	3	4	5 - Neither fair nor unfair	6	7	8	9	10 - Very fair
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

Next, we would like to better understand the views of Dallas County residents about their property taxes.

Do you agree or disagree with the following statement?

*The local government services that I am provided (e.g., schools, roads, hospitals) justify the total amount I pay in property taxes.*

0 - Strongly disagree	1	2	3	4	5 - Neither agree or disagree	6	7	8	9	10 - Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you think that the property taxes on the **poorest 1%** of households should go down, stay the same or go up?

- Should go down
- Stay the same
- Should go up

Do you think that the property taxes on the **richest 1%** of households should go down, stay the same or go up?

- Should go down
- Stay the same
- Should go up

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

- Republican
- Democrat
- Independent

Recent research on decision making shows that choices are affected by the context in which they are made. Differences in how people feel, in their previous knowledge, experience, and in their environment can influence the choices they make. To help us understand how people make decisions, we are interested in information about you. Specifically, whether you actually take the time to read the instructions. If you don't, some results may fail to tell us very much about decision making in the real world. To help us confirm that you have read these instructions, please ignore the question about how you are feeling. Instead, only check the "none of the above" option. Thank you very much.

- |                                     |                                       |  |
|-------------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Interested | <input type="checkbox"/> Hostile      | <input type="checkbox"/> Nervous           |
| <input type="checkbox"/> Distressed | <input type="checkbox"/> Enthusiastic | <input type="checkbox"/> Determined        |
| <input type="checkbox"/> Excited    | <input type="checkbox"/> Proud        | <input type="checkbox"/> Attentive         |
| <input type="checkbox"/> Upset      | <input type="checkbox"/> Irritable    | <input type="checkbox"/> Jittery           |
| <input type="checkbox"/> Strong     | <input type="checkbox"/> Alert        | <input type="checkbox"/> Active            |
| <input type="checkbox"/> Scared     | <input type="checkbox"/> Inspired     | <input type="checkbox"/> None of the above |

What of the following options do you agree with the most?

- I understood all of the questions in the survey.
- I understood almost all of the questions in the survey.
- I understood most of the questions in the survey.
- I understood a few questions in the survey.

You have reached the end of the survey. Thanks for your participation!

To file a protest in Dallas County, you can fill out a short form online or mail it in. You do not need an agent to protest. You do not need to attend a hearing if you accept an online settlement offered by the county. If the county schedules a hearing and you do not attend it, the protest will simply be dismissed with no penalty.

You can find **step-by-step instructions for filing a protest** at the following website:

<https://taxhelp.utdallas.edu/>

Please be sure to print or save this URL (https://taxhelp.utdallas.edu/), because you may not be able to return to this page.

## G Questionnaire: Attitudes Survey



Welcome to our public opinion survey. This survey is intended for homeowners only.

This survey takes approximately 5 minutes, and we anticipate no risks or discomfort from your participation.

Please click "I Agree" when you're ready to begin the survey.

I Agree

Click this to ensure you are not a robot

 I'm not a robot reCAPTCHA  
Privacy - Terms



What is your Prolific ID?

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



Taxes are essential for funding public services, yet many individuals and businesses actively seek ways to minimize their tax bills. In this survey, we'd like to understand your opinions on five different forms of tax compliance.

We will ask you questions about how justifiable different tax behaviors are. You'll be asked to consider this both in general and in relation to two specific groups.

First, we'll ask about the poorest 1% of households—families living in the least expensive homes, like those shown below:



Then, we'll ask about the richest 1% of households—families living in the most expensive homes, like those shown below:





## Property Tax Assessment Appeals

You can lower your property taxes by filing a tax appeal. For example, if the county says your home is worth \$400,000, you can file an appeal to argue that it is worth \$375,000. If you win the appeal—like many homeowners do—your property taxes will go down because they'll now be based on the lower \$375,000 assessment. Some homeowners go through this process themselves, while others hire professionals to handle it.

How acceptable do you believe it is to use **property tax appeals** to lower your taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **poorest 1%** of households to use **property tax appeals** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **richest 1%** of households to use **property tax appeals** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable



## Buy, Borrow, Die

Wealthy individuals avoid taxes by borrowing against their investments instead of selling them. They take out loans using stocks or real estate as collateral, allowing them to access money without triggering capital gains taxes. When they die, their heirs inherit the assets at a new tax value, erasing the unpaid capital gains taxes. This strategy lets individuals legally reduce their tax burden by replacing taxable income with tax-free loan money. Estate planning and loan costs affect its success.

How acceptable do you believe it is to use the **"buy, borrow, die" strategy** to lower your taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **poorest 1%** of households to use **the "buy, borrow, die" strategy** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **richest 1%** of households to use **the "buy, borrow, die" strategy** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable



## Duty Free Stores

Travelers lower their tax costs by shopping at duty-free stores in airports, cruise ports, and border locations. These stores sell alcohol, perfume, and luxury goods without import taxes or sales tax. Since the goods are meant for international travelers, they do not face standard retail taxes. This strategy lets individuals legally reduce their tax burden by buying products in tax-exempt zones. The amount they save depends on customs limits and enforcement.

How acceptable do you believe it is to shop at **duty free stores** to lower your taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **poorest 1%** of households to shop at **duty free stores** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **richest 1%** of households to shop at **duty free stores** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable



## Under Reporting Income

A person or business can fail to report all of their income to tax authorities. This can include receiving cash payments and not declaring them, underreporting sales, or misclassifying income. By doing this, they avoid paying taxes that would otherwise be due.

How acceptable do you believe it is to **underreport income** to lower your taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **poorest 1%** of households to **underreport income** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **richest 1%** of households to **underreport income** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable



## Tax Avoidance through Substitution

Consumers save money by choosing lower-taxed products instead of higher-taxed ones. For example, a smoker might buy rolling tobacco instead of pre-packaged cigarettes because it's taxed less. Others switch to vaping or e-cigarettes, which some governments tax less. This strategy lets individuals legally reduce their tax burden by selecting products with lower tax rates. Local tax laws, availability, and government regulations determine how much they save.

How acceptable do you believe it is to use **substitution** to lower your taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **poorest 1%** of households to use **substitution** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable

How acceptable do you believe it is for the **richest 1%** of households to use **substitution** to lower their taxes?

- Completely unacceptable
- Mostly unacceptable
- Mostly acceptable
- Completely acceptable



Before taking this survey, were you aware of any of these tax reduction strategies?

Please select all that apply.

- Property tax appeals
- Tax Deferral Through Retirement Accounts
- The "buy, borrow, die" strategy
- Harvesting Tax Losses
- Real Estate Depreciation
- Carried Interest
- Corporate Profit Shifting
- Tax Avoidance Through Substitution
- Shopping at duty free stores
- Under reporting income
- Paying Workers Under the Table
- Falsifying Deductions or Expenses



Have you ever used any of these strategies to lower your taxes?

Please select all that apply.

- Property tax appeals
- Tax Deferral Through Retirement Accounts
- The "buy, borrow, die" strategy
- Harvesting Tax Losses
- Real Estate Depreciation
- Carried Interest
- Corporate Profit Shifting
- Tax Avoidance Through Substitution
- Shopping at duty free stores
- Under reporting income
- Paying Workers Under the Table
- Falsifying Deductions or Expenses



What is the state and county of your primary residence (the place where you usually live)?

State

County

How old are you? (in years)

Which of the following best describes your ethnicity?

- White
- Black or African American
- Asian or Native Hawaiian and other Pacific Islander
- American Indian or Alaska Native
- Hispanic or Latino origin
- Other (Please specify)

Please indicate your gender:

- Male
- Female
- Other

What was your income in 2024, before taxes?

- I did not earn income in 2024
- \$1 to \$19,999
- \$20,000 to \$39,999
- \$40,000 to \$59,000
- \$60,000 to \$79,999
- \$80,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more



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

- Democrat
- Republican
- Independent



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

- Democrat
- Republican
- I would rather not say



Recent research on decision making shows that choices are affected by the context in which they are made. Differences in how people feel, in their previous knowledge, experience, and in their environment can influence the choices they make. To help us understand how people make decisions, we are interested in information about you. Specifically, whether you actually take the time to read the instructions. If you don't, some results may fail to tell us very much about decision making in the real world. To help us confirm that you have read these instructions, please ignore the question about how you are feeling. Instead, only check the "none of the above" option. Thank you very much.

- |                                     |                                       |  |
|-------------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Interested | <input type="checkbox"/> Hostile      | <input type="checkbox"/> Nervous           |
| <input type="checkbox"/> Distressed | <input type="checkbox"/> Enthusiastic | <input type="checkbox"/> Determined        |
| <input type="checkbox"/> Excited    | <input type="checkbox"/> Proud        | <input type="checkbox"/> Attentive         |
| <input type="checkbox"/> Upset      | <input type="checkbox"/> Irritable    | <input type="checkbox"/> Jittery           |
| <input type="checkbox"/> Strong     | <input type="checkbox"/> Alert        | <input type="checkbox"/> Active            |
| <input type="checkbox"/> Scared     | <input type="checkbox"/> Inspired     | <input type="checkbox"/> None of the above |

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

- Easy to understand
- Neither easy nor difficult
- Difficult to understand



Feel free to share any comments with us below. For example, let us know if there is a question you did not understand.

# H Questionnaire: Forecast Survey



Welcome to our prediction survey! We invite you to forecast the results of an experiment about property taxes. Please read the consent form below and click "I Agree" when you are ready to start the survey.

This survey involves no more than minimal risk to participants (i.e., the level of risk encountered in daily life). Participation typically takes between 5 and 10 minutes and is strictly confidential. Many individuals find participation in this survey enjoyable, and no adverse reactions have been reported thus far. Participation is voluntary, and participants may withdraw from the survey at any time.

Yes, I would like to take the survey





Qualtrics

**Introduction:**

We study a sample of homeowners living in Dallas County (Texas) who have the opportunity to file a tax protest (a.k.a. tax appeal) of their property taxes, which can (legally) reduce the amount they have to pay in property taxes. We conducted a field experiment to explore some potential reasons why homeowners may choose to protest their taxes or not.





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**Subject Pool and Timing:**

We invited a sample of homeowners from Dallas County via mail to take part in an online survey. Around 3,500 households completed the survey, which constitutes our subject pool. We conducted the survey shortly before the deadline to file a tax protest (May 16th, 2022).

**Property Taxes:**

Property taxes are used to fund various services such as schools, parks, and roads. The average subject had a home worth around \$450,000 and was estimated to pay \$10,000 in 2022 property taxes.



Tax Protests: Households have the opportunity to file a protest, by mail or online, free of charge. In their protest form households typically argue that the market value estimated by the Dallas Central Appraisal District was too high. Hereon after, we focus on whether households file a tax protest directly (i.e., without a tax agent representing them). Among households in the control group, around 45% filed a protest in 2022. Of those, 75% were successful (i.e., resulted in at least some reduction in their assessed value).

Definitions: “Similar households” are other households in the county with an assessed home value close to the corresponding assessed home value of the respondent. “Richest households” are those in the top 1% of the distribution of assessed home values in the county. These are pictures of some homes belonging to this group, which we provided to the respondents as reference:





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Experimental Design:

Our survey revolves around the following three beliefs:

(1) The dollar amount that the respondent expects to save in his or her 2022 property taxes if he or she filed a tax appeal this year.

(2) The share of similar households that the respondent expects to file a tax appeal this year.

(3) The share of the richest households that the respondent expects to file a tax appeal this year.

After eliciting prior beliefs, we conduct an information-provision experiment: a random sample of the subjects receive accurate information related to one (or more) of the variables listed above. This information experiment creates exogenous variation in the respondents' posterior beliefs. We use that variation to measure the causal effect of the respondents' beliefs on their subsequent behavior.





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Outcome of interest:

We are interested to hear your predictions about the effects of the intervention on the main outcome of interest: whether the household filed a tax protest in 2022 (i.e., a few weeks after they completed the survey). We observe whether the subject filed a tax protest using the county's administrative records. For reference, among households in the control group (i.e., survey respondents who did not receive any information), 45% filed a tax protest in 2022.

We want to elicit your predictions about the effects of each of the three beliefs listed before. Even if you do not feel confident about it, please provide your best guess. We will ask you whether you feel confident in your guess, and also give you the opportunity to explain your reasoning (if you want).





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Suppose that at the beginning of the survey, a respondent expected to save \$800 in 2022 property taxes by filing a tax appeal.

Due to the information shock, the respondent now believes that he or she can save \$900 – that is, the respondent expects to save an additional \$100.

As a result of this update in beliefs, would you expect the respondent's probability of filing a protest to go up, stay the same or go down?

Go up

Stay the same

Go down





By how much would you expect the respondent's probability of filing a protest to go down (in percentage points)?  
Please enter a number between 0 and 100.

 p.p.

---

Reference: among households in the control group, 45% filed a tax protest in 2022

---

How confident are you in your prediction?

Not confident at all

Slightly confident

Somewhat confident

Very confident

Extremely confident

---

(Optional) Why do you expect the respondent's probability of filing a protest to go down?





Now, we want to elicit your predictions for the second belief.

Suppose that at the beginning of the survey, a respondent expected that, among similar households in the county, 20% of them will file a tax appeal in 2022. Due to the information shock, the respondent now believes that, among similar households in the county, 30% of them will protest – that is, the belief increased by 10 percentage points.

As a result of this update in beliefs, would you expect the respondent's probability of filing a protest to go up, stay the same or go down?

Go up

Stay the same

Go down





By how much would you expect the respondent's probability of filing a protest to go up (in percentage points)?  
Please enter a number between 0 and 100.

 p.p.

---

Reference: among households in the control group, 45% filed a tax protest in 2022

---

How confident are you in your prediction?

Not confident at all

Slightly confident

Somewhat confident

Very confident

Extremely confident

---

(Optional) Why do you expect the respondent's probability of filing a protest to go up?



Now, we want to elicit your predictions for the third belief.

Suppose that at the beginning of the survey, a respondent expected that, among the richest households in the county, 50% of them will file a tax appeal in 2022. Due to the information shock, the respondent now believes that, among the richest households in the county, 60% of them will protest – that is, the belief increased by 10 percentage points.

As a result of this update in beliefs, would you expect the respondent's probability of filing a protest to go up, stay the same or go down?

Go up

Stay the same

Go down





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By how much would you expect the respondent's probability of filing a protest to go down (in percentage points)?  
Please enter a number between 0 and 100.

 p.p.

---

Reference: among households in the control group, 45% filed a tax protest in 2022

---

How confident are you in your prediction?

Not confident at all

Slightly confident

Somewhat confident

Very confident

Extremely confident

---

(Optional) Why do you expect the respondent's probability of filing a protest to go down?

As the final part of our field experiment, we offered to help another household (different from the respondent's household) to file a protest.

Some homeowners can find it difficult to file a protest on their own. We explained to respondents that we (as researchers) could send tailored information to households for free, so that they can effortlessly appeal if they want.

First, we offered to help one household from the richest (top-1%) households. For reference, these are pictures of some of those homes, as shown to the respondents:



What share of respondents do you think wanted us to help one of the richest households (top-1%) to file a protest? (Please enter a number between 0 and 100)

 %

Next, we offered to help one household from the poorest (bottom-1%) households. For reference, these are pictures of some of those homes, as shown to the respondents:



What share of respondents do you think wanted us to help one of the poorest households (bottom-1%) to file a protest? (Please enter a number between 0 and 100)

 %

How confident are you in these last predictions?

Not confident at all

Slightly confident

Somewhat confident

Very confident

Extremely confident

This is the last section of the survey. We would appreciate if you could share some information about yourself. Which of the following best describes your current position?

Professor

Assistant Professor

Post-Doc

Researcher

PhD Student

Master Student

Other

Please select your discipline

Economic

Business (management, accounting, finance, etc.)

Political Science

Psychology

Sociology

Other

Have you ever conducted research on preferences for redistribution?

Yes

No

---

Have you ever conducted research on taxation?

Yes

No





Qualtrics

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

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

