Online Appendix (For Online Publication Only)

Nathan, Perez-Truglia and Zentner, "My Taxes are Too Darn High"

June 26, 2023

A Further Details and Results

A.1 More Details about the Institutional Context and Data

A.1.1 Property Taxation and the Protesting Process

In this section we provide more details about the institutional context.

Section 25 of the Texas Property Code stipulates how property taxes are assessed and collected. Property taxes are computed according to several steps. First, the county is responsible for estimating the "total market value" (i.e., the value of the land plus any improvements) for each of its residential and commercial properties. Note that we refer to this total market value as "proposed value" throughout this paper. The Texas Property Code mandates each proposed value must (a) accurately reflect the market value of the property as of January 1st and (b) be "fair" insofar as being consistent with the estimated values of comparable properties. A household may protest the proposed value it receives on the grounds that (a) and/or (b) are not satisfied, among other specific reasons such as administrative errors.

Second, the county calculates each household's "appraised value," defined as the lower of the total market value or the homestead cap (a homestead cap can only apply for properties with homestead status, see Section 3 for details) minus certain exemptions such as "agricultural use." Third, each household's "taxable value" is computed by jurisdiction as the household's appraised value less certain, additional exemption amounts (beyond those included in the calculation of appraised value) which are applied by jurisdiction. Households must submit the relevant paperwork to receive these additional exemptions, such as exemptions for homesteads, owner being over age 65, disabled or veteran status, low income areas, historic properties. In Texas, Independent School Districts are required (and other jurisdictions may elect) to "freeze" the property's taxable value for households who apply to "Over Age 65" or "Disabled" exemptions.

Finally, to calculate estimated taxes due for each jurisdiction, the county multiply the lower of (a) the household's current taxable value and (b) the household's frozen taxable value (if applicable) by the jurisdiction's tax rate. The DCAD typically sends its Notification of Appraised Value on April 15th (but in 2020 it was delayed until May 15th) with the total estimated taxes for the year, which equals the sum of the estimated taxes due across

all jurisdictions in which the home resides.[77] Estimated taxes in the DCAD notifications are calculated based on the prior year's jurisdictional tax rates (which are the latest available).[78] See the sample DCAD notification in Appendix E, which includes a breakdown of the estimated property taxes calculation on the second page. Finally, the Dallas County tax assessor sends the annual property tax bill based on the current year's jurisdictional tax rates in early October, with payment due by January 31st of the following year.

We classify a protest that was filed during the annual protest window as *Successful* if it resulted in a reduction in the DCAD's assessment of the household's market value from the proposed value (i.e., *Successful* = 100). That is, we compare the proposed value to the estimated value obtained during the formal hearing if the protest reached that stage; otherwise we compare it to the settlement value obtained during the informal stage. If a protest did not result in a reduction in the assessed value (including if it was withdrawn without reaching a settlement on a lower value), we classify it as unsuccessful (i.e., *Successful* = 0).

We estimate households' tax savings from protesting under two different scenarios. *Suggested Tax Savings* is the amount of taxes a given household would have saved if it had used the value of the comparable property found by our comparison algorithm - see Appendix A.4 - as the opinion of value on their protest form and was 100% successful (i.e., the owner and DCAD settle on a reduced value equal to the opinion of value). *Estimated Tax Savings* is an estimate of the actual tax amount a given subject household saved from protesting (this value is zero if the household did not protest). For both of these variables, we take into consideration the relevant tax ceilings and assume no difference in exemption amounts due to the lower certified value from a successful protest.[79] We express these tax savings variables as percentage reductions in the proposed tax amount.

When a homestead cap is binding (that is, when the proposed value is higher than the homestead cap), the tax savings from a marginal reduction in the market value of a household is zero. If the reduction due to protesting is insufficient to lower the market value from the proposed value to below the homestead cap threshold, then there will be no tax savings in the current year. The market value reductions suggested by the comparables algorithm and *Estimated Tax Savings* are discussed further in Appendix A.4.

[77] Note that the DCAD does not include the effect of "frozen" taxes in the estimated taxes due shown in their notification letter. For the sake of accuracy, we do utilize the "frozen" tax amounts to calculate the estimated taxes due shown in our letters.

[78] We obtained each jurisdiction's 2019 tax rate from the DCAD's website: `http://www.dallascad.org/TaxRates.aspx`.

[79] This approach may slightly overestimate tax savings if the household was subject to any "Optional Homestead" exemptions, which are applied as a percentage of the proposed value rather than a flat dollar amount.

A.1.2 Data Sources

In this section we present further details about the data sources used in the paper.

Our main data source is made publicly available and easily accessible by the DCAD. Under the Texas Public Information Act, all government information in Texas, with few exceptions, is available to the public.[80] As of August of 2020, the raw data that we used in the paper can be downloaded from the following links: `http://www.dallascad.org/DataProducts.aspx` and `http://www.dallascad.org/TaxRates.aspx`. Government information that is not publicly available on the Internet can be requested from any governmental body in Texas for a fee that covers the cost of producing copies of the records. We requested data from the DCAD on the "Opinion of Value" for all protests that were filed using the online system.

The protest dates shown in the DCAD data correspond to the dates when protests are recorded in the DCAD's system. These recorded dates are an approximation of the dates when protests are submitted. Protests submitted online are recorded on business days (e.g., protests submitted on weekends are recorded the following Monday). The system does not contain postmark dates of protests submitted by mail, which might create a small difference between the date when protests were submitted and when they were recorded in the system. For this reason, some protests that were received shortly after June 15th may still have been filed by the June 15th deadline. To be conservative, in all the analyses presented in the paper we include protests that were recorded as received by the DCAD on or before July 15th.

We collected some complementary data from RedFin to identify all houses sold in the county from October 1st, 2019 to May 9th, 2020, including information on the sales price, address, and property characteristics. We used this data to generate the information on comparable properties included in the letters we sent to subjects receiving the extra aid treatment. To further validate the matches made by the comparison algorithm, we scraped the so-called "RedFin estimates" for subject pool households in the field experiment. We found RedFin estimates for 95.8% of the households in the subject pool. For the remaining households, we scraped Zillow's estimates (known as "Zestimates"), locating estimates for an additional 2.6% of the subject pool. For the remaining 1.6%, we used a prediction model to impute estimated home values, employing household characteristics as predictors along with zip code fixed effects.

For some of the households in the sample, we obtained individual-level demographic data from a private vendor. The company used the names and addresses to merge the records at the individual-level. The private vendor was able to match the data to 73.2% of the homeowners in the sample.

[80] Source: `https://www.texasattorneygeneral.gov/open-government/members-public/overview-public-information-act`.

A.1.3 Validation of the Race Measures

In this section we study the relationship between the inferred races using the Ethnicolr algorithm and the data from survey respondents of the 2020 Decennial Census at the Census tract level.

Figure A.1 shows that the inferred race for the full sample of homeowners using the Ethnicolr algorithm shown on the vertical axis approximately matches the self reported races of respondents of the 2020 Decennial Census shown on the horizontal axis, especially for White, Hispanic, and Asian. We note that not all individuals own a home (for example, Hispanics tend to have lower home ownership rates than Whites[81]), and for this reason we would expect a positive correlation of these two variables but not a perfect match. The light dots on the figure represent the percentage of the race that was inferred (y-axis) versus surveyed (x-axis) for each census track. The dark dots on the figure represent the means of the light dots for each decile and the linear fit is computed with the dark dots.

We also acquired individual-level data from a private vendor, which includes one proxy for the race of the homeowners. Our inferred races are significantly correlated with that independent proxy: e.g., there is a 0.89 correlation between the Hispanic indicator variable in our data and the corresponding variable in the vendor's data.

A.1.4 Descriptive Statistics about the Samples

In this section we provide some basic descriptive statistics for the different samples used in the paper.

Table A.1 presents descriptive statistics for the key variables, and for each of the samples used in this paper. Columns (1)–(6) report pre-treatment characteristics using data from 2019. Column (1) corresponds to the main sample of single-family homes. First, we describe the filters used to arrive at this sample. We started with the full database of 736,900 real property (i.e., non-business personal property) accounts in Dallas County in 2020 provided by the DCAD and used various filters to arrive at the 423,607 households in the final sample. We excluded commercial real properties, non-single-family residential properties (e.g., condos, townhouses, mobile homes, apartments, P.O. boxes, vacant lots) which might likelier be rentals in our focal county, and properties with missing information such as the proposed value (in 2020 or 2019), taxable values, property address or owner's mailing address, or the number of bedrooms or bathrooms. We further excluded households with proposed values

[81] See `https://prosperitynow.org/sites/default/files/resource/2018-10/Racial_Wealth_Divide_in_Dallas.pdf`.

lower than $50,000 or greater than $7.5 million.[82] Column (1) shows that the average home in this sample had 3.24 bedrooms, was assessed at $306,000, paid $6,150 annually in property taxes – equivalent to a tax rate of 1.98% in this sample. Within this sample, 5.93% of households protested directly in 2019 and 7.96% through an agent, 74.24% had homestead status, 57.2% are likely Democrats and 42.7% are likely Republican. For this sample, we do not have information on age.

In Section 3.2, we split the main sample of single-family homes described above into subsamples by homestead status and restricted them to households within $15,000 of the potential homestead cap (defined as 110% of the 2019 appraised value). These two samples are described in columns (2) and (3) of Table A.1 (referred to here as the Homestead and No Homestead samples), respectively. Comparing columns (2) and (3) reveals that single-family homes with homestead have somewhat lower market values than single-family homes without homestead. This comparison also reveals that homes with homestead pay lower tax rates, as expected since homes with homestead status, in addition to the homestead cap, qualify for a flat tax exemption.

Column (4) of Table A.1 shows the average pre-treatment characteristics for the subject pool used in the field experiment. Comparing columns (1) and (4) reveals that the samples are similar but not identical in terms of observable characteristics. Properties included in the field experiment are slightly more expensive than those in the quasi-experiment. The differences between these two samples are explained by the filters listed in Appendix A.4. We have information on demographics and partisan identity for the sample used in the field experiment, and the last six rows of column (4) through (6) of Table A.1 present summary statistics using this information. For this sample we have information on age.

A.1.5 Descriptive Statistics about the Protest Rates

In this section we describe some additional statistics about the protest rates.

Table A.2 presents protest rates, success rates as a share of protests, and the average reduction in the market value from successful protests for the years 2015 through 2020 for the main sample of 423,607 single-family homes. Panel A on the top shows these statistics for direct protest and panel B on the bottom shows the statistics for protests filed through agents.

The rates in which households protested, and the success rates of those protests, were quite similar in 2020 relative to previous years. Market value reductions were similar for the years 2015–2020 for both direct protests and protests through agents.

[82] The average tax rate (2.01%) and tax amount ($5,916) figures shown in the letters are based on all single-family homes, without making these and other exclusions.

We can compare the DCAD's proposed value of each home in the field experiment with its RedFin estimate. We classify whether the proposed value is above or below Redfin's independent estimate for the same property. Then, we can measure the association between that variable and the probability of filing a protest. The results are presented in Figure A.2. This figure shows that while properties that are over-valued (relative to Redfin) are more likely to file a protest, protests are still prevalent among properties that are under-valued by this measure.

A.2 Expected Tax Savings: A Simple Model

In this appendix we introduce a simple model of the decision to protest. Let A be the proposed value of the household and T be the amount the household has to pay in property taxes. Under a simple proportional tax rate (τ), the tax burden without a homestead cap is the following:

$$T_{nocap} = \tau \cdot A \tag{A.1}$$

Let C denote the cost of protesting. Assume that households can protest ($P = 1$) or not ($P = 0$), and let $\Delta_A \geq 0$ be a random variable that corresponds to the reduction in A that would result from a protest. Then the expected net benefit from protesting is:

$$\mathbb{E}[U(P=1) - U(P=0)]_{nocap} = \tau \cdot \mathbb{P}(\Delta_A > 0) \cdot \mathbb{E}[\Delta_A | \Delta_A > 0] - C \tag{A.2}$$

and the household will protest if the above expected net benefit is positive and will not protest if it is non-positive. Now, let us introduce the homestead cap. Let the homestead cap threshold be $\bar{A}$. Taking this threshold into consideration, the tax burden can be computed as follows:

$$T_{cap} = \tau \cdot \min\{A, \bar{A}\} \tag{A.3}$$

If the cap is not binding ($A < \bar{A}$), then T_{cap} is identical to T_{nocap}, and thus the decision to protest is not affected by the homestead cap. The interesting case is when the cap is binding ($A > \bar{A}$). As a result of a binding cap, the expected net benefit from protesting is as follows:

$$\mathbb{E}[U(P=1) - U(P=0)]_{cap} = \tau \cdot \mathbb{P}(\Delta_A > A - \bar{A}) \cdot \mathbb{E}[\Delta_A - (A - \bar{A}) | \Delta_A > A - \bar{A}] - C, \tag{A.4}$$

This equation can be re-arranged as follows:

$$\begin{aligned} \mathbb{E}[U(P=1) - U(P=0)]_{cap} =& \tau \cdot \mathbb{P}(\Delta_A > 0) \cdot \mathbb{E}[\Delta_A | \Delta_A > 0] - C \\ & - \tau \cdot \mathbb{P}(0 < \Delta_A < A - \bar{A}) \cdot \mathbb{E}[\Delta_A | 0 < \Delta_A < A - \bar{A}] \end{aligned} \tag{A.5}$$

Note that first two terms in the RHS in equation (A.2) are identical to the first two terms on the RHS in equation (A.5). Thus, the last term in equation (A.5) is the difference in incentives to protest introduced by the cap. The cap reduces the expected benefits from protesting when it is binding. Note that the expected benefits are lower the larger the difference between the proposed value and the homestead threshold ($A - \bar{A}$). The intuition is straightforward: absent a cap, a reduction in the assessed value will result in a reduction in the tax bill. This simple model illustrates how a binding cap affects the marginal benefit from protesting abstracting from several considerations. For example, households have the opportunity to protest every year and the model abstract from dynamic considerations.

A.3 Expected Tax Savings: Additional Robustness Checks

A.3.1 Alternative Bandwidths

Table A.3 reproduce the results from columns (1) and (2) of Table 1 in the body of the paper for two alternative bandwidths. For reference, columns (1) and (2) of Table A.3 show the results from columns (1) and (2) in Table 1 in the body of the paper. Columns (3) and (4) use a bandwidth of $30,000 and columns (5) and (6) a bandwidth of $50,000. When we use less conservative bandwidths, the total number of observations increases from 96,274 in columns (1) and (2) to 179,453 in columns (3) and (4) of Table A.3 and further to 257,291 households in columns (5) and (6) of Table A.3.

Note that the results for wider bandwidths should not be identical in magnitude to the results in the body of the paper: if there are heterogeneous effects, then it would be natural for the estimates to be quantitatively different in different samples. However, we would expect the results to be qualitatively robust and remain on the same order of magnitude. Indeed, the results in this appendix are both qualitatively and quantitatively similar to the results in the body of the paper. Columns (1) and (2) suggest that each $100 reduction in the tax amount due to the homestead cap decreases the protest probability by 2.14 pp. In comparison, columns (3) and (4) of Table A.3 suggest that each $100 reduction in the tax amount due to the homestead cap decreases the protest probability by 2.11 pp and columns (5) and (6) of Table A.3 suggest that each $100 reduction in the tax amount due to the homestead cap decreases the protest probability by 2.26 pp.

A.3.2 Tax Amount versus Tax Rate

In this section we present additional robustness checks on the results on the expected tax savings of protesting using the tax rate, instead of the tax amount as used in the body of the paper. Figure 1 shows a sharp kink in the tax amount after hitting the homestead

cap threshold. Figure A.3 shows an analogous kink for the tax rate, demonstrating that households had to pay less in taxes than they would have needed to pay absent the homestead cap. Figure A.3.a indicates that being $10,000 above the homestead cap causes, on average, a reduction of 0.118 pp ($= 0.163 - 0.045$) in the tax rate. In turn, as a falsification test, Figure A.3.b shows there is no kink at the homestead cap threshold for households that do not have the homestead exemption.

A.3.3 Effects of the Homestead Cap using the Field Experiment Sample

Figure A.6 reproduces Figure 1 in the body of the paper but using the field experiment sample. This figure shows that the effects of expected tax savings are similar, although less precisely estimated, when restricting the sample to the same sample used in the field experiment.

A.3.4 Effects of the Homestead Cap for Hispanic and White Households

Figures A.4 and A.5 show the show effects of the homestead cap focusing on Hispanic and White Households, respectively.

A.3.5 Is there Bunching in the Proposed Value Around the Homestead Cap?

While county appraisal districts could potentially consider the homestead cap when setting the proposed value for each home, officers from some of the county appraisal districts in Texas that we met with indicated that this is not the case. Consistent with this view, Figure A.7 does not show evidence of bunching around the cap. The vertical axis in this figure shows the difference between the value proposed by the DCAD in 2020 and the amount of taxes paid in 2019 and the horizontal axis shows how far a home was from the homestead cap. The figure does not show that the DCAD endogenously sets proposed values immediately before reaching the value of zero on the horizontal axis.

A.4 Field Experiment: Additional Details about the Design and Implementation

In this section we provide additional information about the design and implementation of the field experiment.

We begin by describing the filters used to arrive at the subject pool. We started with the main sample of 423,607 residential single-family homes used for the analysis in Section 3.2

and described in Appendix A.1.4 and used various filters to arrive at 78,462 households in the final subject pool of the field experiment.

We excluded households lacking data on year built, households where the mailing company's National Change of Address Verification flagged the owners as having moved or the property address as invalid, and households where the Census geocoding did not yield an address match. We further excluded tax rates lower than 1 percent. We did not include non owner-occupied properties (i.e., where the owner's mailing address was not the same as the property address), as those owners may take much longer to receive the letter and/or are more likely to be investors. Properties with keywords in the owner field that suggested it was a business operating out of a residential property (e.g., "LLC," "corp," "realty"), was owned by a government body (e.g., "Texas," "city"), or that we could not address our letter to an owner's actual name (e.g., "estate," "community") were also excluded. We dropped households where the owner had already filed a 2020 protest before May 21st and households without a comparison home match, which is an important input for the extra aid letter.

We showed to all subject households in the field experiment their own proposed market value and estimated tax amount in a table on the first page of the letter we mailed. We cross-randomized whether, in addition, subjects were shown the "Average Dallas Home" column and/or the "Estimated Tax Rate" row in the table that we use for another treatment arm not discussed in this paper.

Next, we provide more details about the algorithm we used to find the values of comparable properties that we included in the letters.

Although we identified one comparable property for all households in the subject pool, we only displayed this information in the letter for the subjects randomly selected for the extra aid letter. The algorithm begins by matching each household in our subject pool sample with all houses listed on RedFin.com as sold between October 15th, 2019 and May 6th, 2020, that meet a list of criteria: comparable properties were required to be within 0.75 miles of the subject household, have the same number of bedrooms (or if the subject household has five or more bedrooms, then the comparison property must have five or greater as well), have at least the number of bathrooms of the household minus one (or both must have five or greater bathrooms), have a square footage between 95% and 120% of the subject household's square footage, and have an estimated sales price within 80% and 95% of DCAD's 2020 proposed value. Subject households were not permitted to be matched with themselves. Out of all matches per the above criteria for a given subject household, we kept the single closest match by distance.

We took random samples to manually inspect the quality of the comparable property, and we found that the vast majority of the cases seemed reasonable. For a more formal assessment

of the quality of the arguments provided in the letter, we present some descriptive statistics of the comparable properties identified by our algorithm.

Figure A.8 presents the distribution of the "suggested market value reduction" generated by the comparison algorithm for all subject households in the field experiment. *Suggested market value reduction* is calculated as the household's 2020 proposed market value minus the comparable home's 2020 proposed market value (i.e., the market value reduction the household would achieve if the household placed the value of the comparable home in the "Opinion of Value" line on the protest form and the DCAD settled for that value). Among other filters, the algorithm restricted matches to homes with proposed values in the range of 80% to 95% of the proposed value of the subject household. The mean *suggested market value reduction* was $37,973 (10.77%), while the median proposed discount was $26,020 (10.01%).

As an alternative validation method, we can compare different characteristics between the recipient's property and the comparison property that we identified. The results are presented in Figure A.9. Figure A.9.a compares the estimated home values according to a third party: we obtained estimates from RedFin (and when these were unavailable, Zillow estimates) of the subject households' and comparison homes' market values. RedFin and Zillow estimates are not perfect and certainly have measurement error, but on average they provide a reasonable proxy for home market values. Figure A.9.a shows the distribution of the percent-difference between the estimated values of the property and its comparison. The mean (median) difference is -1.66% (-2.17%), which indicates that our algorithm identified a reasonable (if anything, slightly conservative on average) comparison property. Figure A.9.b shows the distribution of the distance between the recipient's own property and the comparison property. On average, these pairs of properties are 0.38 miles from each other, sometimes next door to each other, and at most 0.75 miles from each other. Figure A.9.c shows the difference in square footage. Note that our algorithm selected comparison properties that are, if anything, slightly larger than the recipient's own property. That is, the comparison property is conservative in this dimension. Lastly, Figure A.9.d shows that most of the time the recipient's property has the exact same number of bathrooms as the comparison property, and the vast majority of the pairs are within half a bathroom of each other.

Next, we show that the treatments in the Field Experiment are well-balanced in terms of observable characteristics, demonstrating that the randomization was successful. Table A.4 breaks down the averages of the characteristics we used in the randomization by treatment group. Column (1) corresponds to the average characteristics for the whole subject pool (which by construction is equal to column (2) of Table A.1). Columns (2) through (4) present the pre-treatment mean characteristics for households that were randomly assigned to receive no letters, letters with the basic aid message, and letters with the extra aid message,

respectively. Column (5) reports p-values for the null hypothesis that the average of each characteristic is equal across these three treatment groups. The results show that, consistent with successful random assignment, the observable characteristics are balanced across these treatment groups.

A.5 Filing Frictions: Additional Robustness Checks

A.5.1 Timing of the Letter Delivery, Visits to the Website and Protests

In this section we present the timing of when subjects in the field experiment read the letters we mailed and when subjects protested.

Following the methodology from other studies (Perez-Truglia and Cruces, 2017; Perez-Truglia and Troiano, 2018; Bottan and Perez-Truglia, 2020), we used the distribution of dates when the surveys included in the letter were completed as a proxy for when the letters were actually read. This proxy is conservative because some households may have read the letter and waited a few days until responding to the survey. The results are presented in Figure A.10.a. The first survey response was received on May 21st. This date coincided with the best guess provided by the mailing company of when letters would begin to be received by households and the scan records from the Unites States Postal Service. This figure suggests that the majority of read-receipts happened in the first week after the start of the letter delivery. The remaining read-receipts took place gradually until the last responses were received on the deadline of the protest, on June 15th, 2020.

We can also use the number of visits to the study's website to infer when the letters were received and read (the letters we mailed included the URL to the study's website). We used Google Analytics to track visits in an anonymous manner. Figure A.10.b shows the number of visits by date. The evolution of the visits to the website tracks the survey responses very closely. Note that this is not because the visitors were looking for the link to the survey on the website: that link was already prominently displayed in the letter. The vast majority of the visitors went to the website to find the step-by-step instructions on how to protest. Visits to the study's website began on May 21st and increased progressively until the tax filing deadline.[83]

For reference, Figure A.10.c shows the timing of the protests by households in the control group (i.e., who were randomly selected not to receive a letter). As explained in Appendix A.1.2 above, there might be differences between the dates when protests are submitted and recorded in the DCAD's system, and in this paper we use recorded dates since only these

[83] We used Qualtrics for our survey. It is not possible to use Google Analytics to track visits to the survey link that was included on the study's website.

dates are available to us. Note that the vast majority of the direct protests happened at least a week after our letters were delivered. Note also that the increase in the share of survey responses over time (Figure A.10.a) seems to track the website visits and the direct protests (Figures A.10.b and A.10.c respectively). This probably means that while most subjects received our letters shortly after May 20th, many of them held on to the letter, and eventually used our website and responded to the survey weeks later.

To further investigate that conjecture, we included in the survey a question on when the recipient first saw our letter. The responses confirm the view that many subjects held on to the letters before filling out the survey. The results are presented in Table A.5. This table shows the responses to the question "When did you receive the letter that included the link to this survey?" We offered the following options: "Today", "Yesterday", "This week", and "More than a week ago". Column (1) corresponds to all respondents from the survey, while columns (2)–(3) break the survey sample down into households that responded during the first week (i.e., before May 27th) and households who responded after the first week (i.e., after May 27th), respectively. The results from column (2) indicate that respondents who filled out the survey during the first week were the ones who received the letters during that same week. In contrast, column (3) shows that the vast majority of the subjects who responded after the first week had received our letter more than a week prior.

A.5.2 Spillover Effects

In this section, we examine spillover effects of our letters in the field experiment onto neighboring homes' decisions to protest. In the case that households treated with our basic aid or extra aid letters shared the information from the letters with their untreated neighbors, contributing to their neighbors' decisions to protest, then the treatment effects discussed in Section 4.7 would likely be underestimated because non-treated households might also changed their behavior due to our letters. Thus, we examined whether spillovers were likely to have occurred, but did not find any evidence in support of it.

Firstly, between the day the letters were mailed and until the day we stopped tracking protests (July 15th), we performed several online searches on Google and social media sites such as Facebook and NextDoor and did not find any indication of contamination of the field experiment due to public reports on this experiment while it was being conducted. Secondly, the website views were not abnormally disproportionate to the number of letters we mailed (see Section A.5.1).

To provide more direct evidence that spillovers are not introducing attenuation bias in our estimates, below we measure the spillovers directly through regression analysis. The evidence shows that, consistent with the anecdotal evidence discussed above, there were no

significant spillovers.

Let Y_i be the outcome of interest, such as an indicator variable that takes the value 100 if household i protested directly in 2020. For each single-family residential household in Dallas County, we identified five (or as many as possible up to five) of its closest neighbors within 0.1 kilometers (approximately half a block), which we refer to as household i's nearest neighbors. Let Own Letter$_i$ be an indicator that takes the value 1 if household i was mailed either the basic or the extra aid letter and 0 otherwise. Let Peer Letter$_i$ be an indicator variable that takes the value 1 if at least one of household i's five closest nearest neighbors received a letter and 0 otherwise. The regression of interest is the following:

$$Y_i = \lambda_0 + \lambda_1 \cdot \text{Own Letter}_i + \lambda_2 \cdot \text{Peer Letter}_i + X_i^N \lambda_N + X_i^{pre} \lambda_X + \varepsilon_i \tag{A.6}$$

As before, X_i^{pre} corresponds to the vector of pre-treatment control variables, which contains the same variables used for the rest of the analyses and is listed in Section 4.4 above. Again, since this is an experiment, the goal of using pre-treatment controls is to gain statistical power by reducing the variance of the error term (McKenzie, 2012). We will also use the pre-treatment data to construct falsification tests in an event-study fashion. The model includes a new vector of controls X_i^N. This vector includes a set of four dummy variables indicating how many of the five nearest neighbors were part of the subject pool. These dummies control for how many of the household's nearest neighbors could have (randomly) received a letter.[84]

Table A.6 presents the results. Column (1) shows results from a regression excluding the variable *Peer Letter*$_i$ for reference. The coefficient estimate on the *Own Letter*$_i$ variable, 2.661, is in between the size of the coefficient estimates on the variables basic aid letter and extra aid letter in Table 2, 1.792 and 3.509. The size of the coefficient in this column is expected because we are grouping the basic aid letter and extra aid letter variables into a single variable. In column (2) we include both the *Own Letter*$_i$ and *Peer Letter*$_i$ variables. This regression shows that a household's protest rate in 2020 is not affected by whether a neighbor received a letter: the coefficient on *Peer Letter*$_i$ is close to zero (-0.317), statistically insignificant and precisely estimated.

One potential concern with the specification in column (2) is that it is averaging the peer effects between households who received the letter directly and those who did not. If an individual received the letter directly (i.e., *Own Letter*$_i = 1$) then it should not matter whether the neighbors received the letter or not because they already know the information in the letter and do not need the neighbors to share any information. On the other hand, for

[84] Additionally, since a minority households have less than five neighbors within 0.1 km from them, we also control for a set of dummy variables for the number of neighbors who leave within 0.1 miles of the subject.

households who did not receive the letter directly (i.e., $Own\ Letter_i = 0$), it may matter a lot whether the neighbors received the letter or not, because they could still find out about the information through them. To address this concern, the specification in column (3) separates the effect of a neighbor that received a letter into whether or not the focal household also received a letter. The results in this column show that the probability of protesting did not increase significantly when a neighbor received a letter, regardless of whether the subject received the letter directly or not: the two coefficients on $Peer\ Letter_i$ are close to zero (-0.304 and -0.340), statistically insignificant and precisely estimated.

Last, we offer the same type of placebo tests, in a event-study fashion, that we present in the rest of the study. Columns (4), (5), and (6) reproduce the regressions from columns (1), (2), and (3), but where the dependent variable is whether the household protested in 2019 instead of whether the household protested in 2020. As expected, all the coefficients on treatment assignment are close to zero, statistically insignificant and precisely estimated.

A.5.3 Ruling out Fairness Considerations in the Extra Aid Message

One alternative mechanism of the effect of the extra aid message would be that it operated through fairness considerations: if households believed the opinion of value shown in the extra aid message represented the "fair value" for their homes, that would lead them to believe that their taxes are unfairly high. That alternative interpretation would be inconsistent with our definition of filing frictions. To rule this alternative interpretation out, we use data from the survey to test if, as hypothesized by the alternative mechanism, the extra aid message caused households to consider their own taxes as more unfair. Specifically, in the survey we asked the following question, "Relative to the other households in the county, do you think your household pays a fair amount in property taxes?" The sample includes 1,888 survey responses.[85] Figure A.11 demonstrates that households who received the extra aid message have similar responses in terms of perceived unfairness to those who received the basic aid message. We cannot reject the null hypothesis that the distribution of perceived fairness are the same for households who received the basic aid versus the extra aid letters. In sum, the evidence suggests that the extra aid message did not affect households' feelings of unfairness.

A.5.4 The Effects of the Letters by Whether the Household Received the DCAD Notification

In Section 4.6 we argued that if our basic aid letter worked primarily through a reminder effect, it should have had a larger effect on households that did not receive the DCAD letter.

[85] For more details about the survey data, see Nathan et al. (2023).

We showed that the effects of the basic aid letter on subjects that were and were not mailed a notice are on the same order of magnitude. It could be argued, however, that this is not an appropriate comparison since receiving or not a DCAD letter is not random. For this reason, as a robustness check, we estimated the effect of our letters on the probability of protesting for households near the threshold for receiving or not the DCAD letter. Figure A.12.a shows that the probability of receiving a notification is close to zero for properties that experienced no change or a decrease in value in 2020 and close to 1 for properties that experienced an increase in value in 2020 (recall that properties can receive a notification for other reasons such as ownership change or loss of homestead exemption). Figure A.12.b shows that the effect of both the basic and extra aid messages are very similar on either side of the threshold. The large standard error for houses that experienced a decrease in value is large due to the small number of properties meeting this condition.

A.5.5 Estimates for White and Hispanic Households

For the sake of completeness, we reproduce the estimates in Table 2 from the body of the paper separately for White and Hispanic households. Table A.7 presents the results for White households and Table A.8 for Hispanic households.

A.5.6 White and Hispanic Households: Direct Protests

In Figure A.14 we reproduce Figure 5 shown in the body of the paper, but restricting the analysis to direct protests. Recall that direct protests account for approximately one half of all protests, implying that the protests levels on the vertical axis in Figure A.14.a will be smaller when focusing on direct protests. The heterogeneity by both race and home value focusing on protests combining agents and direct that we discussed in the body of the paper persists qualitatively when focusing on direct protests. In terms of heterogeneity magnitude, comparing panel (a) of the figures between the body and appendix shows that protests through agents increase the heterogeneity by home value. The magnitude of the heterogeneity by race appears to be similar comparing these two figures in panel (a). Note that the smaller savings rates in panel (b) of Figure A.14 compared to panel (b) of Figure 5 are expected mechanically, since Figure 5 includes a larger number of protests by adding protests by agents.

Related to Avenancio-León and Howard (2022), the differences between White and Black households are smaller when focusing on direct protests in Figure A.14 compared to Figure 5 in the body of the paper combining direct and through agents protests.

Figure A.15 and Table A.9 reproduce Figure 6 and Table 3 in the body of the paper

but restricting the analysis to direct protests. The statistics on this figure and table are consistent with those in the body.

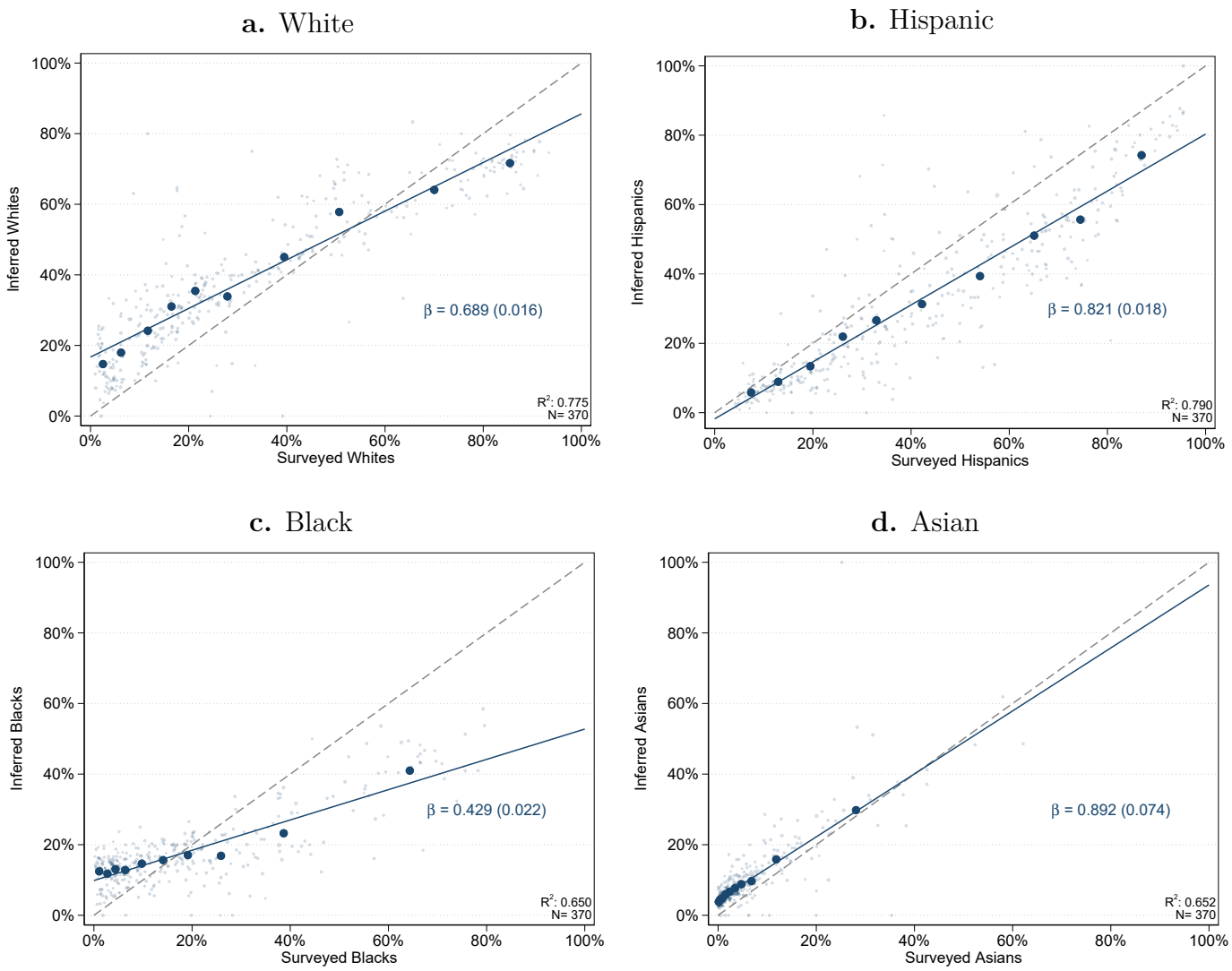
A.5.7 Difference between RedFin Estimates and Proposed Values: White versus Hispanics

One potential concern when comparing White and Hispanic households is that the DCAD systematically gives lower proposed values to Hispanics. This would be a concern because in such case Hispanics would have weaker incentives to protests than Whites.

Figure A.16 compares the percentage difference between RedFin home value estimates and proposed values by the DCAD. Since RedFin estimates may be inaccurate, we should take the statistics in this figure with caution. Nevertheless, the figure does not suggest that Hispanics households have lower proposed values than Whites households.

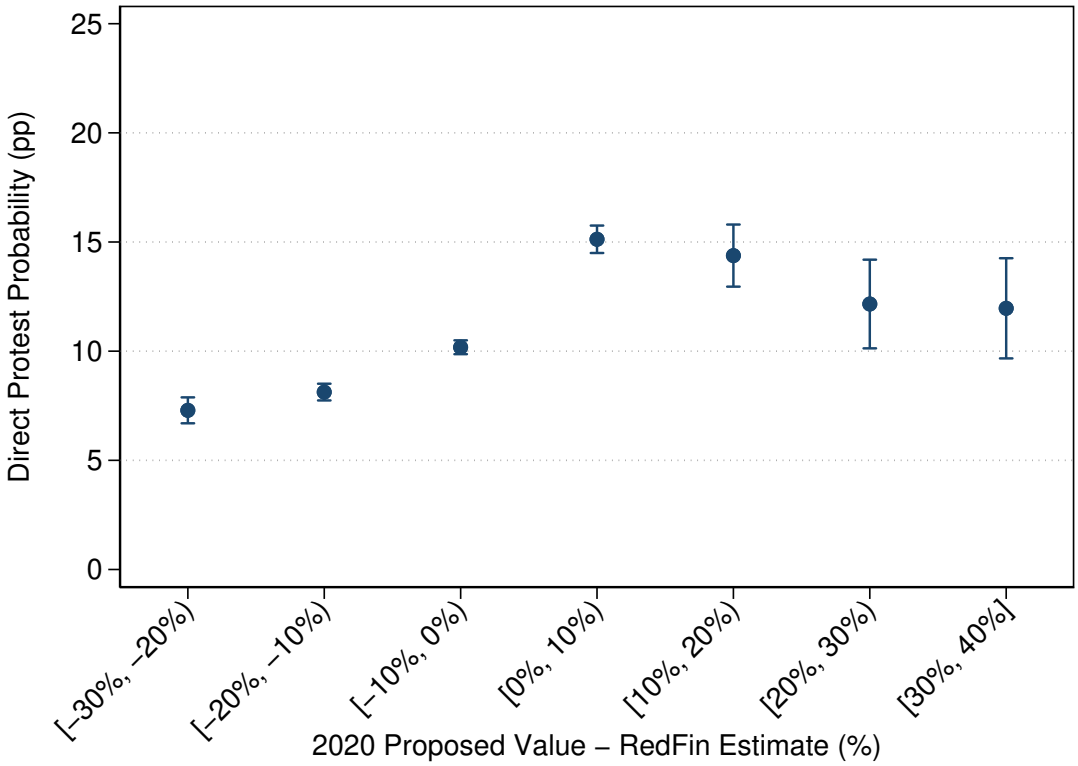
We can also use Figure A.16 to explore one of the mechanisms that could explain why owners of more expensive homes protest at a higher rate compared to owners of less expensive homes. Figure A.16 shows that proposed values are lower than RedFin estimates for cheaper homes compared to more expensive homes. According to these statistics, owners of more expensive homes may have higher incentives to protest than owners of cheaper homes, which could help explain the relatively higher propensity to protest of owners of more expensive homes.

Figure A.1: Validation of Ethnicity Measures: Inferred Ethnicity Versus Survey Data by Census Tract



Notes: This figure features the relationship between inferred ethnicity and the percentage of survey respondents to the 2020 Decennial Census indicating that ethnicity, by Census tract, for the following ethnicities: White (panel (a)), Hispanic (panel (b)), Black (panel (c)), and Asian (panel (d)). Each light dot corresponds to a different Census tract, while the dark dots denote the corresponding binned scatterplot. The dashed line is the 45-degree line, representing what a one-to-one relationship between the inferred ethnicity and surveyed ethnicity results would look like. The blue line corresponds to a linear regression. β corresponds to the slope of this regression, with the robust standard error shown in parentheses.

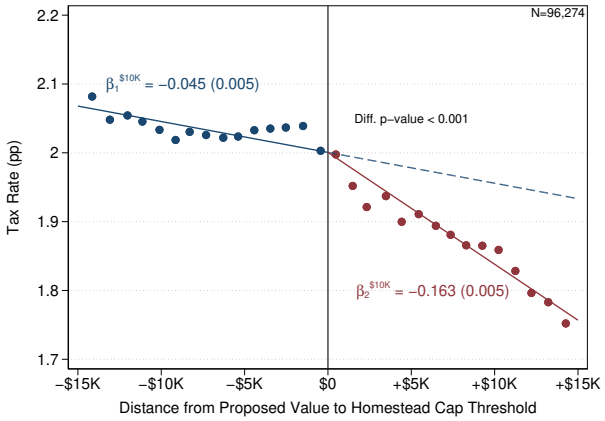
Figure A.2: Direct Protest Rates by Percent Difference Between RedFin Estimate and Proposed Value



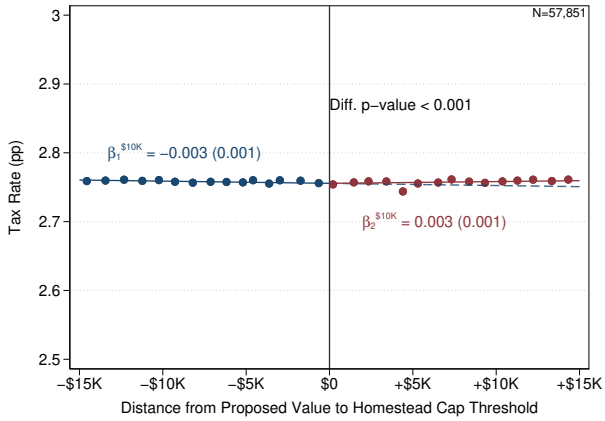
Notes: Point estimates with 95% confidence intervals in brackets, based on robust standard errors. This figure shows direct protest rates versus differences between households' 2020 proposed values and RedFin's estimates of their home's market value. The differences between proposed values and RedFin estimates are expressed as a percent of the 2020 proposed value, then split into 10%-width bins. Each bin is left-inclusive, except the [30%, 40%] bin which also includes the right end-point. RedFin estimates are censored below 70% and above 140% of the proposed value.

Figure A.3: Effects of the Homestead Cap on the Tax Rate

a. Homestead Status: Tax Rate

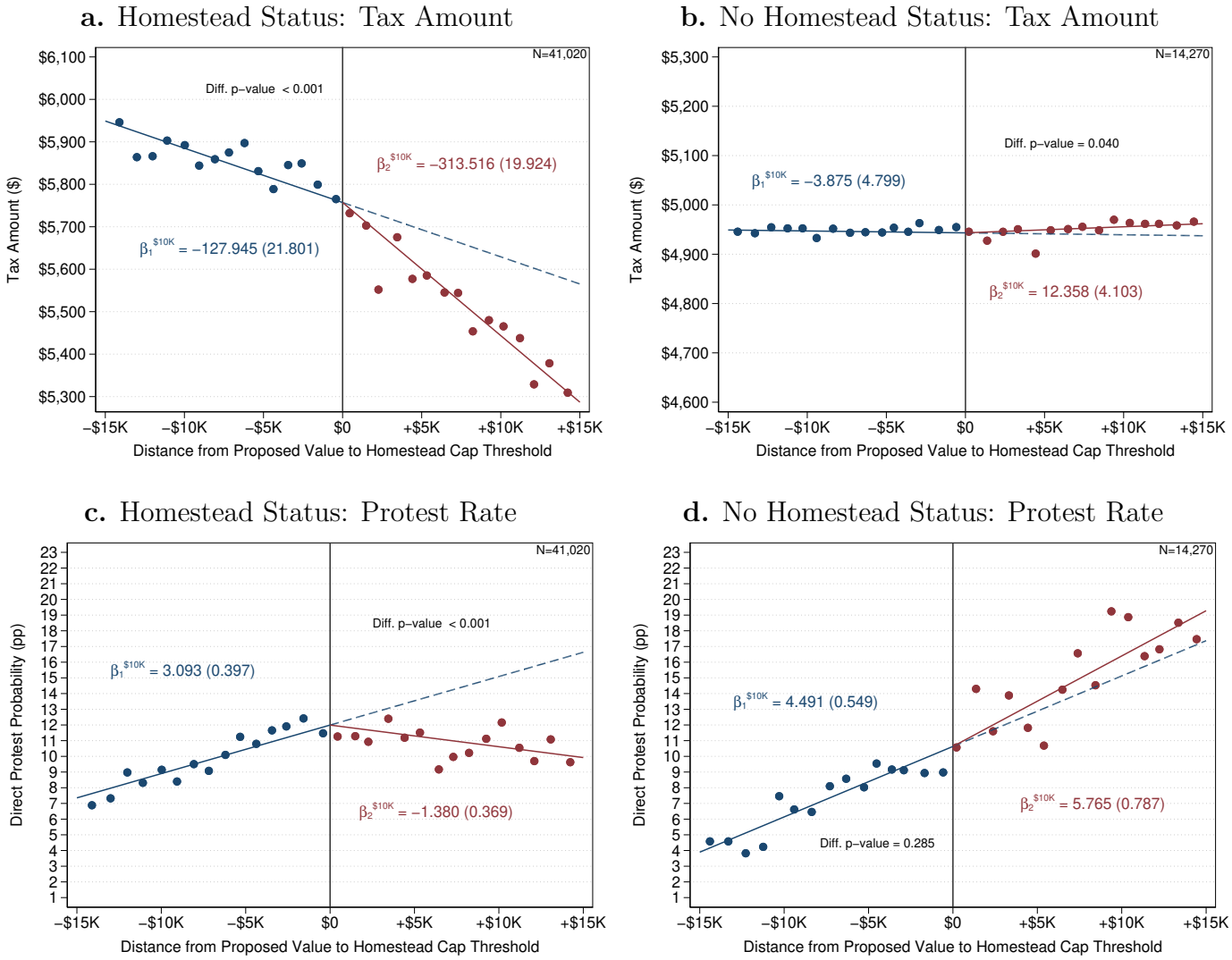


b. No Homestead Status: Tax Rate



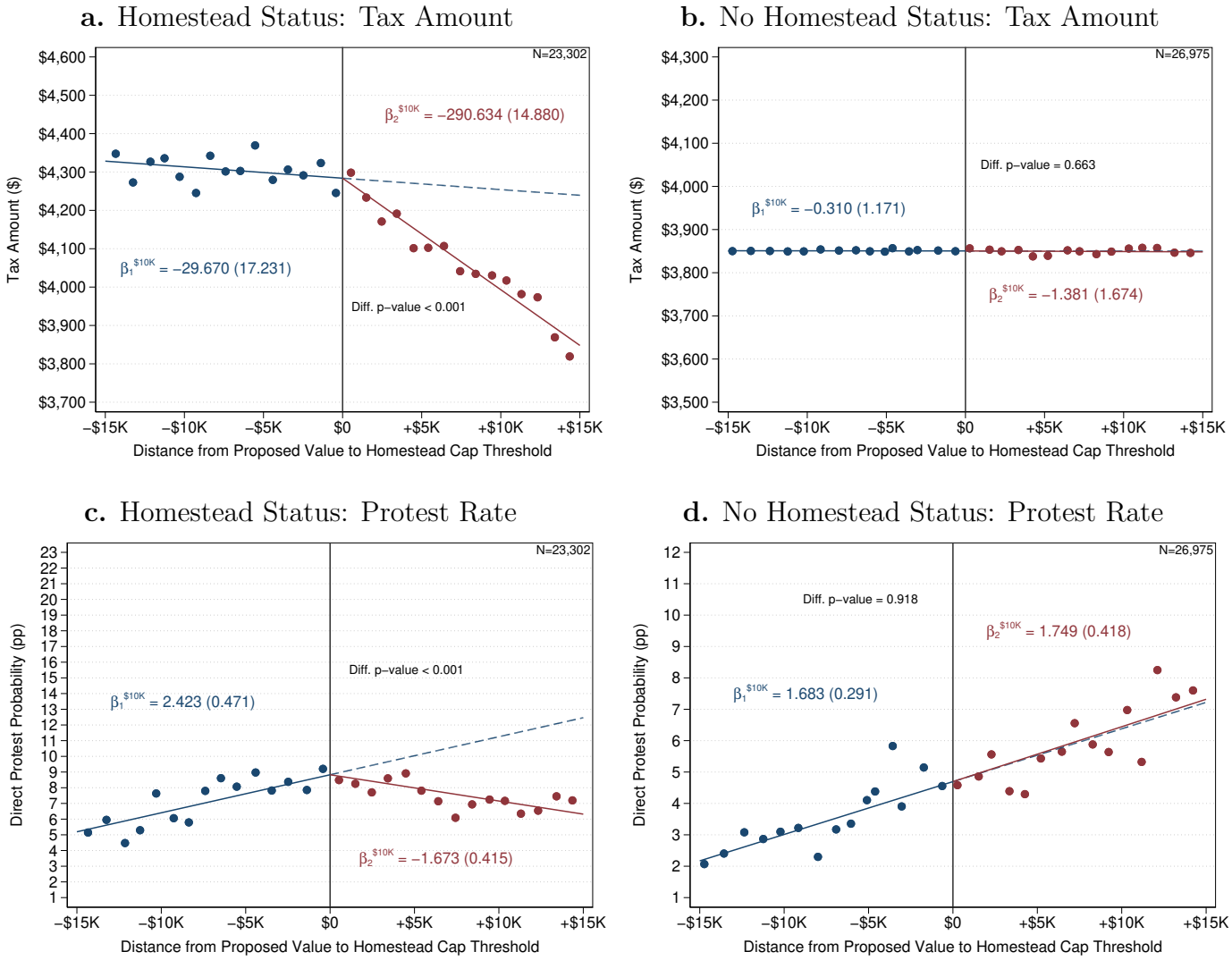
Notes: This figure features binned scatterplots of the relationship between the tax rate and the distance (in dollars) between the 2020 proposed value and the 2020 potential homestead cap threshold (defined as 110% of the appraised value in the previous year). All regressions control for the proposed value, a dummy for whether the household protested in the previous year, and a set of school district dummies. The sample is restricted to properties for which the proposed value is within $15,000 of the potential homestead threshold. The lines correspond to linear regressions, with normalized slopes reported next to them along with robust standard errors (in parentheses) and the number of households (in the top right corner). Panel (a) on the left corresponds to households with 2020 homestead status and panel (b) on the right corresponds to households without 2020 homestead status. The dependent variables is *Tax Rate*, the estimated tax rate, defined as the tax amount based on 2020 proposed values divided by the 2020 proposed value.

Figure A.4: Effects of the Homestead Cap on the Tax Amount and on the Probability of Protesting, White Households



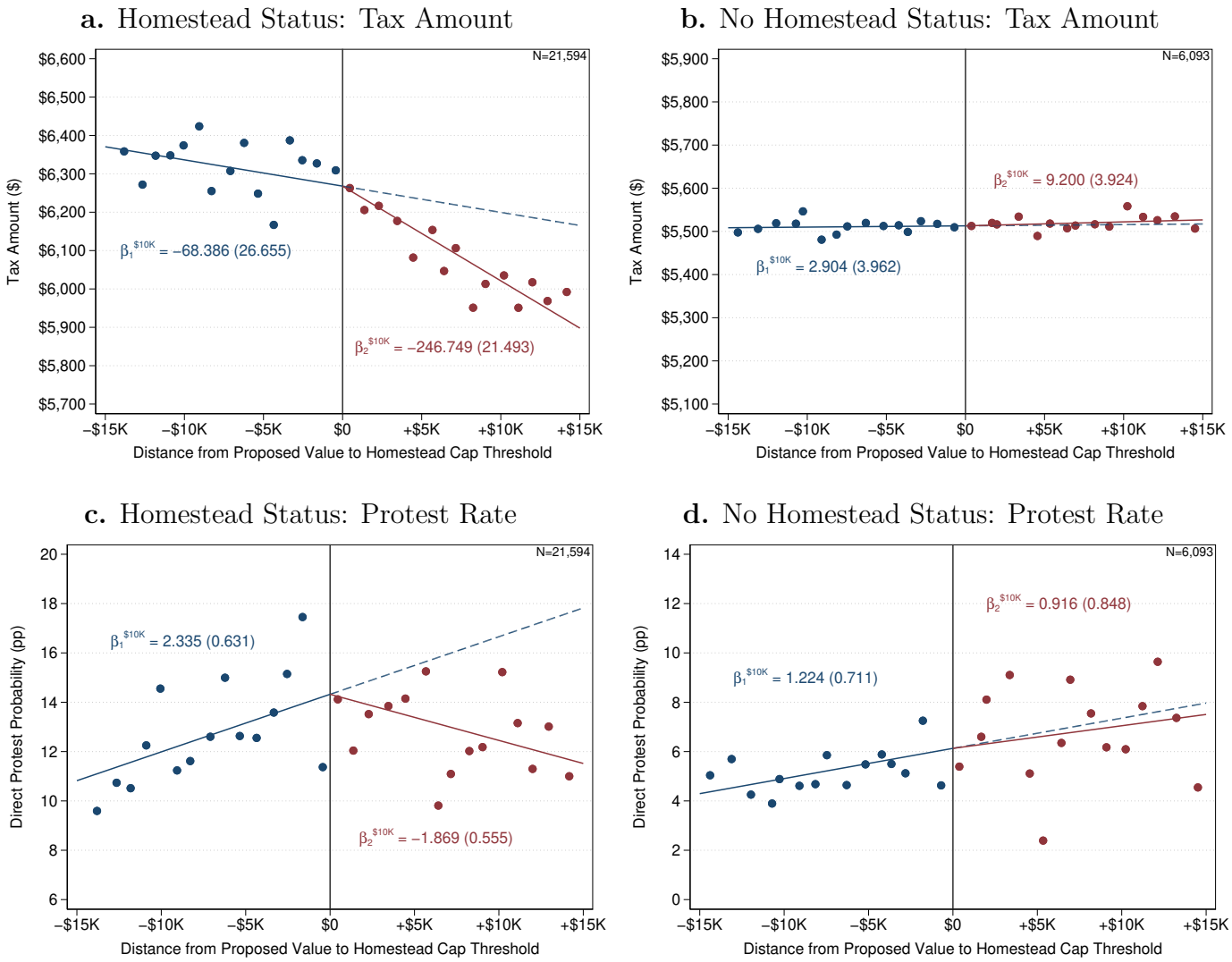
Notes: This figure is identical to Figure 1, except that it restricts to the subsample of White households. Each panel features binned scatterplots of the relationship between a given outcome (indicated on the y-axis of each panel) and the distance between the 2020 proposed value and the 2020 potential homestead cap threshold (defined as 110% of the appraised value in the previous year). All regressions control for the proposed value, a dummy for whether the household protested in the previous year, and a set of school district dummies. The sample is restricted to properties for which the proposed value is within $15,000 of the potential homestead threshold. For ease of exposition, we normalize all coefficients so that they correspond to the effects from a $10,000 increase in the proposed value. The lines correspond to linear regressions, with normalized slopes reported next to them along with robust standard errors (in parentheses) and the number of households (in brackets in the top right corner). The panels on the left half ((a) and (c)) correspond to households with 2020 homestead status, while the panels on the right half ((b) and (d)) correspond to households without 2020 homestead status. The dependent variables are: *Tax Amount* is the estimated tax amount based on 2020 proposed values and P_{2020} is an indicator variable that takes the value 100 if the household protested directly in 2020 and 0 otherwise.

Figure A.5: Effects of the Homestead Cap on the Tax Amount and on the Probability of Protesting, Hispanic Households



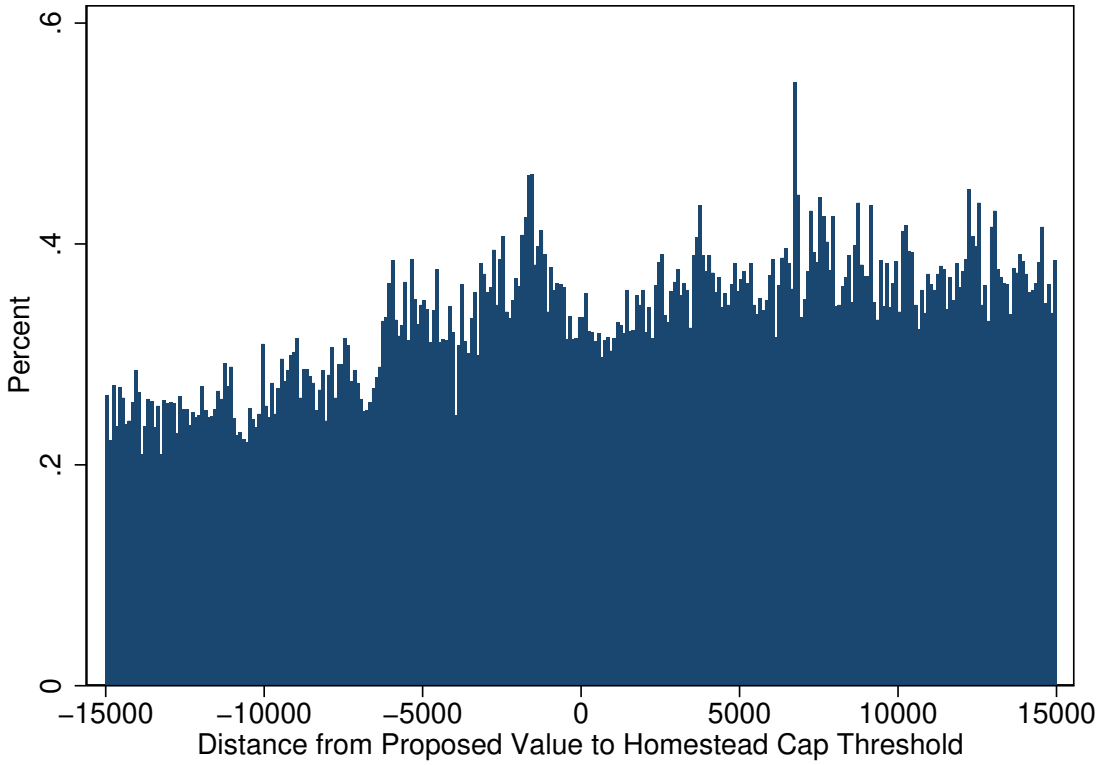
Notes: This figure is identical to Figure 1, except that it restricts to the subsample of Hispanic households. Each panel features binned scatterplots of the relationship between a given outcome (indicated on the y-axis of each panel) and the distance between the 2020 proposed value and the 2020 potential homestead cap threshold (defined as 110% of the appraised value in the previous year). All regressions control for the proposed value, a dummy for whether the household protested in the previous year, and a set of school district dummies. The sample is restricted to properties for which the proposed value is within $15,000 of the potential homestead threshold. For ease of exposition, we normalize all coefficients so that they correspond to the effects from a $10,000 increase in the proposed value. The lines correspond to linear regressions, with normalized slopes reported next to them along with robust standard errors (in parentheses) and the number of households (in brackets in the top right corner). The panels on the left half ((a) and (c)) correspond to households with 2020 homestead status, while the panels on the right half ((b) and (d)) correspond to households without 2020 homestead status. The dependent variables are: *Tax Amount* is the estimated tax amount based on 2020 proposed values and P_{2020} is an indicator variable that takes the value 100 if the household protested directly in 2020 and 0 otherwise.

Figure A.6: Field Experiment Sample: Effects of the Homestead Cap on the Tax Amount and on the Probability of Protesting



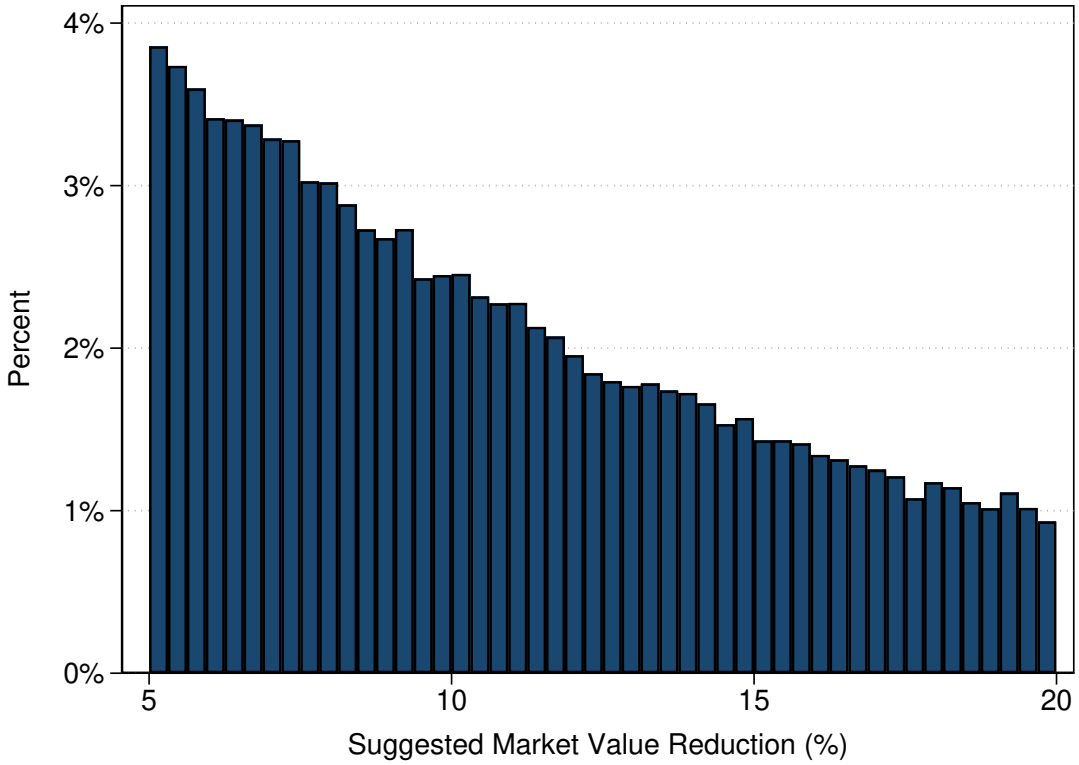
Notes: This figure is identical to Figure 1, except that it restricts to the subsample of households in the field experiment. Each panel features binned scatterplots of the relationship between a given outcome (indicated on the y-axis of each panel) and the distance between the 2020 proposed value and the 2020 potential homestead cap threshold (defined as 110% of the appraised value in the previous year). All regressions control for the proposed value, a dummy for whether the household protested in the previous year, and a set of school district dummies. The sample is restricted to properties for which the proposed value is within $15,000 of the potential homestead threshold. For ease of exposition, we normalize all coefficients so that they correspond to the effects from a $10,000 increase in the proposed value. The lines correspond to linear regressions, with normalized slopes reported next to them along with robust standard errors (in parentheses) and the number of households (in brackets in the top right corner). The panels on the left half ((a) and (c)) correspond to households with 2020 homestead status, while the panels on the right half ((b) and (d)) correspond to households without 2020 homestead status. The dependent variables are: *Tax Amount* is the estimated tax amount based on 2020 proposed values and P_{2020} is an indicator variable that takes the value 100 if the household protested directly in 2020 and 0 otherwise.

Figure A.7: Distribution of Proposed Values Around the Homestead Cap



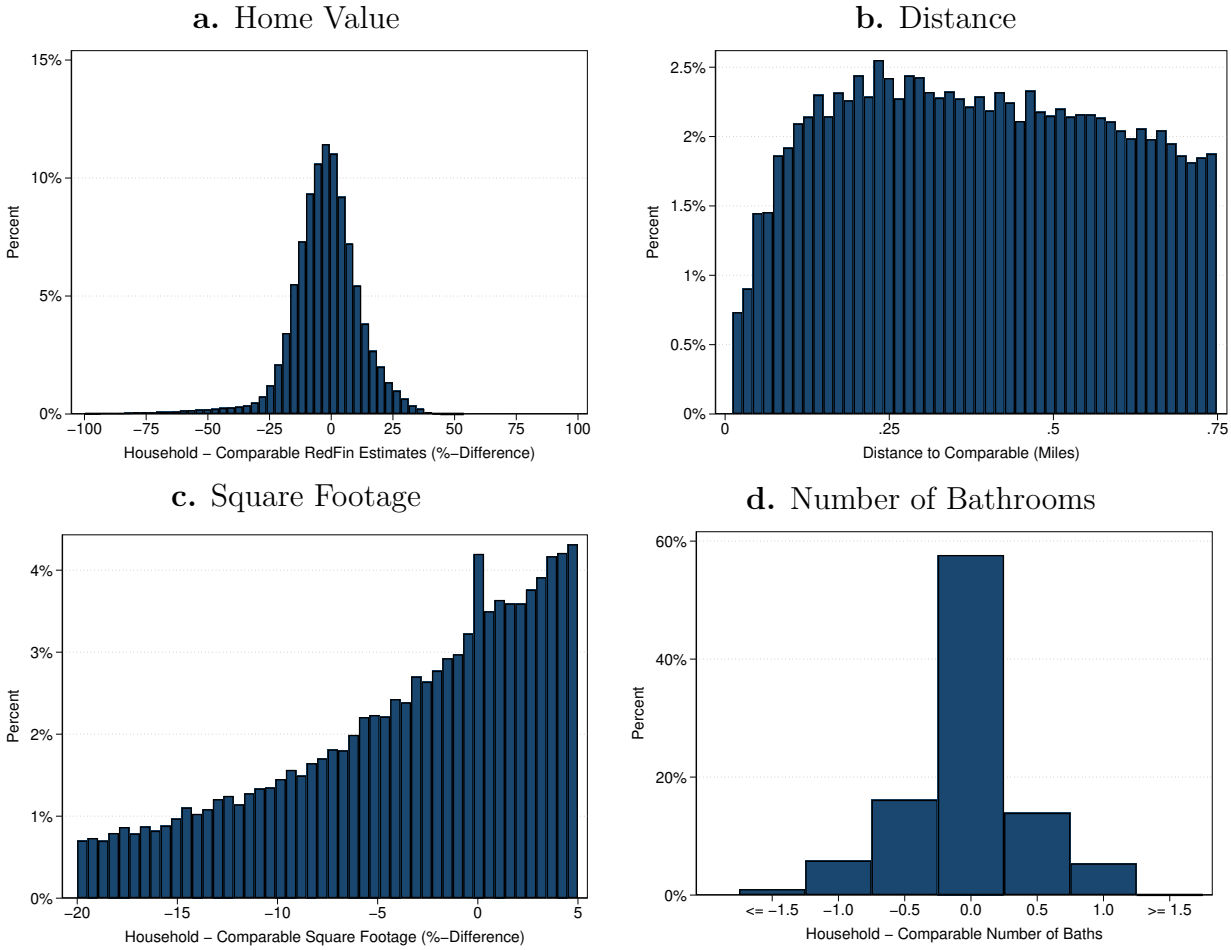
Notes: This figure is based on the subsample of 96,274 households with proposed values within $15,000 of the homestead cap, out of the main sample of 423,607 single-family homes in 2020. It shows the distribution of proposed values within $15,000 of the homestead cap for households with a homestead exemption. For ease of exposition, we normalize all coefficients so that they correspond to the effects from a $10,000 increase in the proposed value. Each bin is right-endpoint-inclusive and has a width of $100.

Figure A.8: Distribution of Market Value Reduction Suggested by the Extra Aid Message



Notes: This figure shows the distribution of reduction in market value suggested by the extra aid message, expressed as a percentage of the home's market value as notified by the DCAD, for all households in the subject pool of the field experiment. *Suggested Market Value Reduction* is defined as the difference between the household's proposed value (as notified by the DCAD) and the sale price of the nearby, comparable home that was chosen by our algorithm, divided by the proposed value. Each household that was mailed the extra aid letter had the comparable home included in the letter which could be used to support the household's protest (see Section 4.1). Details about the algorithm used to select comparison homes are contained in Appendix A.4.

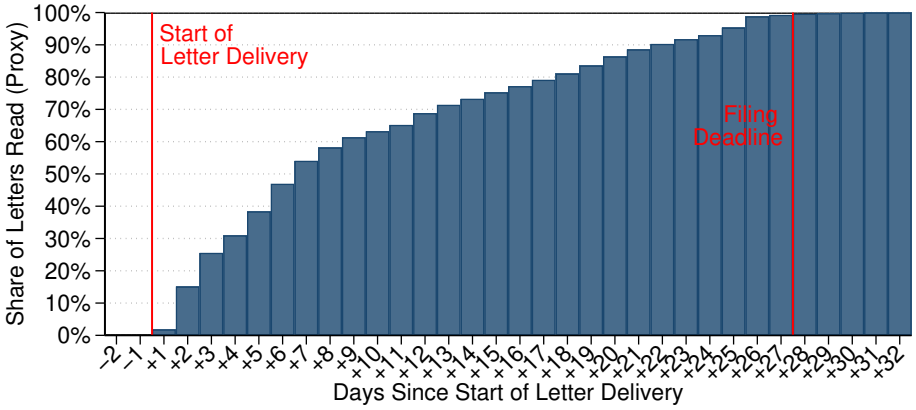
Figure A.9: Differences between Subjects' Properties and their Comparable Properties



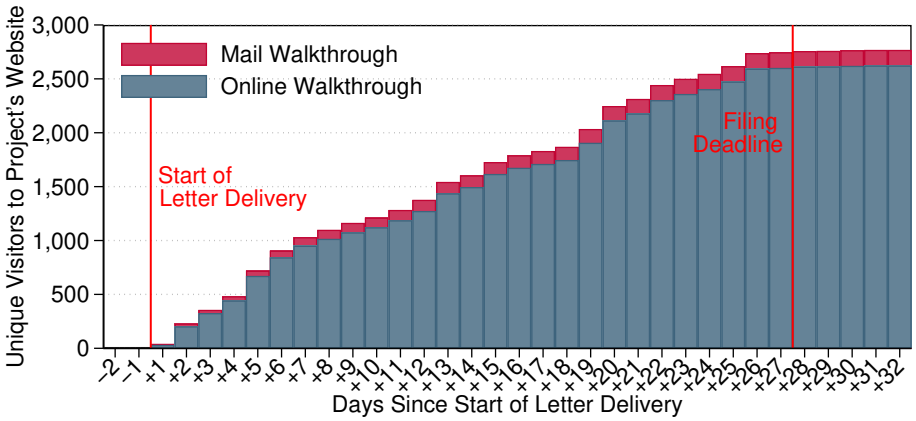
Notes: This figure shows distributions of differences in characteristics between subject households in the field experiment and nearby, comparable homes chosen by our algorithm. Panel (a) presents the distribution of differences in subject households and their comparison homes' RedFin estimates (or when those are not available, Zillow estimates), expressed as a percentage of the subject household's proposed value. Panel (b) features the distribution of distances (in miles) from each subject household to its comparison home. Panel (c) shows the distribution of differences between each subject household's square footage and the square footage of its comparison home. Panel (d) presents the distribution of differences between each subject household's number of bathrooms and the number of bathrooms of its comparison home. Each household that was mailed the extra aid letter had the comparable home included in the letter which could be used to support the household's protest (see Section 4.2). Details about the algorithm used select comparison homes can be found in Appendix A.4.

Figure A.10: Timing of Survey Responses, Visits to the Website and Tax Protests

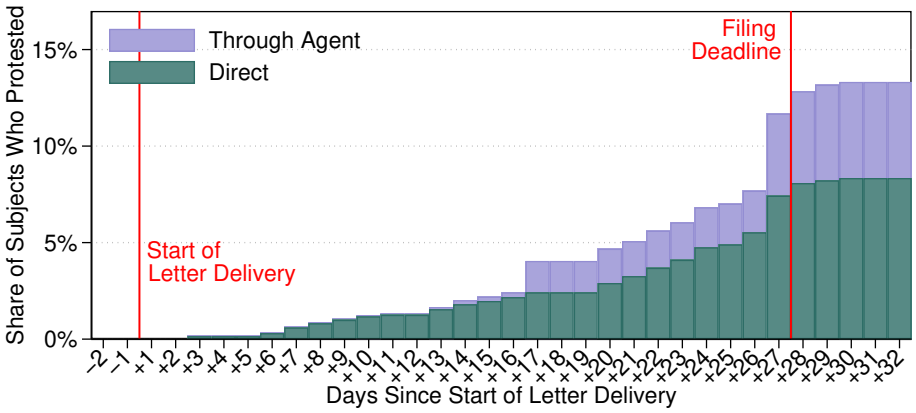
a. Cumulative Share of Survey Responses



b. Unique Visitors to the Project's Website

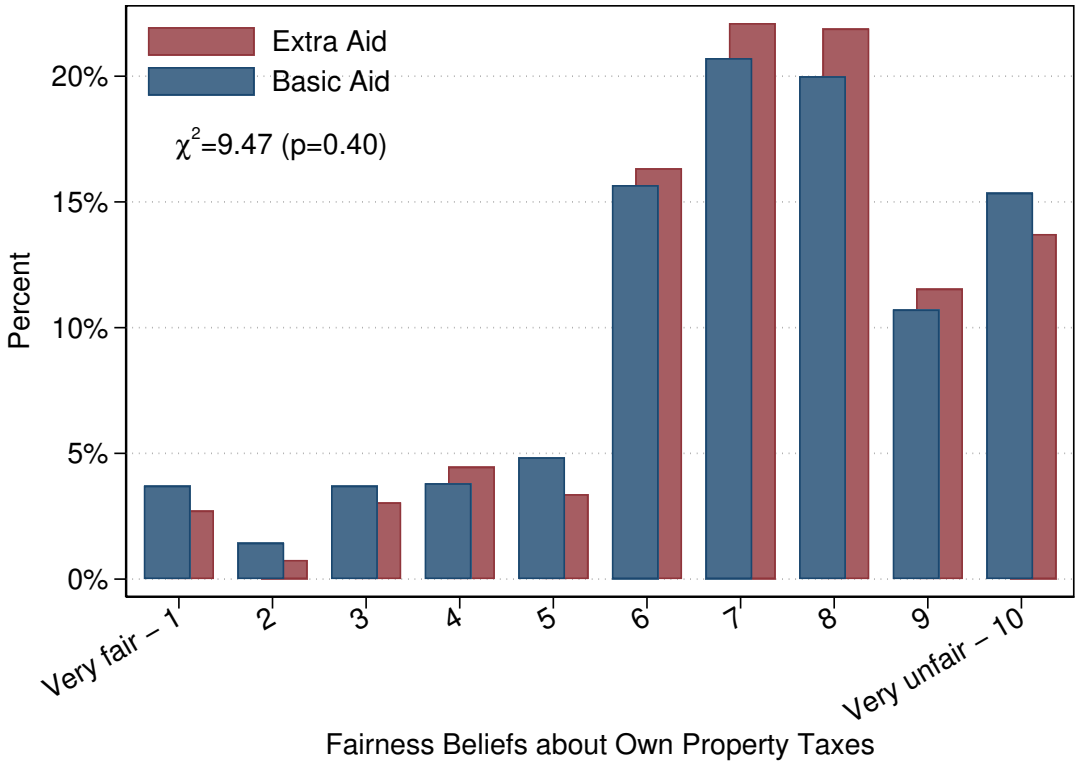


c. Cumulative Share of Subjects Who Protested (Control)



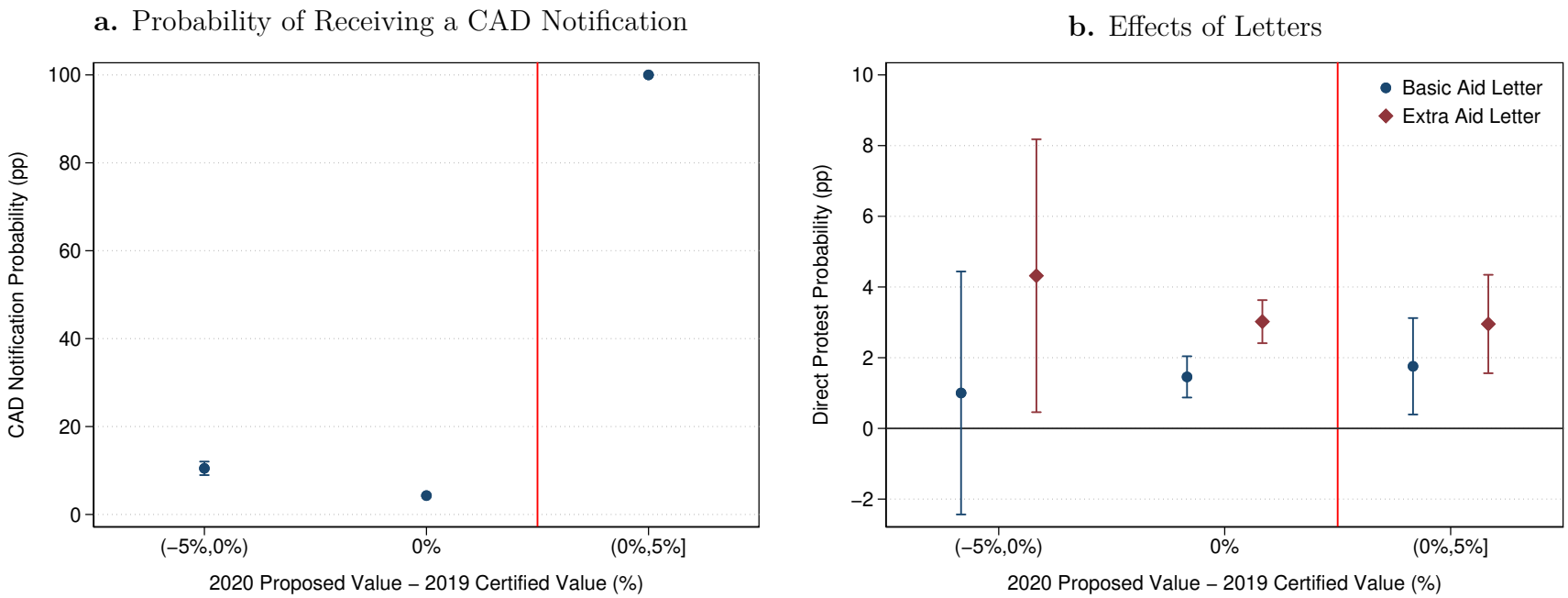
Notes: The first red line in each panel indicates the date when the first letter was delivered (May 21st, 2020), and the second line denotes the deadline for filing a protest (June 15th, 2020). Panel (a) shows the cumulative fraction of the 1,888 responses to the survey included in the field experiment. Panel (b) shows the cumulative number of unique visitors to the website, by the type of activity. Panel (c) shows the cumulative fraction of subjects who protested out of the 28,068 control subjects in the field experiment who were not mailed a letter, by type of protest.

Figure A.11: Survey Responses about Perceived Unfairness of Own Taxes



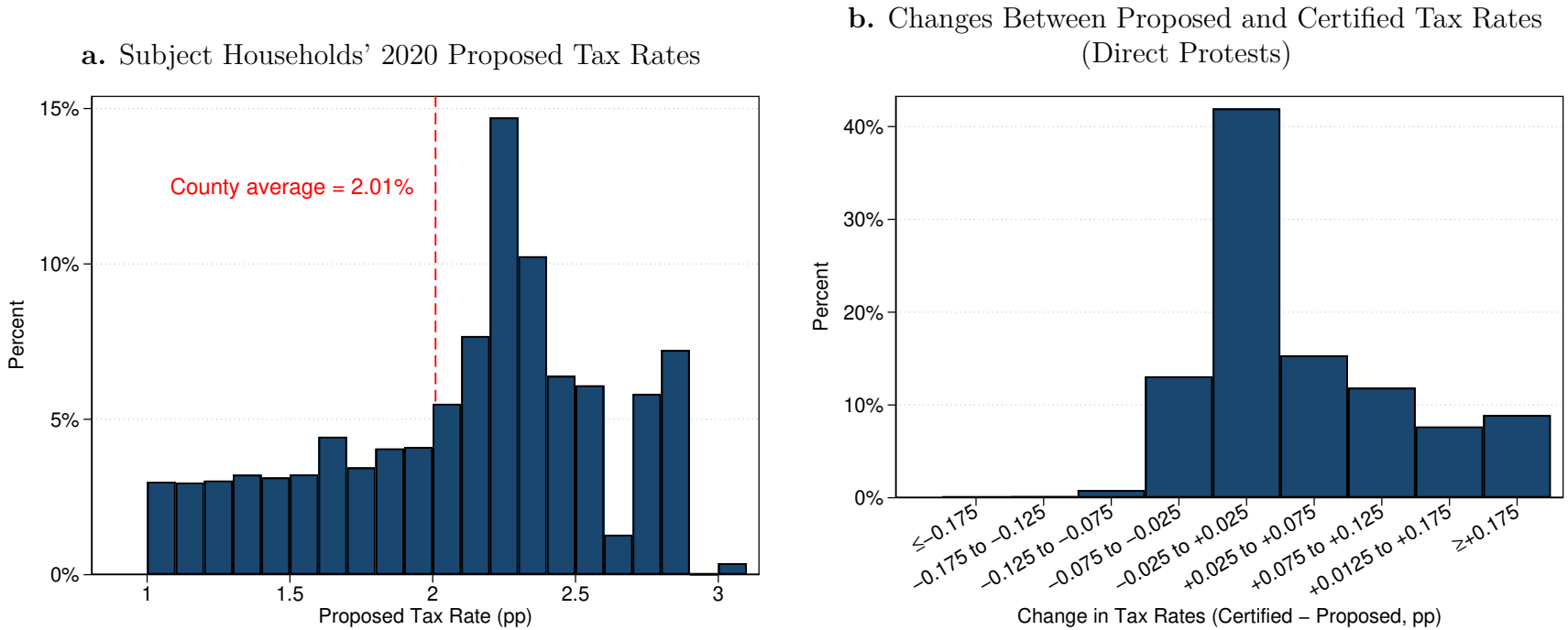
Notes: This figure features responses to the survey question, "Relative to the other households in the county, do you think your household pays a fair amount in property taxes?" Responses are broken down by whether households received the basic aid or extra aid letter.

Figure A.12: Effects of the Basic Aid and Extra Aid Messages on Direct Protests, by Difference Between 2020 Proposed Value and 2019 Certified Value



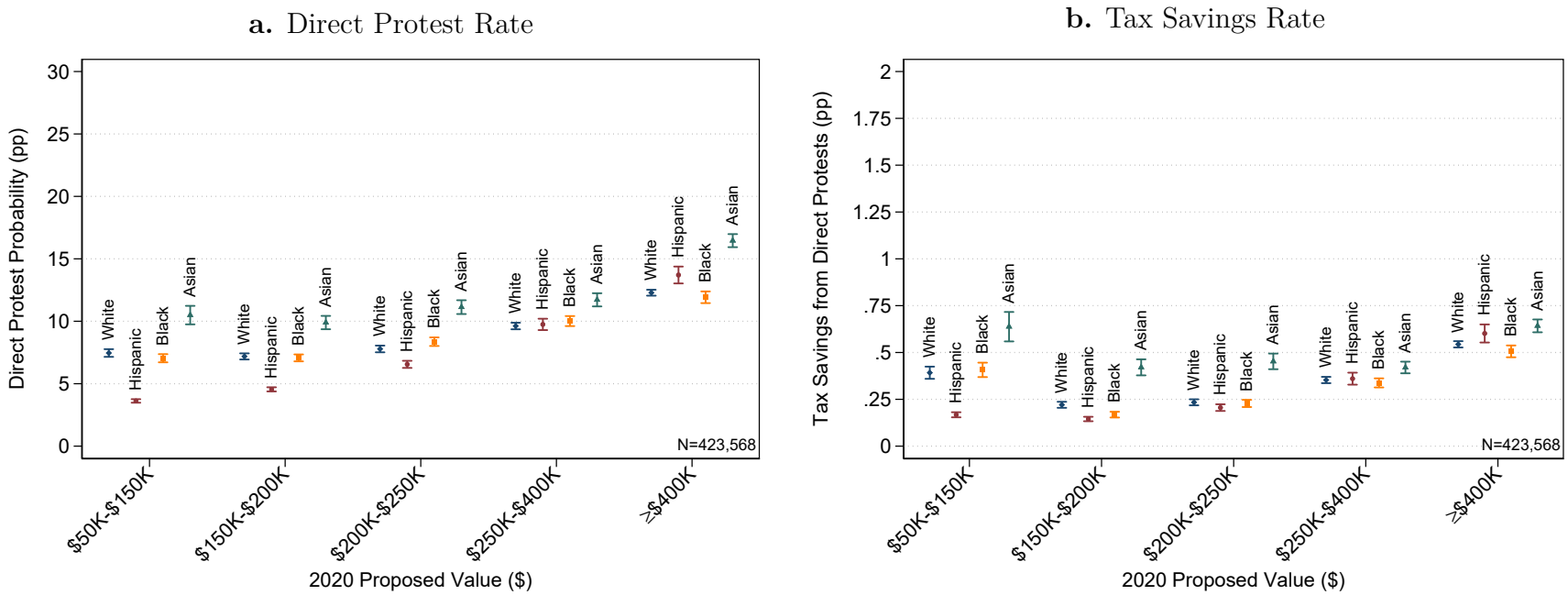
Notes: Point estimates with 90% confidence intervals in brackets, based on robust standard errors. Data from households from the field experiment. In both panels, the bins on the x-axis correspond to the difference between the 2020 proposed value and the 2019 certified value, as a percent of the 2019 certified value. Panel (a) shows the average probability of receiving a CAD notification within each bin. Panel (b) shows the effects of the basic aid and extra aid letters, within each bin, using the same baseline specification from column (1) of Table 2. The blue dots represent the effects of the basic aid letter (relative to the no letter group), while the red diamonds represent the effects of the extra aid letter (relative to the no letter group).

Figure A.13: Distributions of Subject Households' Property Tax Rates and Tax Rate Changes Due to Protesting



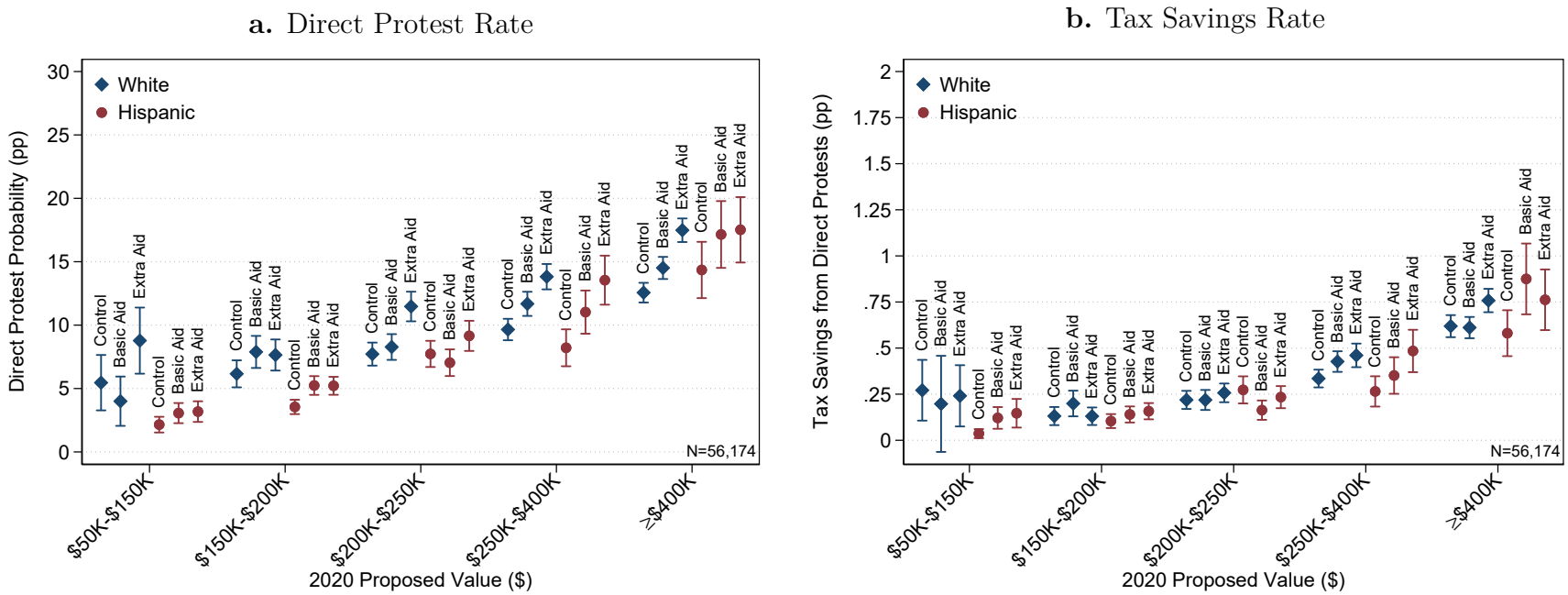
Notes: Panel (a) shows the distribution of 2020 proposed tax rates (i.e., prior to protesting) for subjects in the field experiment. The dashed red line indicates the average proposed tax rate across the main sample of single-family homes in the county. Panel (b) presents the distribution of tax rate changes, computed as the difference between certified tax rate and proposed tax rate, for subjects in the field experiment whose direct protests in 2020 successfully reduced their household's market value. Bins are left-end-point-inclusive. Proposed tax rate is defined as the household's proposed tax amount divided by its proposed market value (as notified by the DCAD). Certified tax rate is the certified tax amount divided by the certified market value.

Figure A.14: Direct Protest Rates and Tax Savings, by Race and Home Value



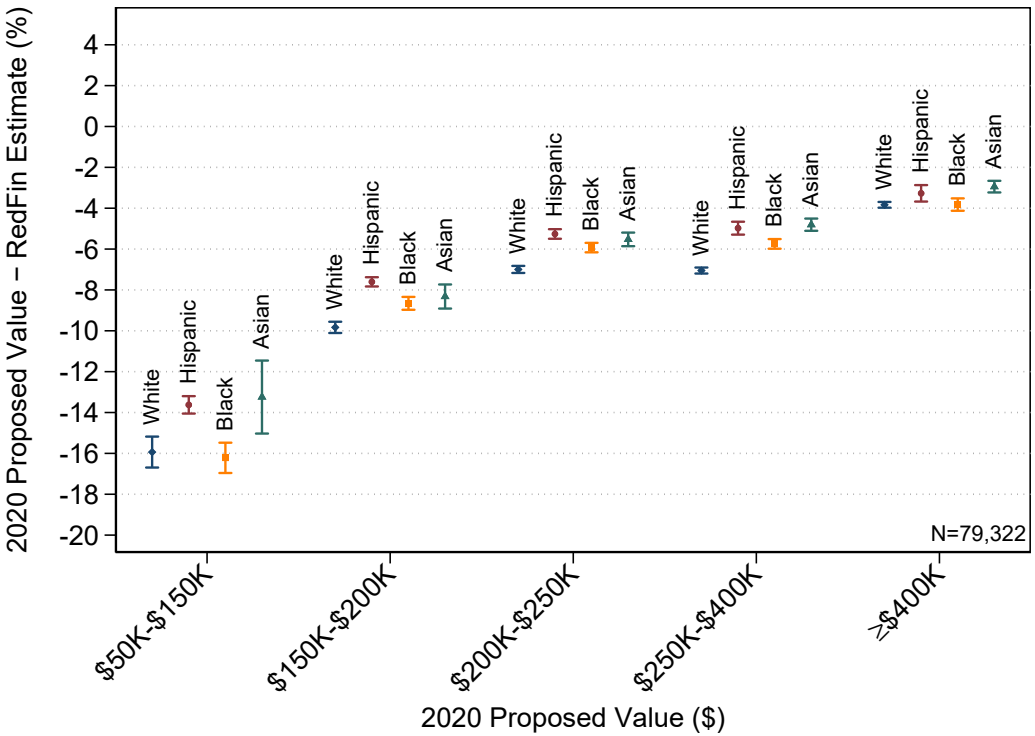
Notes: This figure presents descriptive statistics by race for the main sample of 423,607 single-family homes in 2020. 90% confidence intervals in brackets, based on robust standard errors. The x-axis in each panel denotes the (approximate) quintiles of the proposed values announced by the DCAD on May 15th, 2020. Each point in panel (a) represents the share of those households who protested directly in 2020, and each point in panel (b) represents the estimated percentage reduction in the tax amount due to protesting directly. Blue diamonds correspond to White households, red dots correspond Hispanic households, yellow squares correspond to Black households, and green triangles correspond to the households identified as Asian.

Figure A.15: Direct Protest Rates, by Treatment Group and Home Value: Hispanics Versus Whites



Notes: This figure presents direct protest rates by ethnicity based on the 56,174 households that the ethnicity algorithm classified as White or Hispanic, out of the 78,462 single-family homes in the field experiment's subject pool (and had not filed a protest before receiving the letter). 90% confidence intervals in brackets, based on robust standard errors. The x-axis in each panel denotes the (approximate) quintiles of the proposed values announced by the DCAD on May 15th, 2020. Each point in panel (a) represents the share of those households who protested directly in 2020, and each point in panel (b) represents the estimated percentage reduction in the tax amount due to protesting directly. Blue diamonds correspond to White households, and red dots correspond to the households identified as Hispanic.

Figure A.16: Percent Difference Between RedFin Estimate and Proposed Value, by Race



Notes: This figure presents descriptive statistics by race for the main sample of 423,607 single-family homes in 2020. 90% confidence intervals in brackets, based on robust standard errors. The x-axis in each panel denotes the (approximate) quintiles of the proposed values announced by the DCAD on May 15th, 2020. Each point represents the mean difference between households' proposed values and RedFin's estimates of their home's market value, for the quintile of home value and race indicated. The differences between proposed values and RedFin estimates are expressed as a percent of the 2020 proposed value. Blue diamonds correspond to White households, red dots correspond Hispanic households, yellow squares correspond to Black households, and green triangles correspond to the households identified as Asian.

Table A.1: Descriptive Statistics: Quasi-Experiment and Field Experiment Samples

	(1) QE Mean/SE	(2) QE-H Mean/SE	(3) QE-NH Mean/SE	(4) FE Mean/SE
2020 Home Value ($1,000s)	306.91	259.21	159.47	343.91
	(0.56)	(0.55)	(0.37)	(1.15)
Number of Bedrooms	3.24	3.29	2.93	3.31
	(0.00)	(0.00)	(0.00)	(0.00)
2020 Property Tax Amount ($1,000s)	6.15	5.15	4.39	7.17
	(0.01)	(0.01)	(0.01)	(0.02)
2020 Property Tax Rate (%)	1.98	1.95	2.76	2.10
	(0.00)	(0.00)	(0.00)	(0.00)
2019 Owner-Protest (%)	5.93	6.12	4.57	5.95
	(0.04)	(0.08)	(0.09)	(0.08)
2019 Agent-Protest (%)	7.96	5.59	7.68	4.64
	(0.04)	(0.07)	(0.11)	(0.08)
2020 Homestead Exemption (%)	74.24	100.00	0.00	83.81
	(0.07)	(0.00)	(0.00)	(0.13)
Age				52.29
				(0.06)
White (%)	38.58	42.61	24.67	44.06
	(0.07)	(0.16)	(0.18)	(0.18)
Hispanic (%)	30.46	24.20	46.63	27.54
	(0.07)	(0.14)	(0.21)	(0.16)
Black (%)	20.21	22.93	16.63	18.62
	(0.06)	(0.14)	(0.15)	(0.14)
Asian (%)	10.75	10.25	12.07	9.78
	(0.05)	(0.10)	(0.14)	(0.11)
Observations	423,607	96,274	57,851	78,462

Notes: Average pre-treatment characteristics (i.e., prior to the letter delivery) are shown in columns (1)–(4), with standard errors in parentheses. Column (1) corresponds to the quasi-experiment (QE) sample. Columns (2) and (3) correspond to the households in the quasi-experiment within the $15,000 bandwidth with and without homestead status, respectively (QE-H and QE-NH). Column (4) corresponds to the subsample of the subjects from column (1) who were selected to participate in the field experiment (FE). *Home Value* is the proposed value; *Number of Bedrooms* is the number of bedrooms in the home; *Property Tax Amount* is the estimated amount of property taxes based on the notified value; *Property Tax Rate* is the ratio of *Property Tax Amount* over *Home Value*; *Owner-Protest* and *Agent-Protest* indicate whether the subject protested directly or through an agent, respectively; *2020 Homestead Exemption* indicates an effective homestead exemption. In columns (1)–(4), the first seven variables are obtained from the county's administrative records, the age variable is provided by a private company and only available for the sample used in the field experiment, and the ethnicity variables are inferred using an algorithm that analyzes the homeowners' first and last names.

Table A.2: Protest Rates by Year

	Year				
	(1) 2016	(2) 2017	(3) 2018	(4) 2019	(5) 2020
Panel A. Direct Protests					
% Protested (Direct)	4.89	6.11	6.39	5.93	8.40
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
% Successful | Protested (Direct)	59.34	56.06	60.99	61.26	69.68
	(0.38)	(0.33)	(0.31)	(0.31)	(0.24)
Market Value Reduction, Direct ($1,000s)	23.28	23.30	27.87	30.62	28.20
	(0.34)	(0.30)	(0.31)	(0.36)	(0.26)
Observations	341,097	363,244	385,455	423,607	423,607
Panel B. Agent Protests					
% Protested (Agent)	7.62	7.52	8.58	7.96	8.42
	(0.05)	(0.04)	(0.05)	(0.04)	(0.04)
% Successful | Protested (Agent)	39.50	37.67	44.01	40.89	56.91
	(0.30)	(0.29)	(0.27)	(0.27)	(0.26)
Market Value Reduction, Agent ($1,000s)	28.83	26.99	31.61	35.49	29.13
	(0.48)	(0.42)	(0.41)	(0.60)	(0.36)
Observations	341,097	363,244	385,455	423,607	423,607

Notes: Panel A reports direct protests and panel B reports protests through agents. All statistics are based on the main sample of 423,607 single-family households in 2020. This table uses a panel dataset for households in the main sample in 2020 (i.e., households which appear in the DCAD's records in both the year shown and in the main sample in 2020). % Protested (Direct) and % Protested (Agent) represent the percentage of households who protested directly and through an agent respectively; % Successful | Protested (Direct) and % Successful | Protested (Agent) represent the share of direct and agents protests that were successful respectively; and Mean Market Value Reduction, Direct ($1,000s) and Mean Market Value Reduction, Agent ($1,000s) represent the average reduction in the taxable value for successful protests.

Table A.3: Effects of the Homestead Cap on the Probability of Protesting Directly, Using Alternative Bandwidths

	(1) T_{2020}	(2) P^d_{2020}	(3) T_{2020}	(4) P^d_{2020}	(5) T_{2020}	(6) P^d_{2020}
$\mathbb{1}(A_i > \bar{A}_i) \cdot (A_i - \bar{A}_i)$	-209.334***	-4.486***	-186.410***	-3.924***	-144.122***	-3.252***
	(21.069)	(0.443)	(7.711)	(0.157)	(4.940)	(0.087)
Bandwidth	\$15K	\$15K	\$30K	\$30K	\$50K	\$50K
Mean Outcome	5,153.25	9.98	4,970.60	8.94	4,969.29	8.25
Std. Dev. Outcome	3,796.84	29.97	3,834.84	28.53	4,134.13	27.51
Observations	96,274	96,274	179,453	179,453	257,291	257,291

Notes: Significant at *10%, **5%, ***1%. Robust standard errors in parentheses. Each column presents results from a regression that follows the specification presented in equation (1) from Section 3.3 in the body. Columns (1) and (2) reproduce the results from columns (1) and (2) in Table 1 in the body. Columns (3) through (6) are similar to columns (1) and (2), but use alternative bandwidths. All results are based on the main sample of single-family homes with 2020 proposed values within the bandwidth indicated in each column. For ease of exposition, we normalize all coefficients so that they correspond to the effects from a \$10,000 increase in the proposed value. The effect on the variable of interest, $\mathbb{1}(A_i > \bar{A}_i) \cdot (A_i - \bar{A}_i)$, represents the change in the slope before and after the homestead cap threshold in Figure 1 in the body. All regressions control for the proposed value, a dummy for whether the household protested in the previous year, and a set of school district dummies, as in Figure 1 in the body. Columns (1) and (2) use a bandwidth of \$30,000, while columns (3) and (4) use a bandwidth of \$150,000. The dependent variables are defined as follows: T_{2020} represents the tax amount in dollars, and P^d_{2020} is an indicator variable that takes the value 100 if the owner filed a direct protest in 2020 and 0 otherwise.

Table A.4: Randomization Balance Test: Field Experiment

		By Letter Type			
	(1) All	(2) No Letter	(3) Basic Aid	(4) Extra Aid	(5) P-value
Home Value ($1,000s)	343.910	345.253	342.616	343.700	0.637
	(1.148)	(1.982)	(1.960)	(2.014)	
Number of Bedrooms	3.305	3.307	3.304	3.304	0.781
	(0.002)	(0.004)	(0.004)	(0.004)	
Property Tax Amount ($1,000s)	7.166	7.188	7.162	7.145	0.748
	(0.023)	(0.039)	(0.040)	(0.040)	
Property Tax Rate (%)	2.103	2.104	2.106	2.099	0.239
	(0.002)	(0.003)	(0.003)	(0.003)	
Owner-Protest in 2019 (%)	5.954	6.135	5.833	5.874	0.279
	(0.084)	(0.143)	(0.148)	(0.148)	
Agent-Protest in 2019 (%)	4.642	4.721	4.610	4.586	0.731
	(0.075)	(0.127)	(0.133)	(0.131)	
2020 Homestead Exemption (%)	83.809	83.896	83.592	83.926	0.529
	(0.132)	(0.219)	(0.234)	(0.231)	
Observations	78,462	28,068	25,012	25,382	

Notes: Average pre-treatment (i.e., before the start of letter delivery) characteristics of subjects, with standard errors in parentheses. Column (1) corresponds to the entire field experiment sample. Columns (2)–(4) break down that sample into households assigned to no letter, basic aid letter and extra aid letter, respectively. Column (5) reports the p-value of the test of equal means across the three treatment groups. *Home Value* is the proposed assessment value; *Property Tax Amount* is the estimated amount of property taxes based on the proposed assessment; *Property Tax Rate* is the ratio of *Property Tax Amount* over *Home Value*; *Owner-Protest in 2019* and *Agent-Protest in 2019* indicates whether the subject protested directly or through an agent, respectively; *2020 Homestead Exemption* indicates an effective homestead exemption.

Table A.5: Survey Response Date Versus Letter Receipt Timing

		By Response Date	
	(1) All	(2) Week 1	(3) Week 2+
Today	581	468	113
	(30.8%)	(0.5%)	(0.1%)
Yesterday	263	217	46
	(13.9%)	(0.2%)	(0.1%)
This week	471	276	195
	(24.9%)	(0.3%)	(0.2%)
More than a week ago	573	56	517
	(30.3%)	(0.1%)	(0.6%)
Observations	1,888	1,017	871

Notes: This table shows the frequency of each response to the question from the survey, "When did you receive the letter that included the link to this survey?" Respondents could select from the following responses: "Today", "Yesterday", "This week", and "More than a week ago". Column (1) corresponds to all respondents from the survey. Columns (2)–(3) break down that sample into households that responded during the first week (from May 21st through May 27th) and households who responded after the first week (i.e., after May 27th), respectively.

Table A.6: Spillover Effects of Letters on Neighbors' Direct Protests

	(1) P^d_{2020}	(2) P^d_{2020}	(3) P^d_{2020}	(4) P^d_{2019}	(5) P^d_{2019}	(6) P^d_{2019}
Own Letter	2.661***	2.660***	2.636***	-0.282*	-0.281*	-0.310
	(0.213)	(0.213)	(0.353)	(0.171)	(0.171)	(0.281)
Peer Letter		-0.317			0.290	
		(0.339)			(0.258)	
(Own Letter = 1) * Peer Letter			-0.304			0.305
			(0.383)			(0.284)
(Own Letter = 0) * Peer Letter			-0.340			0.262
			(0.428)			(0.348)
Mean Outcome	10.35	10.35	10.35	5.95	5.95	5.95
Std. Dev. Outcome	30.46	30.46	30.46	23.66	23.66	23.66
% (Own Letter = 1)	64.23	64.23	64.23	64.23	64.23	64.23
% (Peer Letter = 1)	65.70	65.70	65.70	65.70	65.70	65.70
Observations	78,462	78,462	78,462	78,462	78,462	78,462

Notes: Significant at *10%, **5%, ***1%. Robust standard errors in parentheses. Each column presents results from a different regression that follows the specification presented in equation (A.6) from Section A.5.2. The dependent variables P^d_{2020} and P^d_{2019} are indicator variables that take the value 100 if the owner filed a direct protest in 2020 and 2019, respectively, and take the value 0 otherwise. The variable $Own\ Letter_i$ is an indicator that takes the value 1 if household i was mailed either the basic aid letter or extra aid letter and 0 otherwise. The variable $Peer\ Letter_i$ is an indicator variable that takes the value 1 if at least one of household i's five closest nearest neighbors received a letter and 0 otherwise.

Table A.7: Effects of the Two Types of Letters on the Probability of Protesting: Subsample of White Households

	(1) P^d_{2020}	(2) P^d_{2019}	(3) P^{agent}_{2020}	(4) P^{all}_{2020}	(5) P^{online}_{2020}	(6) P^{mail}_{2020}	(7) P^{won}_{2020}	(8) ΔMV^d_{2020}	(9) ΔT^d_{2020}	(10) P^d_{2020}	(11) P^d_{2020}	(12) SO_{2020}
Basic Aid Letter[(i)]	1.657***	-0.062	-0.108	1.549***	1.512***	0.145	1.054***	0.060*	0.031	1.639***	1.626***	0.914
	(0.397)	(0.216)	(0.317)	(0.460)	(0.372)	(0.164)	(0.361)	(0.031)	(0.026)	(0.501)	(0.585)	(1.047)
Extra Aid Letter[(ii)]	4.051***	-0.035	-0.481	3.570***	3.916***	0.136	2.891***	0.151***	0.096***	3.579***	4.452***	13.063***
	(0.412)	(0.217)	(0.311)	(0.467)	(0.389)	(0.163)	(0.374)	(0.031)	(0.027)	(0.527)	(0.604)	(1.302)
P-value (i)=(ii)	<0.001	0.903	0.239	<0.001	<0.001	0.957	<0.001	0.005	0.019	0.001	<0.001	<0.001
Subsample										I	II	
Mean Outcome (No Letter)	9.96	7.46	8.73	18.69	8.44	1.53	8.14	0.56	0.40	6.26	12.89	3.68
Std. Dev. Outcome (No Letter)	29.95	26.27	28.23	38.99	27.80	12.26	27.34	2.33	2.01	24.22	33.51	18.83
Observations	34,567	34,567	34,567	34,567	34,567	34,567	34,567	34,567	34,567	15,259	19,308	2,731

Notes: Significant at *10%, **5%, ***1%. Robust standard errors in parentheses. This table contains subjects from the field experiment sample that the ethnicity algorithm classified as White. Each column presents results from a different regression with two main independent variables: *Basic Aid Letter* is an indicator variable that takes the value 1 if the subject was randomly chosen to receive a basic aid letter and *Extra Aid Letter* is an indicator variable that takes the value 1 if the subject was randomly chosen to receive an extra aid letter. The omitted category is comprised by subjects who were randomly chosen not to receive a letter. The regressions in this table include the following controls: the proposed value in levels and its annual growth, dummies for multiple owners, school and special districts, number of years since the last protest, a dummy for homestead status, and for each year since 2015, a dummy indicating if the household protested in that year and the outcome of the protest (if any) as a percent-reduction in the market value. The dependent variables are defined as follows: P^d_{2020} is an indicator variable that takes the value 100 if the owner filed a direct protest in 2020 and 0 otherwise; P^d_{2019} is an indicator variable that takes the value 100 if the owner filed a direct protest in 2019 and 0 otherwise; P^{agent}_{2020} indicates a protest through an agent in 2020; P^{all}_{2020} indicates any type of protest (direct or agent); P^{online}_{2020} indicates the household filed a direct protest online; P^{mail}_{2020} indicates if the household filed a direct protest by mail; P^{won}_{2020} indicates if a direct protest resulted in a reduction in the market value; ΔMV^d_{2020} is the percentage reduction in the market value due to protesting, which by construction takes the value 0 if the household did not protest or if the protest was unsuccessful; ΔT^d_{2020} is the estimated percentage reduction in the tax amount due to protesting; SO_{2020} is the "suggested opinion" defined for the subsample that protested directly online and provided an opinion of value, and it takes the value 100 if the subject provided an opinion of value within half a percentage point of the value we selected for their extra aid message. Column (10) corresponds to the sample who were not mailed an official notification from the DCAD. Column (11) corresponds to the sample who were mailed such a notification.

Table A.8: Effects of the Two Types of Letters on the Probability of Protesting: Subsample of Hispanic Households

	(1) P^d_{2020}	(2) P^d_{2019}	(3) P^{agent}_{2020}	(4) P^{all}_{2020}	(5) P^{online}_{2020}	(6) P^{mail}_{2020}	(7) P^{won}_{2020}	(8) ΔMV^d_{2020}	(9) ΔT^d_{2020}	(10) P^d_{2020}	(11) P^d_{2020}	(12) SO_{2020}
Basic Aid Letter[(i)]	1.255***	-0.036	-0.137	1.119***	1.023***	0.233	0.792**	0.077**	0.040	1.506**	1.099**	-0.504
	(0.394)	(0.200)	(0.227)	(0.430)	(0.352)	(0.195)	(0.336)	(0.032)	(0.025)	(0.655)	(0.486)	(1.779)
Extra Aid Letter[(ii)]	2.102***	-0.078	0.036	2.139***	1.830***	0.272	1.681***	0.126***	0.074***	1.446**	2.348***	19.521***
	(0.403)	(0.197)	(0.228)	(0.440)	(0.362)	(0.195)	(0.349)	(0.033)	(0.026)	(0.652)	(0.501)	(2.673)
P-value (i)=(ii)	0.050	0.833	0.458	0.029	0.038	0.850	0.017	0.162	0.202	0.932	0.020	<0.001
Subsample										I	II	
Mean Outcome (No Letter)	5.75	3.39	2.39	8.14	4.45	1.30	4.13	0.31	0.19	4.48	6.31	3.78
Std. Dev. Outcome (No Letter)	23.29	18.11	15.26	27.34	20.63	11.33	19.91	1.91	1.46	20.69	24.32	19.12
Observations	21,607	21,607	21,607	21,607	21,607	21,607	21,607	21,607	21,607	6,610	14,997	819

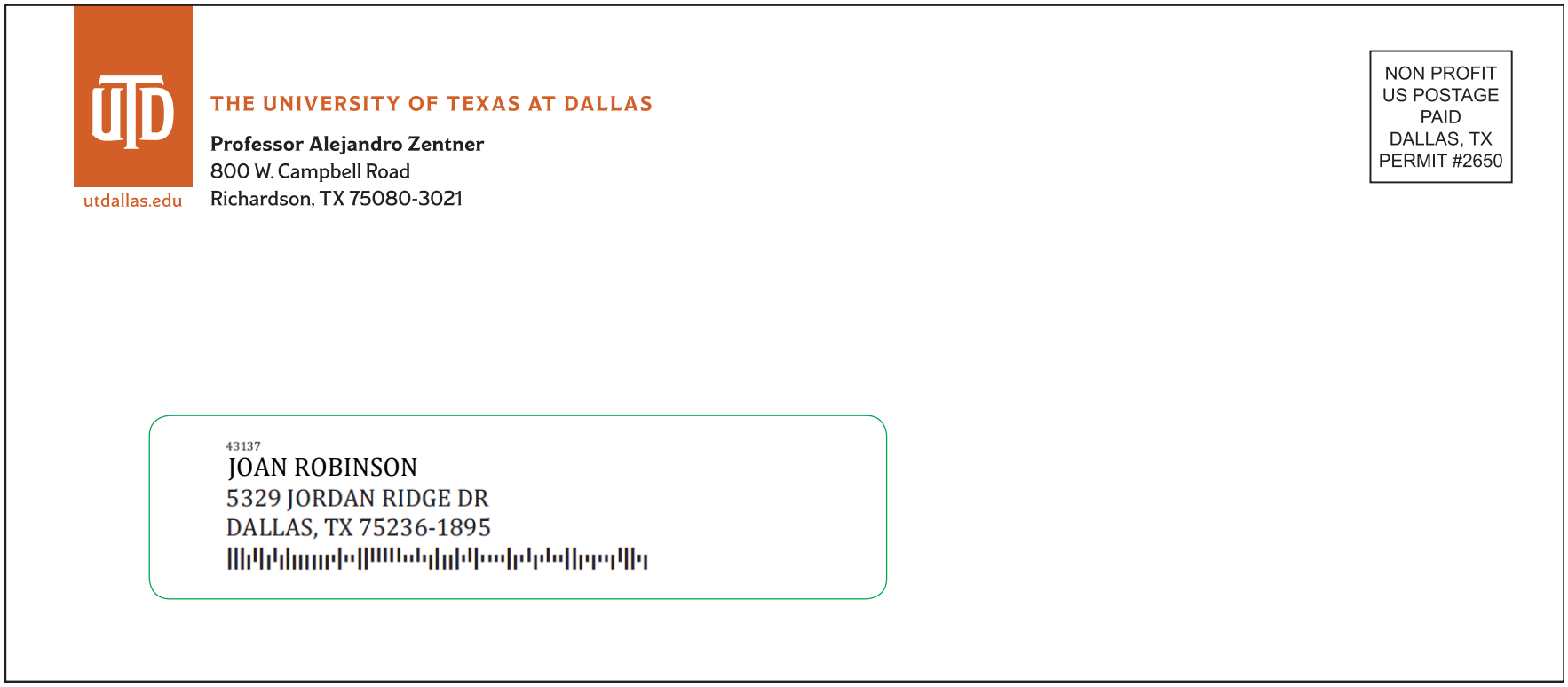
Notes: Significant at *10%, **5%, ***1%. Robust standard errors in parentheses. This table contains subjects from the field experiment sample that the ethnicity algorithm classified as Hispanic. Each column presents results from a different regression with two main independent variables: *Basic Aid Letter* is an indicator variable that takes the value 1 if the subject was randomly chosen to receive a basic aid letter and *Extra Aid Letter* is an indicator variable that takes the value 1 if the subject was randomly chosen to receive an extra aid letter. The omitted category is comprised by subjects who were randomly chosen not to receive a letter. The regressions in this table include the following controls: the proposed value in levels and its annual growth, dummies for multiple owners, school and special districts, number of years since the last protest, a dummy for homestead status, and for each year since 2015, a dummy indicating if the household protested in that year and the outcome of the protest (if any) as a percent-reduction in the market value. The dependent variables are defined as follows: P^d_{2020} is an indicator variable that takes the value 100 if the owner filed a direct protest in 2020 and 0 otherwise; P^d_{2019} is an indicator variable that takes the value 100 if the owner filed a direct protest in 2019 and 0 otherwise; P^{agent}_{2020} indicates a protest through an agent in 2020; P^{all}_{2020} indicates any type of protest (direct or agent); P^{online}_{2020} indicates the household filed a direct protest online; P^{mail}_{2020} indicates if the household filed a direct protest by mail; P^{won}_{2020} indicates if a direct protest resulted in a reduction in the market value; ΔMV^d_{2020} is the percentage reduction in the market value due to protesting, which by construction takes the value 0 if the household did not protest or if the protest was unsuccessful; ΔT^d_{2020} is the estimated percentage reduction in the tax amount due to protesting; SO_{2020} is the "suggested opinion" defined for the subsample that protested directly online and provided an opinion of value, and it takes the value 100 if the subject provided an opinion of value within half a percentage point of the value we selected for their extra aid message. Column (10) corresponds to the sample who were not mailed an official notification from the DCAD. Column (11) corresponds to the sample who were mailed such a notification.

Table A.9: Effects of the Two Types of Letters on the Probability of Protesting Directly and Tax Savings from Direct Protests, by Home Value and Race

	Direct Protest Rate (pp)			Tax Savings Rate (pp)		
	(1) Control	(2) Basic Aid	(3) Extra Aid	(4) Control	(5) Basic Aid	(6) Extra Aid
Panel A. By Home Value						
$\geq \$250,000$	11.284	13.409	16.044	0.482	0.537	0.639
	(0.267)	(0.302)	(0.324)	(0.019)	(0.019)	(0.021)
< $250,000	6.058	7.275	8.212	0.179	0.182	0.196
	(0.201)	(0.234)	(0.245)	(0.012)	(0.013)	(0.013)
Diff. Above - Below $250,000	5.226	6.134	7.832	0.303	0.355	0.442
Diff. p-value	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Observations	28,068	25,012	25,382	28,068	25,012	25,382
Panel B. White Vs. Hispanic Households						
White	9.963	11.579	14.027	0.403	0.432	0.500
	(0.271)	(0.305)	(0.326)	(0.018)	(0.019)	(0.020)
Hispanic	5.753	7.002	7.806	0.191	0.230	0.264
	(0.263)	(0.309)	(0.322)	(0.016)	(0.019)	(0.020)
Diff. White - Hispanic	4.210	4.576	6.221	0.212	0.202	0.236
Diff. p-value	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Observations	20,094	17,789	18,291	20,094	17,789	18,291

Notes: Robust standard errors in parentheses. Average direct protest rates (columns (1) to (3)) and tax savings from direct protest rates (columns (4) to (6)) for households in the field experiment sample. The control group is comprised of subjects who were randomly chosen not to receive a letter. The basic aid group contains subjects that were randomly chosen to receive a basic aid letter. The extra aid group contains subjects that were randomly chosen to receive an extra aid letter. "Direct Protest Rate" refers to households that filed a protest directly, while "Tax Savings" refers to households' estimated percentage reduction in the tax amount due to protesting directly in 2020. Panel A contains rows showing mean protest and tax savings rates for households with values above or below $250,000 (corresponding approximately to the median home value), as well as the differences in variables between these home value groups, while panel B contains rows showing mean protest and tax savings rates for Whites and Hispanics, along with the differences in these variables between these races. Difference p-values shown in brackets.

B Sample Envelope



C Sample of Full Letter

THE UNIVERSITY OF TEXAS AT DALLAS
Naveen Jindal School of Management

May 15th, 2020

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. **You can lower your tax burden by protesting the taxable value assessment of your property**. We want to share information that we hope will be useful.

Some people may choose to protest because they feel they are paying more than their fair share. Find below some information about the estimated 2020 taxes for your home at 5329 Jordan Ridge D (Dallas, TX) in Dallas County*:*

	YOUR HOME	**AVERAGE DALLAS HOME**
Proposed Value	*$174,810*	*$294,846*
Estimated Tax Amount	*$3,057*	*$5,916*
Estimated Tax Rate	*1.75%*	*2.01%*

Source: *Data provided by Dallas Central Appraisal District (CAD). Proposed Value is Dallas CAD's estimate of the home's market value as of January 1st, 2020. Estimated Tax Amount is our estimate of taxes due this year using the latest tax rates available (some exemptions might not be included). Estimated Tax Rate is the estimated tax amount divided by Proposed Value. Average Dallas Home values are based on all single-family homes in Dallas County, excluding condos, townhomes, and mobile homes.*

The deadline to protest is June 15th, 2020. You can fill out a short form online or mail it in. You can find instructions on how to do this on the study's website:

https://www.utdallas.edu/taxproject/

If you would like to help us with our study, we kindly ask you fill out the following confidential survey. It only takes a couple of minutes, and we would greatly appreciate your participation:

Visit http://www.utdallas.edu/taxsurvey/ and enter validation code **AAFOGD**

800 W. Campbell Road
Richardson, TX 75080

Website: https://www.utdallas.edu/taxproject/

Please recycle

If you'd like to file a protest, it 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.

When you protest you need to provide an argument in a few sentences. For example, you may argue that the appraised market value is too high. In that case, you could use the following:

☑ Value is over market value Opinion of value: $160,000

And remember to attach a separate page (or file, if protesting online) with your argument:

> I found a home that is similar to mine but was recently sold for less than my home's appraised market value. The property located at 5148 Ronryan Rd (Dallas, TX) is 0.29 miles away from my home, and has the same number of bedrooms and a similar square footage. That property was sold on 10/31/2019 for $160,000.

You can find information about this sale by searching for the property's address on Zillow.com or Redfin.com. On these websites you can find other comparable properties to support your protest. You can also protest based on the appraised market values of comparable properties, which can be found on www.dallascad.org/SearchAddr.aspx.

Your household was randomly chosen to receive this letter. *We will not send you any more letters in the future.* If you have any questions about the study, you can find contact information on the study's website.

Thank you for your attention!

Alejandro Zentner
Associate Professor
University of Texas at Dallas

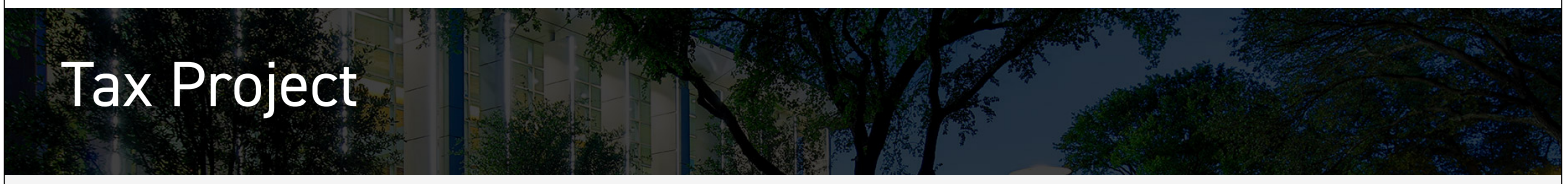
43137
DOLORES M MORENO
5329 JORDAN RIDGE DR
DALLAS, TX 75236-1895

D Project's Website

The University of Texas at Dallas GALAXY ELEARNING DIRECTORY MAPS

UTD Tax Project

Search UT Dallas



Tax Project Home

Welcome to the Tax Project's homepage!

is site provides information on how to lower your property tax burden by ling a residential property tax protest. If you received our letter and would like to help us, we kindly ask you to complete our two-minute survey:

Complete a Brief Survey

If you would like more information on how to le a property tax protest (including a step-by-step walkthrough), click on one of the following links:

Instructions for Filing a Protest Online

Instructions for Filing a Protest by Mail

Remember that the **deadline for protesting the Dallas County's proposed market value for your property is June 15th, 2020.**

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. 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
Office: JSOM 3.206

The University of Texas at Dallas GALAXY ELEARNING DIRECTORY MAPS

Tax Project

Search UT Dallas

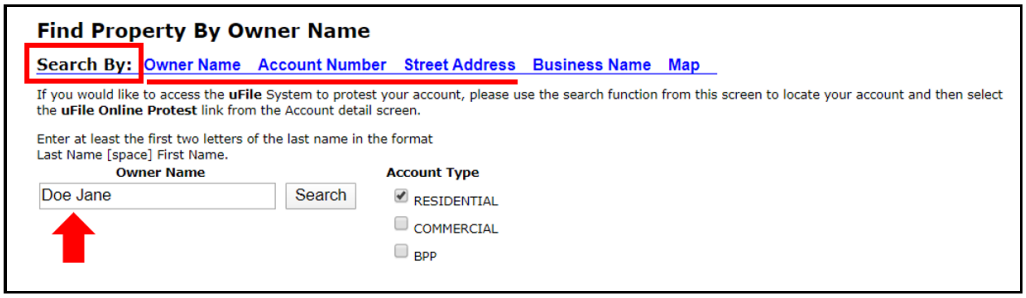
Walkthrough for Filing a Protest Online

Tax Project Home » Walkthrough for Filing a Protest Online

To file an online (uFile) protest related to your property in Dallas County, simply follow the steps below. You only need your property address or your name (account number not required).

Step 1. Enter the following URL into your internet browser. This opens the Dallas CAD Property Search webpage. http://www.dallascad.org/SearchOwner.aspx

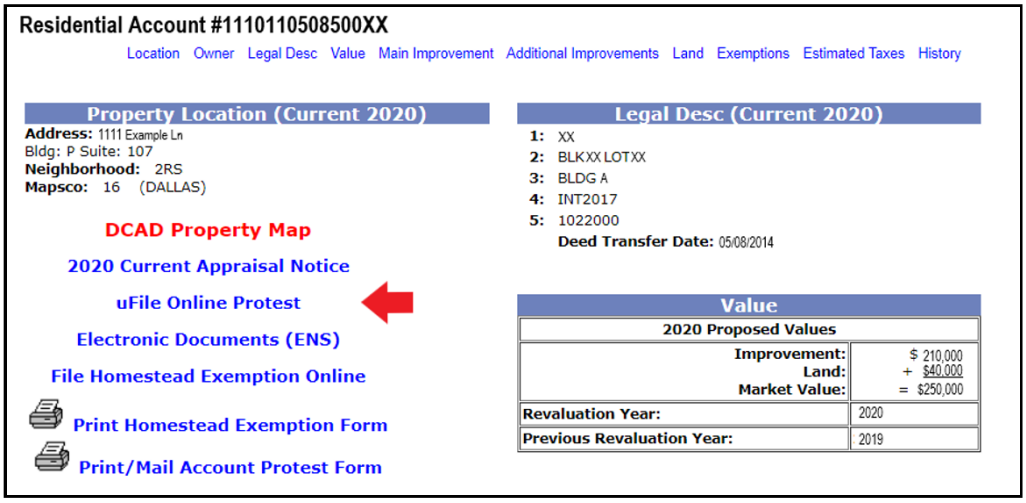
Step 2. Click the link at the top of the webpage to choose how you would like to search for your property. The options include by "Owner Name", "Account Number", or "Street Address". "Owner Name" searches must be done with your *last name* first.



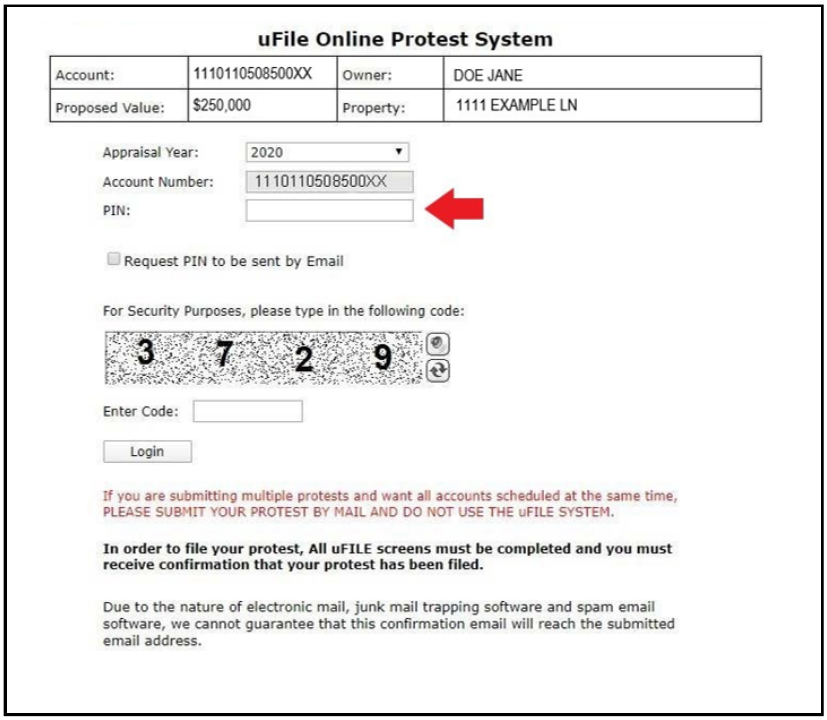
Step 3. Select your property from the results by clicking on your address.

< PREV matches 1 - 1 of 1 properties. NEXT >					Page 1 of 1
#	Property Address	City	Owner Name / Business Name	Total Value	Type
1	1111 Example Ln	RICHARDSON	DOE JANE	$250,000	RESIDENTIAL
< PREV matches 1 - 1 of 1 properties. NEXT >					Page 1 of 1

Step 4. You are now on your property's "Residential Account" page. To access the uFile Online Protest system for your property, click the link on the left titled "uFile Online Protest".



Step 5. This brings up the uFile Online Protest System webpage. To access your account, enter the PIN number from the top left corner of the 2020 Notice of Appraised Value that you received in the mail (under the large "@" symbol) into the box labeled "PIN". To finish on this page, enter the large security code shown on the webpage into the box labeled "Enter code", then click "Login". **If you did not receive your 2020 Notice of Appraised Value in the mail (or you lost the letter)**, you can request for your PIN to be sent **instantly** to your email (the online version of the Notice of Appraised Value does not have this PIN). To do this, simply click the box next to "Request PIN to be sent by Email". If you do not receive an email from Dallas CAD in your inbox within two minutes, check your spam or junk mail folders.



uFile Online Protest System

Account:	1110110508500XX	Owner:	DOE JANE
Proposed Value:	$250,000	Property:	1111 EXAMPLE LN

Appraisal Year: 2020

Account Number: 1110110508500XX

PIN:

Request PIN to be sent by Email

For Security Purposes, please type in the following code:

3 7 2 9

Enter Code:

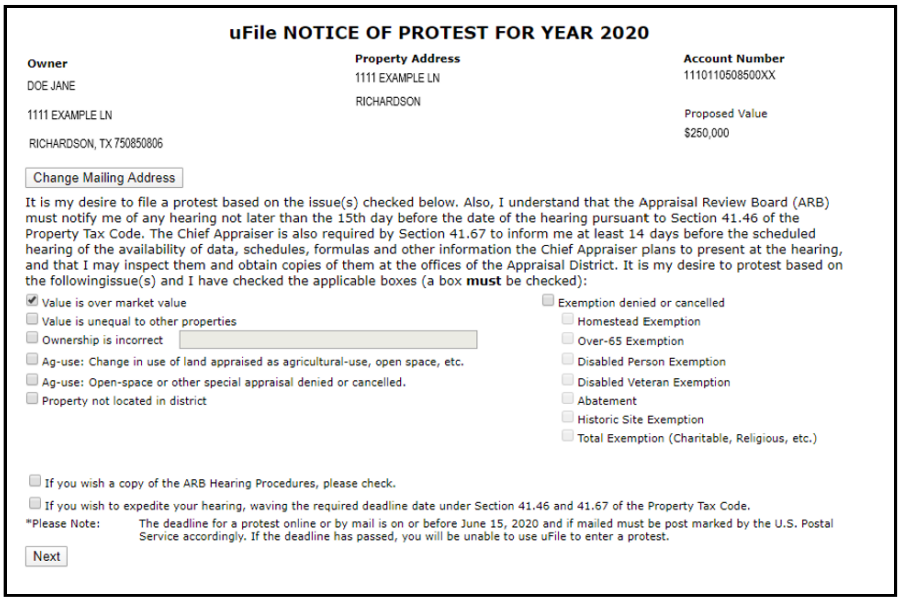
Login

If you are submitting multiple protests and want all accounts scheduled at the same time, PLEASE SUBMIT YOUR PROTEST BY MAIL AND DO NOT USE THE uFILE SYSTEM.

In order to file your protest, All uFILE screens must be completed and you must receive confirmation that your protest has been filed.

Due to the nature of electronic mail, junk mail trapping software and spam email software, we cannot guarantee that this confirmation email will reach the submitted email address.

Step 6. Now, you will see you are on the "uFile Notice of Protest for Year 2020" page. In the middle of the page on the left and right are boxes you may check to select the reason(s) for your protest. These are explained below. After you select your reason for protest, you may click "Next" at the bottom.



uFile NOTICE OF PROTEST FOR YEAR 2020

Owner
DOE JANE
1111 EXAMPLE LN
RICHARDSON, TX 750850806

Property Address
1111 EXAMPLE LN
RICHARDSON

Account Number
1110110508500XX

Proposed Value
$250,000

Change Mailing Address

It is my desire to file a protest based on the issue(s) checked below. Also, I understand that the Appraisal Review Board (ARB) must notify me of any hearing not later than the 15th day before the date of the hearing pursuant to Section 41.46 of the Property Tax Code. The Chief Appraiser is also required by Section 41.67 to inform me at least 14 days before the scheduled hearing of the availability of data, schedules, formulas and other information the Chief Appraiser plans to present at the hearing, and that I may inspect them and obtain copies of them at the offices of the Appraisal District. It is my desire to protest based on the followingissue(s) and I have checked the applicable boxes (a box **must** be checked):

- [x] Value is over market value
- [ ] Value is unequal to other properties
- [ ] Ownership is incorrect
- [ ] Ag-use: Change in use of land appraised as agricultural-use, open space, etc.
- [ ] Ag-use: Open-space or other special appraisal denied or cancelled.
- [ ] Property not located in district
- [ ] Exemption denied or cancelled
  - [ ] Homestead Exemption
  - [ ] Over-65 Exemption
  - [ ] Disabled Person Exemption
  - [ ] Disabled Veteran Exemption
  - [ ] Abatement
  - [ ] Historic Site Exemption
  - [ ] Total Exemption (Charitable, Religious, etc.)

- [ ] If you wish a copy of the ARB Hearing Procedures, please check.
- [ ] If you wish to expedite your hearing, waving the required deadline date under Section 41.46 and 41.67 of the Property Tax Code.

*Please Note: The deadline for a protest online or by mail is on or before June 15, 2020 and if mailed must be post marked by the U.S. Postal Service accordingly. If the deadline has passed, you will be unable to use uFile to enter a protest.

Next

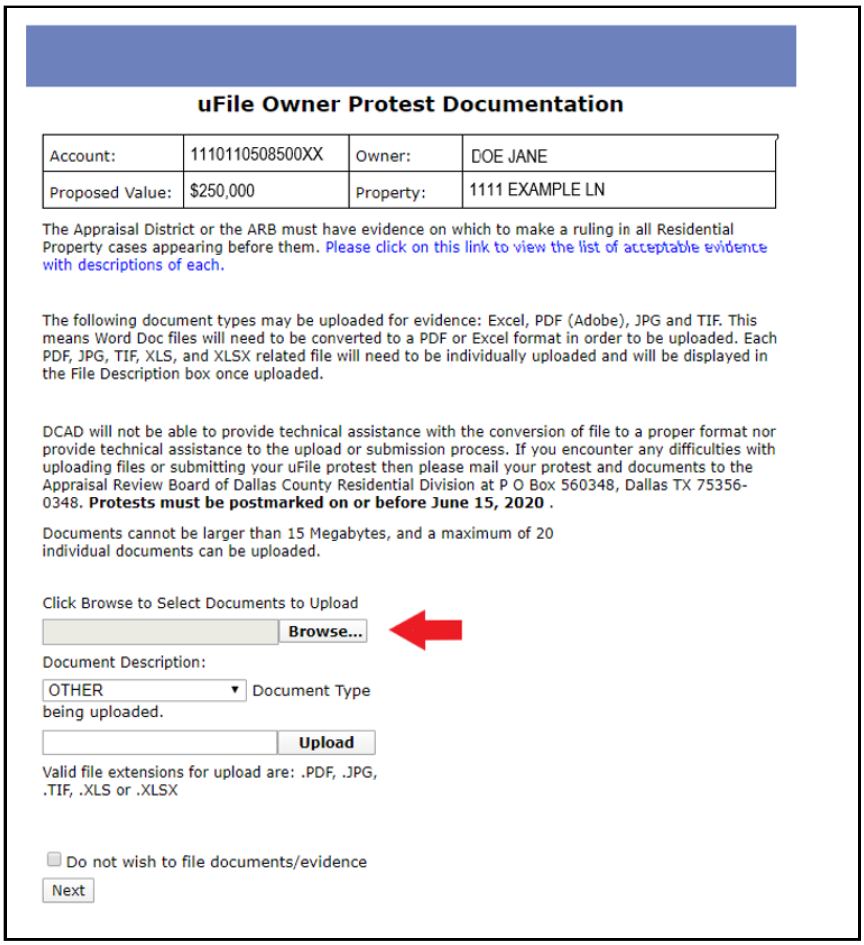
Some of the most common reasons for protesting include:

Value is over market value: DCAD's proposed market value for your home is higher than the recent final selling price of comparable homes. If this applies to your protest, you should mark the box on the form, "Value is over market value."

Value is unequal compared with other properties: DCAD's proposed market value for your property is higher than the market values DCAD proposed for other houses that are comparable to yours. If this applies to your protest, you should mark the box on the form, "Value is unequal to other properties."

Errors in DCAD data: For example, DCAD may be overestimating your home's value if the number of bedrooms or other characteristics are incorrect on their website. It is possible more than one of these reasons applies for your protest, in which case you should check all that apply.

Step 7. Next, you will see the page where you may upload any supporting evidence you would like the county to consider for your protest. This may be a simple hand-written explanation that you can take a photo of (in .JPG format), an explanation you typed into an Excel spreadsheet (.XLS format), or one of the other formats listed on the site. If you wish to receive an informal settlement offer from the county, you must upload a document of some sort. If you do not wish to receive an informal settlement offer, you may simply click "Next".



uFile Owner Protest Documentation

Account:	1110110508500XX	Owner:	DOE JANE
Proposed Value:	$250,000	Property:	1111 EXAMPLE LN

The Appraisal District or the ARB must have evidence on which to make a ruling in all Residential Property cases appearing before them. Please click on this link to view the list of acceptable evidence with descriptions of each.

The following document types may be uploaded for evidence: Excel, PDF (Adobe), JPG and TIF. This means Word Doc files will need to be converted to a PDF or Excel format in order to be uploaded. Each PDF, JPG, TIF, XLS, and XLSX related file will need to be individually uploaded and will be displayed in the File Description box once uploaded.

DCAD will not be able to provide technical assistance with the conversion of file to a proper format nor provide technical assistance to the upload or submission process. If you encounter any difficulties with uploading files or submitting your uFile protest then please mail your protest and documents to the Appraisal Review Board of Dallas County Residential Division at P O Box 560348, Dallas TX 75356-0348. **Protests must be postmarked on or before June 15, 2020** .

Documents cannot be larger than 15 Megabytes, and a maximum of 20 individual documents can be uploaded.

Click Browse to Select Documents to Upload

Browse...

Document Description:

OTHER Document Type being uploaded.

Upload

Valid file extensions for upload are: .PDF, .JPG, .TIF, .XLS or .XLSX

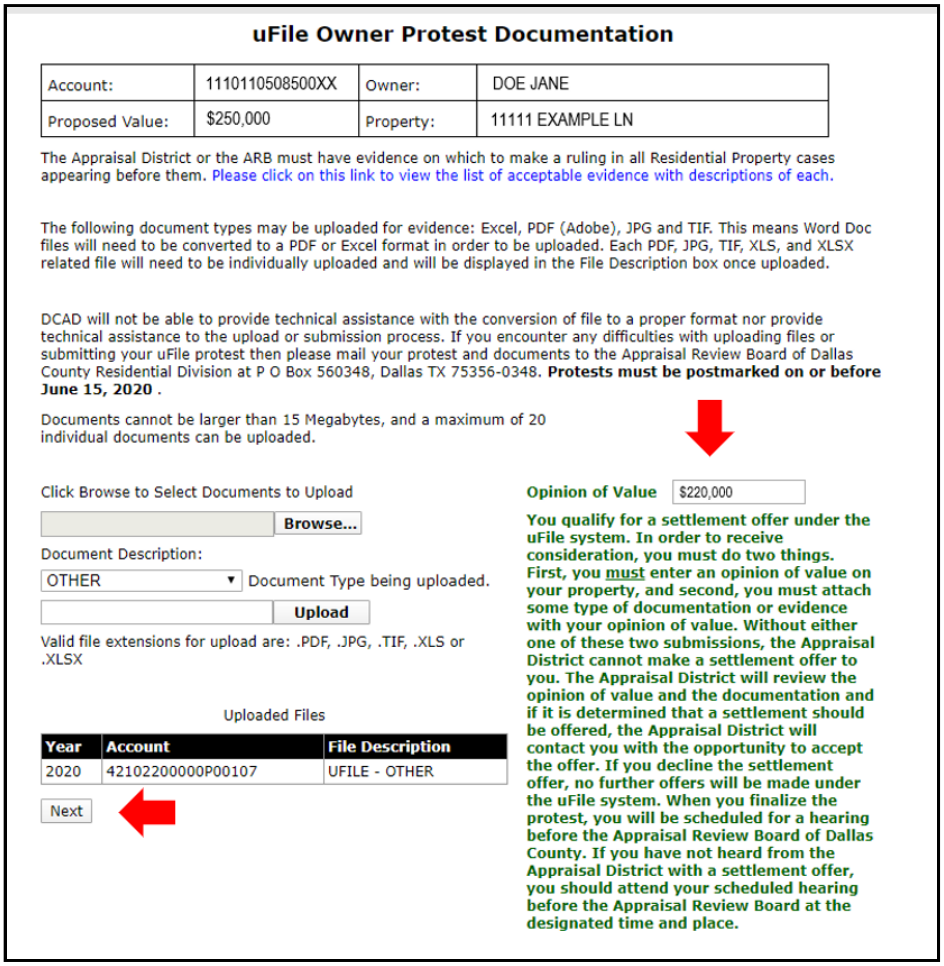
Do not wish to file documents/evidence

Next

To upload a document you would like considered by the county for your protest, first click the "Browse" button, then locate the document on your computer. Next, choose the description that you believe best describes your document from the dropdown menu labeled "Document Type". Finally, click straight on "Upload", ignoring the box next to it. **You may repeat this for each document you would like to upload.**

After the first document is uploaded, a green paragraph will appear on the right side of the screen. At the top of the green paragraph, you should enter your "opinion of value", which the county will consider when it makes its informal settlement offer.

You must include your "Opinion of Value" on your property to qualify for a settlement offer. Enter the value you believe your property was actually worth as of January 1st, 2020 (this is the date the county's proposed value is for). After you finish uploading any documents you wish, click "Next" to proceed to the last step.



uFile Owner Protest Documentation

Account:	1110110508500XX	Owner:	DOE JANE
Proposed Value:	$250,000	Property:	11111 EXAMPLE LN

The Appraisal District or the ARB must have evidence on which to make a ruling in all Residential Property cases appearing before them. Please click on this link to view the list of acceptable evidence with descriptions of each.

The following document types may be uploaded for evidence: Excel, PDF (Adobe), JPG and TIF. This means Word Doc files will need to be converted to a PDF or Excel format in order to be uploaded. Each PDF, JPG, TIF, XLS, and XLSX related file will need to be individually uploaded and will be displayed in the File Description box once uploaded.

DCAD will not be able to provide technical assistance with the conversion of file to a proper format nor provide technical assistance to the upload or submission process. If you encounter any difficulties with uploading files or submitting your uFile protest then please mail your protest and documents to the Appraisal Review Board of Dallas County Residential Division at P O Box 560348, Dallas TX 75356-0348. **Protests must be postmarked on or before June 15, 2020** .

Documents cannot be larger than 15 Megabytes, and a maximum of 20 individual documents can be uploaded.

Click Browse to Select Documents to Upload

Browse...

Document Description:

OTHER Document Type being uploaded.

Upload

Valid file extensions for upload are: .PDF, .JPG, .TIF, .XLS or .XLSX

Uploaded Files

Year	Account	File Description
2020	42102200000P00107	UFILE - OTHER

Next

Opinion of Value $220,000

You qualify for a settlement offer under the uFile system. In order to receive consideration, you must do two things. First, you must enter an opinion of value on your property, and second, you must attach some type of documentation or evidence with your opinion of value. Without either one of these two submissions, the Appraisal District cannot make a settlement offer to you. The Appraisal District will review the opinion of value and the documentation and if it is determined that a settlement should be offered, the Appraisal District will contact you with the opportunity to accept the offer. If you decline the settlement offer, no further offers will be made under the uFile system. When you finalize the protest, you will be scheduled for a hearing before the Appraisal Review Board of Dallas County. If you have not heard from the Appraisal District with a settlement offer, you should attend your scheduled hearing before the Appraisal Review Board at the designated time and place.

Step 8. Final step: On the page that appears, enter your email address, phone number, and name in the boxes provided. These boxes automatically capitalize whatever you type, so do not worry about this. Click "File Protest" when you are ready to submit your protest. A confirmation email will be sent to your email address.

uFile File Protest Screen

Account:	1110110508500XX	Owner:	DOE JANE
Proposed Value:	$250,000	Property:	1111 EXAMPLE LN

Email Address: JANE_DOE@GMAIL.COM *

Confirm Email Address: JANE_DOE@GMAIL.COM *

Phone Number: 97229840**

Enter Your Name: JANE DOE *

* Denotes Required Field

File Protest

You are eligible for a settlement offer. The Appraisal District will review your opinion of value and documentation submitted. Should it be determined that a settlement should be offered, the Appraisal District will contact you with the opportunity to accept. When you finalize the protest, you will be scheduled for a hearing before the Appraisal Review Board of Dallas County. If you have not heard from us with a settlement offer, you should attend your hearing before the Appraisal Review Board at the designated time. You also may visit the Appraisal District and talk to an appraiser prior to the scheduled hearing and try to settle the property value informally.

Due to the nature of electronic mail, junk mail trapping software and spam email software, we cannot guarantee that this confirmation email will reach the submitted email address.

The University of Texas at Dallas GALAXY ELEARNING DIRECTORY MAPS

Tax Project

Search UT Dallas

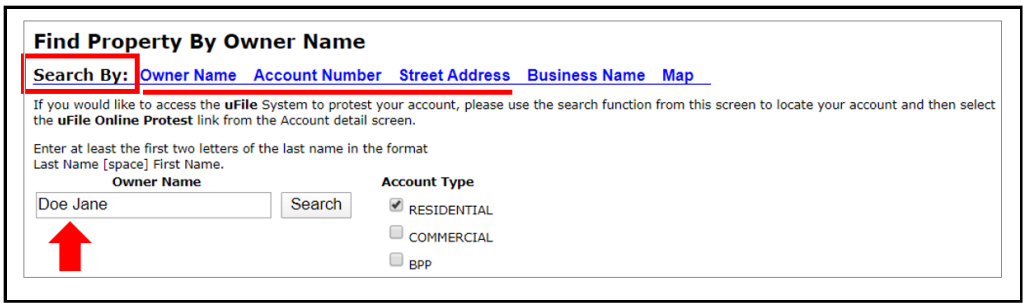
Walkthrough for Filing a Protest by Mail

Tax Project Home » Walkthrough for Filing a Protest by Mail

To file a protest related to your property in Dallas County **by mail**, simply follow the steps below: If you received your 2020 Notice of Appraised Value from the Dallas Central Appraisal District (CAD) in the mail, you may use the protest form provided on the third page and you can skip straight to Step 5. If you do not have or did not receive a 2020 Notice of Appraised Value, follow all of the steps below.

Step 1. To retrieve your property protest form, enter the following URL into your internet browser. This opens the Dallas CAD Property Search webpage. http://www.dallascad.org/SearchOwner.aspx

Step 2. Click the link at the top of the webpage that describes how you would like to search for your property. The options include by "Owner Name", "Account Number", or "Street Address". "Owner Name" searches must be done with your *last name*. You only need your property address or your name (your account number will *not* be necessary).



Step 3. Select your property from the results by clicking on your address.

< PREV matches 1 - 1 of 1 properties. NEXT >					Page 1 of 1
#	Property Address	City	Owner Name / Business Name	Total Value	Type
1	1111 Example Ln	RICHARDSON	DOE JANE	$250,000	RESIDENTIAL
< PREV matches 1 - 1 of 1 properties. NEXT >					Page 1 of 1

Step 4. You are now on your property's "Residential Account" page. To access the protest form for your property, click on either "Print/Mail Account Protest Form" or "2020 Current Appraisal Notice" (the protest form is the third page of the 2020 Current Appraisal Notice). You may print this form to mail in your protest.

Residential Account #1110110508500XX

Location Owner Legal Desc Value Main Improvement Additional Improvements Land Exemptions Estimated Taxes History

Property Location (Current 2020)

Address: 1111 Example Ln
Bldg: P Suite: 107
Neighborhood: 2RS
Mapsco: 16 (DALLAS)

DCAD Property Map

2020 Current Appraisal Notice

uFile Online Protest

Electronic Documents (ENS)

OR

File Homestead Exemption Online

Print Homestead Exemption Form

Print/Mail Account Protest Form

Legal Desc (Current 2020)

1: XX
2: BLK XX LOT XX
3: BLDG A
4: INT2017
5: 1022000
Deed Transfer Date: 05/08/2014

Value

2020 Proposed Values	
Improvement:	$ 210,000
Land:	+ $40,000
Market Value:	= $250,000
Revaluation Year:	2020
Previous Revaluation Year:	2019

Step 5. Once you have your protest form handy, it is time to fill it out. An example protest form is shown below. On your protest form, in the middle of the page on the left and right are boxes you may check to select the reason(s) for your protest.

APPRAISAL REVIEW BOARD OF DALLAS COUNTY
NOTICE OF PROTEST - RESIDENTIAL
TAX YEAR 2020

www.dallascad.org (214) 905-9402

Account Number: 1110110508500XX

JANE DOE
1111 EXAMPLE LN
DALLAS, TX XXXXX-XXXX

Property Address:
1111 EXAMPLE LN
DALLAS

Legal Description:
EXAMPLE
BLK XX LOT XX

Proposed Value: $250,000

Deed Transfer Date:

CHANGE OF ADDRESS: _____

It is my desire to file a protest based on the issue(s) checked below. Also, I understand that the Appraisal Review Board (ARB) must notify me of any hearing not later than the 15th day before the date of the hearing pursuant to §41.46 of the Texas Property Tax Code. At the time your account is scheduled for an ARB hearing, the evidence that the Chief Appraiser will introduce at your hearing will be available on the DCAD website. You may access this evidence on the website by using the property account number and PIN located on your notice of appraised value and hearing notice.

It is my desire to protest based on the following issue(s) and I have checked the applicable boxes:

- [X] Value is over market value
- [ ] Value is unequal compared with other properties
- [ ] Property not located in district
- [ ] Exemption was denied or cancelled (Specify _____)
- [ ] Ownership is incorrect (Specify _____)
- [ ] Ag-Use: Change in use of land appraised as agricultural use, open-space, etc.
- [ ] Ag-Use: Open-Space or other special appraisal denied or cancelled
- [ ] Property should not be taxed in district or in one or more taxing units
- [ ] Other: (Specify _____)

Additional Requests: _____ Opinion of Value: $220,000

If you wish to expedite your hearing by waiving the required deadline date under Section 41.46 of the Texas Property Tax Code, please check the following box: [ ]

Signature of Owner (or Agent) | Date Filed | (Agent Registration No., if applicable)

Jane Doe

Printed Name | Daytime/Cell Phone No. | E-Mail Address

DEADLINE FOR FILING A PROTEST: June 15, 2020

Some of the most common reasons for protesting include:

Value is over market value: DCAD's proposed market value for your home is higher than the recent final selling price of comparable homes. If this applies to your protest, you should mark the box on the form, "Value is over market value."

Value is unequal compared with other properties: DCAD's proposed market value for your property is higher than the market values DCAD proposed for other houses that are comparable to yours. If this applies to your protest, you should mark the box on the form, "Value is unequal to other properties."

Errors in DCAD data: For example, DCAD may be overestimating your home's value if the number of bedrooms or other characteristics are incorrect on their website. It is possible more than one of these protest reasons applies, in which case you should check all that apply.

Step 6. Before you mail your protest, you must include in the envelope any supporting evidence you would like the county to consider for your protest. This may be a simple hand-written explanation. If you wish to receive an informal settlement offer from the county, you must at least include a brief explanation for your protest on a piece of paper in the envelope.

Step 7. On the line marked "Opinion of Value", write the value you believe your property was actually worth as of January 1st, 2020 (this is the date the county's proposed value is for). The county will take your opinion of value into consideration when it makes its informal settlement offer. You must include your "Opinion of Value" on your property to qualify for a settlement offer.

Step 8. Complete the rest of the lines asking for your personal information. **Be sure to provide your signature on the line provided.**

Step 9. Mail your protest to the following address:

Appraisal Review Board of Dallas County
Residential Division
PO Box 560348 Dallas,
TX 75356-0348

Note the envelope must be postmarked by the June 15th, 2020 deadline.

E Sample of Online 2020 Appraisal Notice

DALLAS CENTRAL APPRAISAL DISTRICT
NOTICE OF APPRAISED VALUE - RESIDENTIAL
TAX YEAR 2020

www.dallascad.org (214) 905-9402

Mailing Address:
Residential Division
PO Box 560348
Dallas, TX 75356-0348

Account Number: 008035000N0240000
Ownership:

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

Property Address:
5329 JORDAN RIDGE DR
DALLAS

Legal Description:

Dear Property Owner:

This letter is your official notice of the **2020** proposed property tax appraisal for the account listed above. The Dallas Central Appraisal District (DCAD) appraises all of the property in Dallas County for property tax purposes. State law requires that appraisal districts appraise all taxable property at its fair market value. Your county, city, school district and other local governments use the appraisal in calculating your property taxes. Property taxes support critical services such as schools, police and fire protection, street maintenance and many others.

As of January 1, 2020, the DCAD appraised your real property at:

2020 Market Value:	$174,810
2020 Appraised Capped Value:	$133,428
2020 Estimated Taxes (using last year's tax rates):	$3,057

DO NOT PAY FROM THIS NOTICE. THIS IS NOT A TAX BILL.

Your current year exemptions are: Homestead

The Texas legislature does not set the amount of your local taxes. Your property tax burden is decided by your locally elected officials and all inquiries should be directed to those officials.

The governing body of each taxing jurisdiction decides whether or not taxes on your property will increase. The DCAD only determines the value of the property in accordance with the Texas Constitution and Statutes.

The percentage difference between the 2015 appraised value of $82,850 and the proposed 2020 appraised value is an increase of 61.05% over a 5-year period.

To **PROTEST** the proposed 2020 value or other issues, you must file a protest with the Appraisal Review Board (ARB) by using the online **uFile** system **(preferred method)** or by submitting a written protest (form enclosed).

If you agree with the proposed value, no further action is required.

Deadline for filing a protest: June 15, 2020

Location of ARB hearings: 2949 N. Stemmons Fwy, Dallas, TX 75247

More information about your appraisal and the protest process is on the back of this notice and on the inserts enclosed.

Homestead "Capped" Limitation: The Texas Constitution provides that property with a homestead exemption may not be increased in value more than 10% per year, excluding any new improvements made. This provision takes effect the first year following the year the owner qualified for a homestead. Because of this constitutional limitation, if you received a homestead exemption on this property in the previous year, it will be "**capped**" at the appropriate limit.

052-2193

DALLAS CENTRAL APPRAISAL DISTRICT
NOTICE OF APPRAISED VALUE - RESIDENTIAL
Tax Year 2020
www.dallascad.org

Owner Name: JOAN ROBINSON
Account Number: 008035000N0240000
Property Address: 5329 JORDAN RIDGE DR

CURRENT YEAR 2020	County and School Equalization	City	School	Hospital	College	Special District	Canceled/ Reduced Exemption
Jurisdictions	Dallas County	City of Dallas	Duncanville ISD	Parkland Hospital	Dallas Co Community College		
Market Value - Land	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 35,000		
Market Value - Structure(s)	$ 139,810	$ 139,810	$ 139,810	$ 139,810	$ 139,810		
Market Value	$ 174,810	$ 174,810	$ 174,810	$ 174,810	$ 174,810		
Less Deductions							
Homestead Capped Limitation	$ 41,382	$ 41,382	$ 41,382	$ 41,382	$ 41,382		
Ag-use Value							
Absolute Exemption							
Appraised Value	$ 133,428	$ 133,428	$ 133,428	$ 133,428	$ 133,428		
Less Exemption Amount							
Homestead	$ 26,685	$ 26,685	$ 25,000	$ 26,685	$ 26,685		
Exemption Amount Subtotal	$ 26,685	$ 26,685	$ 25,000	$ 26,685	$ 26,685		
Estimated Taxable Value	$ 106,743	$ 106,743	$ 108,428	$ 106,743	$ 106,743		Total
Last Year's Tax Rate	0.253100	0.776600	1.418300	0.269500	0.124000		2.841500
Estimated Taxes Due*	$ 270	$ 829	$ 1,538	$ 288	$ 132		$ 3,057

PRIOR YEAR 2019	County and School Equalization	City	School	Hospital	College	Special District
Jurisdictions	Dallas County	City of Dallas	Duncanville ISD	Parkland Hospital	Dallas Co Community College	
Market Value - Land	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	
Market Value - Structure(s)	$ 128,090	$ 128,090	$ 128,090	$ 128,090	$ 128,090	
Market Value	$ 153,090	$ 153,090	$ 153,090	$ 153,090	$ 153,090	
Less Deductions						
Homestead Capped Limitation	$ 31,791	$ 31,791	$ 31,791	$ 31,791	$ 31,791	
Ag-use Value						
Absolute Exemption						
Appraised Value	$ 121,299	$ 121,299	$ 121,299	$ 121,299	$ 121,299	
Less Exemption Amount						
Homestead	$ 24,259	$ 24,259	$ 25,000	$ 24,259	$ 24,259	
Exemption Amount Subtotal	$ 24,259	$ 24,259	$ 25,000	$ 24,259	$ 24,259	
Estimated Taxable Value	$ 97,040	$ 97,040	$ 96,299	$ 97,040	$ 97,040	

Tax Ceiling: If you received the Age 65 or Older or the Disabled Person homestead exemption, your school, county, and certain city taxes for this year will not be any higher than they were for the year in which you first received the exemption, unless you have made new improvements to your home. If you improved your property by remodeling or adding an addition, your school, county, and certain city taxes may increase for new improvements. If you are the surviving spouse of a person who was age 65 or older or disabled at death and you were age 55 or older at the time of death, you may retain the school, county, and certain city tax ceilings.

APPRAISAL REVIEW BOARD OF DALLAS COUNTY
NOTICE OF PROTEST - RESIDENTIAL
TAX YEAR 2020

www.dallascad.org (214) 905-9402

Account Number: 008035000N0240000

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

Property Address:
5329 JORDAN RIDGE DR
DALLAS

Legal Description:

Deed Transfer Date:

Proposed Value: $174,810

CHANGE OF ADDRESS: _____

It is my desire to file a protest based on the issue(s) checked below. Also, I understand that the Appraisal Review Board (ARB) must notify me of any hearing not later than the 15th day before the date of the hearing pursuant to §41.46 of the Texas Property Tax Code. At the time your account is scheduled for an ARB hearing, the evidence that the Chief Appraiser will introduce at your hearing will be available on the DCAD website. You may access this evidence on the website by using the property account number and PIN located on your notice of appraised value and hearing notice.

It is my desire to protest based on the following issue(s) and I have checked the applicable boxes:

- ☐ Value is over market value
- ☐ Value is unequal compared with other properties
- ☐ Property not located in district
- ☐ Exemption was denied or cancelled (Specify _____)
- ☐ Ownership is incorrect (Specify _____)
- ☐ Ag-Use: Change in use of land appraised as agricultural use, open-space, etc.
- ☐ Ag-Use: Open-Space or other special appraisal denied or cancelled
- ☐ Property should not be taxed in district or in one or more taxing units
- ☐ Other: (Specify _____)

Additional Requests: _____ Opinion of Value: _____

If you wish to expedite your hearing by waiving the required deadline date under Section 41.46 of the Texas Property Tax Code, please check the following box: ☐

Signature of Owner (or Agent)	Date Filed	(Agent Registration No., if applicable)
Printed Name	Daytime/Cell Phone No.	E-Mail Address

DEADLINE FOR FILING A PROTEST: June 15, 2020

GENERAL INSTRUCTIONS: Pursuant to §41.41 of the Texas Property Tax Code, a property owner has the right to protest certain actions taken by the appraisal district. There are two options to file a protest, 1) use the online **uFile** system, or 2) mail a protest form.

uFile ONLINE PROTEST & SETTLEMENT SYSTEM: The **preferred method** of protesting your property is to use the online **uFile** Protest & Settlement System. You may access the system by searching your account on our website at **www.dallascad.org** and select the link "Online Protest System". For easy access, you may request your individual PIN through this system or use the PIN located at the top left-side of your Notice of Appraised Value. Once you utilize the **uFile** system to protest your property, you may also be eligible to use the settlement program and settle your protest online. **If you file a protest using the online uFile system, please do not file a written or duplicate protest.**

uFile is the preferred method of filing a protest in order to expedite and insure timely delivery of your protest.

PROTEST FORM: This form is for use by a property owner or designated agent who would like the ARB to hear and decide a protest. If you are leasing the property, you are subject to the limitations set forth in Texas Property Tax Code §41.413. Please review the ownership and property information provided on this protest form and make any necessary corrections.

If you wish to mail your protest and supporting documents, the envelope must be postmarked by U.S. Postal Service on or before the deadline.

Appraisal Review Board of Dallas County
Residential Division
PO Box 560348
Dallas, TX 75356-0348

HOW TO SETTLE THE VALUE OF YOUR PROPERTY

Informal Hearing Process: Due to the COVID-19 Pandemic the DCAD will not be holding face to face informal hearings. Please read the insert titled **Health Alert: Dallas Central Appraisal District Operations / uFile Online Protest and Settlement System**. If you are unable to use DCAD's uFile system then please mail in your protest form with your supporting documentation. You can also drop off your protest form and documentation at DCAD's office but you will not be able to discuss your issues with an appraiser in person. You may call the number listed on the Notice of Appraised Value and speak to an appraiser about an individual property. Please understand that we mail thousands of notices at this time. Our phone lines will be very busy. Keep trying. You have several weeks to respond before the deadline noted on the Notice of Appraised Value. You may also write our office at 2949 N. Stemmons Freeway, Dallas, TX 75247-6195, or inquire on our website at **www.dallascad.org**. If you provide supporting documentation with your protest, DCAD will make every effort to have an appraiser contact you prior to your scheduled ARB Hearing. Please make sure you provide an e-mail address and/or daytime phone number on your protest form.

UFILE - PREFERRED METHOD

uFile Online Protest & Settlement System: The preferred method of protesting your property is to use the online **uFile** Protest & Settlement System. You may access the system by searching for your account on our website at **www.dallascad.org** and select the link "Online Protest System". For easy access, you may request your individual PIN through this system or use the PIN located at the top left-side of your Notice of Appraised Value. Requesting a PIN does not constitute filing a uFile protest. You must complete the uFile protest process. Once you utilize the **uFile** system to protest your property, you may also be eligible to use the settlement program and settle your protest online. All uFile protests will eventually be scheduled for an ARB Hearing if the protest issue(s) remain unresolved. Once scheduled for an ARB Hearing, DCAD will post the ARB Hearing Date and Time on your account on our website. The ARB will also mail you an ARB Hearing Notification. **If you file a protest using the online uFile system, please do not file a written or duplicate protest.**

WRITTEN PROTEST

Protest Form: If you choose not to use the **uFile** online system, you may use the protest form provided. You should attach to your protest form any documentation that supports your opinion of value or any other protested issue (reference the Standards of Documentation). **If you are protesting more than one account, be sure to staple or bundle together all protest forms and documents to avoid receiving multiple dates and times for your accounts**.

Useful Information: If you have purchased your property within the last three years, please include, with your protest form, a copy of your closing statement or other official record that validates the purchase price.

Filing Deadlines: While June 15 is the deadline to file a residence homestead protest, a different deadline will apply to you if 1) your notice of appraised value was mailed to you after May 15; 2) your protest concerns a change in use of agricultural, open-space, or timber land; 3) the Appraisal Review Board (ARB) made a change to the appraisal records that adversely affects you and you received notice of the change; 4) the DCAD or the ARB was required by law to send a notice about your property and did not; or 5) you had good cause for missing the June 15 protest filing deadline. Contact the DCAD for questions about your specific protest filing deadline.

Weekends and Holidays: If your deadline falls on a Saturday, Sunday, or legal holiday, it is postponed until midnight of the next business day.

Appraisal Review Board (ARB): Members of the ARB are not employees of the DCAD. They serve as jurors to arbitrate issues brought before them. The Texas Property Tax Code outlines specific duties for the ARB to follow. The goal of the ARB is to ensure that each property owner is given a fair and impartial hearing in the most efficient and timely manner.

Hearing Process and Delivery of Requested Information: Once the Appraisal Review Board (ARB) receives and processes your protest your account will be scheduled for an ARB hearing. Once scheduled for an ARB Hearing, your hearing date and time will be posted on the DCAD website. You will also receive an ARB hearing notice by first class mail with your hearing date, time, and location to appear before the ARB. If you do not receive an ARB hearing notice then please call the DCAD to inquire about your ARB hearing date or check your account on the DCAD website. You may request in writing that your ARB hearing notice be sent to you by certified mail but you may be charged for this request. You can also request your ARB hearing notice to be e-mailed to you if you provide an e-mail address on the protest form and request this in writing. If you would like for the ARB to send your hearing notice by certified mail or you want your hearing notice sent to your e-mail address then please indicate so on the attached Protest Form under Additional Requests. If you do not want your ARB Hearing conducted with only one ARB member please indicate so under additional requests. Prior to your ARB hearing, you may request a copy of the evidence DCAD plans to introduce at the hearing to establish any matter at issue. Before an ARB hearing on a protest or immediately after the hearing begins, you or your agent and the CAD are required to provide each other with a copy of any materials (evidence) intended to be offered or submitted to the ARB at the hearing. Evidence may be submitted for any ARB hearing type either in paper or on a small portable device (such as a CD, USB flash drive or thumb drive) which will be kept by the ARB. Do NOT bring evidence by smart phone. At the time your account is scheduled for an ARB hearing, evidence that the Appraisal District will introduce at your hearing will be available on the DCAD website. You may access this evidence on DCAD's website by using the property account number and PIN located on your notice of appraised value and hearing notice. You may also request this information at the DCAD office.

Telephone Hearings: Due to the COVID-19 Pandemic, the Appraisal Review Board (ARB) will be conducting all protest hearings by telephone. You will be notified of the date and time of your hearing, and will be called by the ARB at the time of your scheduled hearing. Please make sure you provide a daytime phone number on your protest form so the ARB can contact you to start your ARB Hearing.

Hearing Postponements: As a property owner, you are entitled to one postponement of the hearing without showing good cause. You are also entitled to postpone your hearing if you or your agent shows reasonable cause for postponement. You must request this postponement to the ARB before the hearing date. The ARB will determine if good cause exists for missing your hearing.

Residence Homestead Exemptions: If the property is your home and you occupy it as your principal place of residence, you may qualify for one or more residence homestead exemptions, which will reduce the amount of taxes imposed on the property. If you are single or a married couple filing together, you may be eligible to **apply online** for the **Homestead Exemption** at **www.dallascad.org**. If you are filing for the Age 65 or Older or Disabled Person exemption or the property is owned by multiple owners, you are *not* eligible to file online. However, you may select the link "Print Homestead Exemption Form" from the DCAD website or you may call 214-631-0910.

Special Service Accommodations: The DCAD offices are wheelchair accessible and parking spaces for the disabled are provided. The DCAD will provide sign interpretation services for the hearing impaired at any scheduled hearing or meeting if at least 72 hours advance notice is given. The hearing impaired can call TDD at (214) 819-2368.

If you desire any special assistance during the hearing process to accommodate any disability you have, please specify:

_____

Additionally, to arrange for any special service to accommodate a disability, you may contact the Assistant Director of Administration at (214) 631-0520, extension 1107.

F Questionnaire: Survey

Welcome to our web-based survey that examines residents' preferences regarding property taxes. Please read the consent form below and click "I Agree" when you are ready to start the survey:

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 2-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.

○ Yes, 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 enter the validation code included in the letter (next to the URL of this survey, inside the black box) to begin:

When did you read the letter that included the link to this survey?

- ◯ Today
- ◯ Yesterday
- ◯ This week
- ◯ More than a week ago

The Dallas Central Appraisal District (CAD) just released their 2020 estimates of home market values and property taxes.

For your main residency, how much are your estimated annual property taxes for 2020? (don't worry if you don't remember exactly, we just need your best guess)

Relative to the other households in the county, do you think your household pays a fair amount in property taxes?.

1 - Very unfair	2	3	4	5 - Neither fair nor unfair	6	7	8	9	10- Very fair
○	○	○	○	○	○	○	○	○	○

You have time until June 15th, 2020 to protest Dallas CAD's proposed value of your property. Do you intend to protest this year?

- ◯ Very likely
- ◯ Likely
- ◯ Unlikely
- ◯ Very unlikely

If you can, please explain why you will (or will not) protest in 2020:

Imagine the government gave you full power to choose the property taxes that each household must pay. You can set taxes any way you want, based on what you consider fair.

Household A's home is worth $100,000 and Household B's home is worth $400,000. Which one of the following property taxes would you choose?

- ◯ Household A pays $10,000 and Household B pays $0
- ◯ Household A pays $9,000 and Household B pays $1,000
- ◯ Household A pays $8,000 and Household B pays $2,000
- ◯ Household A pays $5,000 and Household B pays $5,000
- ◯ Household A pays $2,000 and Household B pays $8,000
- ◯ Household A pays $1,000 and Household B pays $9,000
- ◯ Household A pays $0 and Household B pays $10,000

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.

☐ Interested	☐ Hostile	☐ Nervous
☐ Distressed	☐ Enthusiastic	☐ Determined
☐ Excited	☐ Proud	☐ Attentive
☐ Upset	☐ Irritable	☐ Jittery
☐ Strong	☐ Alert	☐ Active
☐ Scared	☐ Inspired	☐ 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.

G Questionnaire: Mturk Survey

Welcome to our web-based survey that examines residents' preferences regarding property taxes. Please read the consent form below and click "I Agree" when you are ready to start the survey:

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 15 minutes and is strictly confidential. All responses are treated as confidential.

○ Yes, 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.

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

State	California
County	Alameda County, California

Do you currently live with your parents or legal guardians?

- ◯ Yes
- ◯ No

Do you (or your parents/legal guardians) rent or own your primary residence?

- ◯ Rent
- ◯ Own

How many years have you (or your parents/legal guardians) owned your primary residence for?

- ◯ Less than 1 year
- ◯ 1 year
- ◯ 2 years
- ◯ 3 years
- ◯ 4 years
- ◯ 5 or more years

Who pays the property taxes on your primary residence?

- ◯ You
- ◯ Your spouse or partner
- ◯ Other:

How do you typically pay for the property taxes on your main residency?

- ◯ Monthly (for example, with your mortgage payments)
- ◯ Once a year
- ◯ Twice a year
- ◯ Other:

Next, we will ask you a few questions about home values and property taxes in **2018**.

Consider the **AVERAGE HOME** in your county. What do you think was its **market value** as of **January 1st, 2018**?

$ _____

Note: Please *do not* write in dollar signs, commas or decimal points. If you are not sure, just provide your best guess.

How confident are you about this value?

Not at all confident	Somewhat confident	Confident	Very confident
○	○	○	○

Consider the **AVERAGE HOME** in your county in 2018. What dollar amount you think that home paid in **PROPERTY TAXES in 2018**?

$ [ ] Annually

Note: Please do not write in dollar signs, commas or decimal points. These were the property taxes that households either paid monthly from January to December of 2018 or in one lump sum typically around December 2018 or January 2019. If you are not sure, just provide your best guess.

How confident are you about this value?

Not at all confident	Somewhat confident	Confident	Very confident
○	○	○	○

Next, a group of individuals participating in this survey will be randomly chosen to receive some information related to the market values and property taxes in your county as of 2018.

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

You have been selected to receive the following information. According to the latest data from the American Community Survey, the following are the average market values and property taxes in your county (Alameda County, California) as of **2018**:

Average home value as of January 1st, **2018: $886,452**

Average property taxes paid in **2018: $6,771**

Please take some time to read and understand this information carefully, because you will not be able to go back to this screen. When you are ready, proceed to the next screen.

The previous questions were about home values and property taxes in **2018**. Now, we want to ask you questions about **2020**.

We want to know about **YOUR HOME**. What do you think was the **market value** of your home as of **January 1st, 2020**?

$ [ ]

Note: Please do not write in dollar signs, commas or decimal points. If you are not sure, just provide your best guess.

How confident are you about this value?

Not at all confident	Somewhat confident	Confident	Very confident
○	○	○	○

What is the dollar amount **YOUR HOUSEHOLD** will pay in **property taxes** for your home in **2020**?

$ [ ] Annually

Note: Please do not write in dollar signs, commas, or decimal points. These are the property taxes that you either pay monthly from January to December of 2020 or in one lump sum typically around December 2020 or January 2021. If you do not know the exact amount, just provide your best gues

How confident are you about this value?

Not at all confident	Somewhat confident	Confident	Very confident
○	○	○	○

Consider the **AVERAGE HOME** in your county in 2020. What do you think was the **average market value** as of **January 1st, 2020**?

$ _____

Note: Please do not write in dollar signs, commas or decimal points. If you are not sure, just provide your best guess.

Consider the **AVERAGE HOME** in your county in 2020. What dollar amount you think that home paid in **property taxes in 2020**?

$ [ ] Annually

Note: Please do not write in dollar signs, commas or decimal points. These are the property taxes that households will either pay monthly from January to December of 2020 or in one lump sum typically around December 2020 or January 2021. If you do not know the exact amount, just provide your best guess.

Find below a **summary of your answers:**

	Your Home	**Average Home in your County**
Market Value:	**$800,000**	**$800,000**
Tax Amount:	**$8,000**	**$5,000**
Tax Rate:	**1.00%**	**0.63%**

Relative to the other households in your county, do you feel the dollar amount that your household pays in property taxes is too little, too much, or about right?

- ◯ 0 - I pay too little
- ◯ 1
  ...
- ◯ 5 - I pay about right
  ...
- ◯ 9
- ◯ 10 - I pay too much

Do you consider the amount of property taxes you pay to be too low, about right, or too high?

- ◯ My taxes are too low
- ◯ My taxes are about right
- ◯ My taxes are too high

Imagine you could change how much YOU pay in property taxes (just you, without changing how much others have to pay). What is the dollar amount of **property taxes** you would consider fair for your household in **2020**?

$ _____ Annually

Note: Please do not write in dollar signs, commas or decimal points. These are the property taxes that you either pay monthly from January to December of 2020 or in one lump sum typically around December 2020 or January 2021.

Some counties allow households to file a protest of their home's assessed value or property taxes. For example, a household may file a form to dispute the county's appraisal of its home's value. To the best of your knowledge, does your county allow you to file these types of protests?

- ◯ Yes
- ◯ No

Do you expect to file a protest of your home's assessed value or property taxes **next year (in 2021)**?

- ◯ Very likely
- ◯ Likely
- ◯ Unlikely
- ◯ Very unlikely

How likely are you to be **late** on payment of your property taxes next year (in 2021) by at least three months?

- ◯ Very likely
- ◯ Likely
- ◯ Unlikely
- ◯ Very unlikely

Imagine the government gave you full power to choose the property taxes that each household must pay, as long as the total property taxes collected stays the same.

You can set taxes any way you want, based on what you consider fair. **What property taxes would you choose for each home?** These two values must add up to $30,000.

Household A (its home is worth $400,000)	$ 0
Household B (its home is worth $1,100,000)	$ 0
Total	$ 0

Which of the following alternatives would you prefer?

- ○ Lower property taxes (your taxes and the taxes of everyone else decrease but you get worse government services)
- ○ Property taxes do not change (your taxes and the taxes of everyone else are held constant and so are government services)
- ○ Higher property taxes (your taxes and the taxes of everyone else increase to provide better government services)

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

- ◯ Democrat
- ◯ Republican
- ◯ Independent

We are almost done. We would like to ask you a few more questions about yourself before finishing the survey.

Please indicate your gender:

- ◯ Female
- ◯ Male
- ◯ Other

How old are you?

[ ]

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

Are you currently married or living with a partner (not including roommates)?

- ◯ Yes
- ◯ No

Do you have kids?

- ◯ Yes
- ◯ No

Please indicate the type of your current primary residence. Is your primary residence a:

- ◯ Single-Family Home
- ◯ Apartment/Condo/Co-op
- ◯ Townhouse/Duplex
- ◯ Mobile/Manufactured home
- ◯ Other

How many bedrooms does your primary residence have?

- ◯ 0 Bedrooms/Studio
- ◯ 1 Bedroom
- ◯ 2 Bedrooms
- ◯ 3 Bedrooms
- ◯ 4 Bedrooms
- ◯ 5+ Bedrooms

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.

☐ Interested	☐ Hostile	☐ Nervous
☐ Distressed	☐ Enthusiastic	☐ Determined
☐ Excited	☐ Proud	☐ Attentive
☐ Upset	☐ Irritable	☐ Jittery
☐ Strong	☐ Alert	☐ Active
☐ Scared	☐ Inspired	☐ 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.