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Housing Wealth Accumulation and Electoral Representation

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We document that housing wealth accumulation systematically differs among homeowners by their political participation. Using a nationwide voter-property dataset, we find that realized housing appreciation increases monotonically the more a homeowner participates in elections. This gradient is robust to rich controls for geography, partisanship, demographics, wealth proxies, and income. An original survey replicates these findings and suggests that personality traits can partly explain the gradient. Additional evidence suggests that the politically engaged actively generate value by buying cheap homes, spending on improvements, and selling at a premium. Overall, politically-engaged homeowners are over-represented in both electoral participation and aggregate housing wealth.

Keywords: Housing wealth accumulation, Electoral representation, Housing inequality

JEL classification: R21, D91, D72

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“In a really equal democracy, every or any section would be represented, not disproportionately, but proportionately[...] I consider it entirely inadmissible that the superiority of influence should be conferred in consideration of property.”

– John Stuart Mill, *Considerations on Representative Government*

1 Introduction

The relationship between economic power and political representation has long occupied a central place in debates within political economy and democratic theory. Much of this work focuses on differences in income, wealth, or demographic characteristics across voters. Less attention has been paid to whether the process of wealth accumulation itself differs systematically across politically engaged and disengaged individuals. Housing markets provide a particularly important setting in which to examine this question, as housing constitutes the largest component of household wealth in the United States and plays a central role in shaping economic opportunity and political preferences.

In democratic societies, political outcomes depend not only on preferences but also on who participates in the electoral process. Electoral participation shapes which issues rise to prominence and how they are addressed (Downs 1957; Dahl 1971, 1989; Caughey and Warshaw 2018), yet participation itself is uneven across citizens. Because individuals’ economic experiences shape their political demands – from job insecurity (Compton and Lipsmeyer 2019) to rising housing costs (Ansell 2014) – differences in economic outcomes can translate into differences in political representation when participation is unequal. Housing markets provide a particularly salient example. Debates over land use, NIMBYism (Hankinson 2018), government mortgage involvement (Liu, McCartney, Ramcharan, Zhang, and Zhang 2025), and eviction protections (Slee and Desmond 2023) reflect not only underlying economic interests but also the composition of the participating electorate, which may be disproportionately drawn from homeowners who benefit from housing appreciation. If housing wealth accumulates unevenly across politically engaged and disengaged individuals, such differences may therefore extend from markets into political representation.

In this paper, we show that the median voter in the US is a homeowner who is benefiting disproportionately from housing market appreciation, and that housing wealth accumulation differs systematically across individuals with varying degrees of political participation. We further document this dimension of political representation is distinct from differences in location, economic resources, or traditional political cleavages such as race, gender, or partisanship. While a large

literature shows that wealthier individuals participate more in politics (Avery 2015; Leighley and Nagler 2013; Schafer, Cantoni, Bellettini, and Berti Ceroni 2022), far less is known about how the process of wealth accumulation is distributed across political participants and nonparticipants, and whether any differences primarily reflect other dimensions or instead constitute an independent *sui generis* dimension of political participation. More broadly, an open question is whether participation in political and economic processes is jointly shaped by underlying individual-level factors.

Conceptually, systematic differences in housing appreciation across levels of political participation need not exist. Housing returns are highly spatial, shaped by neighborhood demand, local labor markets, amenities, and regulatory environments. Political participation itself varies geographically and demographically, raising the possibility that any observed relationship simply reflects traits of the location or of other forms of electoral divide. Alternatively, differences in appreciation could be driven by resources or individual dispositions; for example, differences in income, wealth, credit access, education, or psychological traits could jointly shape both electoral participation and housing outcomes.

To answer these questions, we construct a unique voter-level dataset integrating multiple administrative records across the whole U.S., including property transaction deeds, tax assessments, credit histories (for one large U.S. state), and detailed voter registration and participation records. Our final integrated dataset consists of four key components: voter registration and participation records; property-level information on transaction price, assessed value, hedonic characteristics, and location; individual income, individual measures of wealth, and balance sheet information for a subset of voters; and tract-level socioeconomic characteristics. Using this integrated dataset, we are able to measure the relationship between political participation and housing returns more precisely than what is possible with other available data, and we are able to provide evidence in support or against the role of many ex-ante expected mechanisms. We supplement this data with analysis using the American Housing Survey (AHS) and originally collected survey data.

By comparing housing appreciation across homeowners who differ in their intensity of political participation, we document that homeowners who participate in more elections experience consistently higher housing appreciation than otherwise similar homeowners. For any given holding period, registering six to seven-times (relative to just once) is associated with 1.16–1.86 percentage points higher annual house price growth, while voting in five presidential elections (relative to none) is associated with 0.7–0.8 percentage points higher annual house price growth. These differences translate into a substantial differences in housing wealth over their lifetime. Homeowners

with high levels of political participation accumulate between 22 and 78% more housing wealth over a 40 year horizons and account for 58 percent of voter registrations despite accounting for only 41 percent of the voting-age population. By contrast, homeowners with low political participation experience persistently lower housing appreciation despite comparable exposure to housing markets.

We also show that the relationship between political participation and housing appreciation is monotonic in the degree of political participation. Housing appreciation rises steadily with the number of elections in which homeowners form part of the electorate, even for relatively small differences in participation. That is, housing wealth accumulation is not driven by narrow constituencies, but instead reflect a structured division between more- and less-politically represented voters within the electorate.

We next examine potential channels underlying the relationship between political participation and housing wealth accumulation. A first possibility is spatial: political participation may interact with neighborhood characteristics or fostered by location. This can occur, for example, if local governments are more responsive to constituent demands through improved public services, favorable zoning, or infrastructure investments that elevate property values, or if geographic disenfranchisement efforts (e.g., polling closures, gerrymandering) correlate with property appreciation. In this case, the observed relationship could reflect broader spatial processes rather than individual behavior. However, our estimates indicate that such factors do not account for the pattern we document. The monotonic association between political participation and higher housing returns persists and remains virtually unchanged after controlling for successively more local neighborhood fixed effects and also after accounting for local housing market's secular and seasonal trends.

A second possibility is that political participation simply reflects traditional political or demographic cleavages that jointly affect both housing returns and political engagement. For example, the burden of property taxes – a frequent source of grievance among homeowners (Nathan, Perez-Truglia, and Zentner 2025) – disproportionately falls on minority communities (Avenancio-León and Howard 2022). Similarly, racial minorities and women experience greater financial distress following homeownership (Avenancio-León and Korgaonkar 2025), which can influence both voter participation (McCartney 2021) and housing returns (Kermani and Wong 2024). However, this relationship and its monotonic pattern is not explained by birth year, gender, race, and political affiliation, and point estimates remain virtually identical to baseline estimates.

A third possibility is that the relationship between political participation and housing appreci-

ation reflects differences in individual resources – such as income, wealth, or credit history – that shape both economic and electoral behavior. However, our estimates indicate that neither income nor wealth nor credit can account for the empirical pattern we document. While prior research has shown strong correlations between financial resources and political behavior ([Avery 2015](#); [Schafer et al. 2022](#); [Leighley and Nagler 2013](#); [Franko, Kelly, and Witko 2016](#); [Akee, Copeland, Costello, Holbein, and Simeonova 2018](#)), our findings suggest that the mechanisms behind the relationship between political participation and housing wealth accumulation extend beyond resources.

Finally, we evaluate the role of individual psychological and cognitive dispositions. Using originally collected survey data, we document psychological traits such as personality, perceived self-agency, and beliefs about democracy or markets cannot fully explain the pattern, although, collectively, they explain a meaningful share of it that exceeds what can be explained through demographic or household financial variables. Moreover, while more frequent participants are modestly more educated – by roughly seven months of schooling – neither individual- nor neighborhood-level education mediates the relationship between housing appreciation and political participation.

In contrast to location-based factors, traditional political cleavages, and other factors, we document that, instead, homeowners that politically participate more take systematically different actions in housing markets: they are more likely to purchase undervalued properties, time housing transactions more effectively, and invest more in home maintenance and improvement. On the electoral side, they are also more likely to vote, donate, and contact their local representatives. This is consistent with economic and political behavior being rooted on the same sources of active engagement.

Contributions. Documenting the systematic differences in housing wealth accumulation across the electorate contributes mainly to two streams of literature – that on the political economy of housing and wealth accumulation. An important part of that contribution is to reshift focus from just owning a home to the process of housing wealth accumulation when evaluating the incidence of housing in political representation. Existing work largely treats housing as a binary condition – owning versus renting – or emphasizes local housing conditions as location-based drivers of political participation. For example, [McCartney \(2021\)](#) shows that ZIP-code-level home value declines after the 2008 financial crisis led to lower individual turnout, while an older literature documents higher civic engagement among homeowners than renters ([DiPasquale and Glaeser 1999](#); [Oliver, Ha, and Callen 2012](#); [Wolfinger and Rosenstone 1980](#); [Verba, Schlozman, Brady, and Nie 1993](#)). Using property-voter level data, [Hall and Yoder \(2022\)](#) find that turnout increases

following homeownership, with effects that scale with the price of the home purchased – distinct from the wealth accumulation patterns we study.

All of these studies leave unresolved whether housing itself catalyzes greater engagement or whether both political participation and housing outcomes reflect shared underlying economic, demographic, or behavioral factors. This distinction is critical, as a parallel literature shows that wealthier individuals are systematically more engaged in politics ([Braconnier, Dormagen, and Pons 2017](#); [Fowler et al. 2013](#)). As a result, observed differences in participation by homeownership status may primarily reflect selection on systematic factors, rather than either a causal effect of housing experiences on political participation or an underlying idiosyncratic feature distinguishing housing-advantaged and housing-disadvantaged electorates. Beyond standard structural explanations about political cleavages, resources, or location-based factors, our findings point to individual-level differences in active economic behavior as a key link between housing wealth accumulation and political participation, sharpening our understanding of who is represented in housing policy debates.

More broadly, our findings contribute to the expansive literature exploring the determinants of political participation by providing evidence in support of a previously underappreciated dimension: political engagement’s intrinsic relationship with individual-level economic engagement, independent of traditional socioeconomic predictors of participation such as income, wealth, demographic traits, or neighborhood contexts ([Avery 2015](#); [Leighley and Nagler 2013](#); [Schafer et al. 2022](#)). While existing studies often focus on resources, logistical barriers, or social networks as key determinants of political participation, our analysis highlights active decision-making behaviors (e.g., choice of asset/property, economic timing, investment of effort/upkeep) as potential mediating and characterizing features of the relationship between political participation and wealth accumulation. This perspective shifts the analysis of the relationship between economic and political behavior from a focus on systematic factors to an understanding of their co-determination based on shared individual-level active engagement.

Lastly, at a macro-level, this paper contributes to the literature on democracy and economic performance by shifting attention from aggregate-level analyses to individual-level mechanisms linking political participation and wealth accumulation. Whereas prior work primarily examines how democratic institutions affect aggregate growth or how economic conditions shape democratic transitions (e.g., [Acemoglu, Naidu, Restrepo, and Robinson 2019](#); [Acemoglu, Johnson, Robinson, and Yared 2008](#); [Barro 1996](#)), we document a robust micro-level association between political participation and economic engagement. We document that electorally engaged individuals sys-

tematically accumulate greater wealth, independent of standard socioeconomic, demographic, and spatial explanations. Our evidence parallels macro-level patterns linking democracy and economic growth with a micro-level relationship in which active engagement and decision-making jointly shape electoral and economic engagement. By uncovering this relationship, our findings suggest a set of micro-level mechanisms that may underlie the well-documented association between democratic systems and economic growth, and hopefully point to the value of further research connecting individual electoral engagement to aggregate economic outcomes.

2 Housing Wealth Accumulation as a Dimension of Political Representation

Drawing on [Lipset and Rokkan \(1967\)](#)’s conception of cleavages as durable social divisions that become politically organized, we use the term political cleavage to denote a durable and socially or materially consequential dimension along which political participation, and thus political representation, systematically diverges within the electorate. Classic examples include class, religion, race, and geography: dimensions that do not merely separate individuals socially, but also structure their incorporation into political life. We are interested in characterizing housing wealth accumulation as a political cleavage. To impose some structure on our definition, let Θ denote a vector of observable person-level characteristics, and let *PoliticalParticipation* denote political participation. We say that a characteristic θ constitutes an uncharacterized cleavage if two conditions hold: first, θ captures a socially or materially meaningful dimension of difference across individuals; and second,

$$\mathbb{E} [PoliticalParticipation \times \theta | \Theta \setminus \{\theta\}] \neq 0.$$

Put simply, θ is a cleavage if it is both socially or materially consequential and contains variation, orthogonal to other observable person-level cleavages, that explains political participation. In that case, a politician could potentially gain additional support by mobilizing voters with a value of θ associated with under-participation.

Since housing constitutes the largest component of household wealth in the United States and since housing markets sit at the center of some of the most contested policy debates in democratic politics – from land use and zoning to eviction protections and property taxation – it seems plausible that housing wealth accumulation constitutes a political cleavage. That is, realized housing gains are systematically higher among homeowners who are more deeply incorporated into democratic

institutions, and this alignment is distinct from existing cleavages and other observable person-level characteristics.

We clarify that political cleavages are defined by the alignment between material interests and political participation, not by any latent variables that generate either. Like with class or race, the political significance of housing wealth accumulation derives not from any single causal channel but from the durable alignment between who benefits from housing markets and who is represented in democratic institutions. This means that we do not take a stance on whether higher accumulation causes more political participation, whether more political participation causes higher accumulation, or whether an unobservable latent variable causes both.

2.1 Challenges to Identifying a Cleavage

Three classes of explanations could generate a correlation between political participation and housing appreciation without implying a distinct cleavage.

Location and spatial sorting. Political participation varies systematically across space, as do housing returns. If more politically engaged individuals are disproportionately concentrated in areas with stronger housing demand or more favorable local policies, the observed gradient may reflect differential exposure to local market conditions rather than anything about individuals themselves. This account predicts that conditioning on sufficiently fine geographic fixed effects should substantially attenuate the relationship.

Traditional demographic and partisan cleavages. Age, race, gender, and partisan affiliation all independently predict both political participation and housing outcomes. Racial disparities in appreciation persist due to historical and ongoing discrimination. Gender gaps in housing returns reflect differences in bargaining and market timing ([Goldsmith-Pinkham and Shue 2023](#)). Partisan affiliation may also correlate with housing outcomes through residential sorting and local policy environments (e.g., [McCartney, Orellana-Li, and Zhang 2024](#)). If these established cleavages drive the pattern, controlling for them should largely eliminate the participation-appreciation gradient.

Socioeconomic resources. Income, wealth, and credit access reduce barriers to political participation and enable access to higher-appreciation markets. Under a resource-based account, the participation-appreciation gradient should weaken substantially once financial characteristics are accounted for.

Each of these explanations implies that the relationship between political participation and housing appreciation is not a distinct dimension of representation but a reflection of something already well understood. The empirical analysis tests this directly: under the null that housing wealth accumulation does not constitute a political cleavage, conditioning on location, demographics, and financial resources should substantially attenuate – or eliminate – the relationship between political participation and housing returns. We will document that it does not.

3 Data and Empirical Specification

3.1 Data

We conduct our analysis after first building a rich data set assembled from a variety of sources. The data cover not only a person’s political participation and housing wealth accumulation, but also a host of other variables related to the person’s demographic profile, income, liquid wealth, education, and psychological characteristics. The core of our analysis relies on a data set built of three components: voter records data, property-level transaction deeds data, and tract-level characteristics. For a subsample of observations, we complement this core dataset with credit bureau and Home Mortgage Disclosure Act (HMDA) information. We succinctly summarize key statistics of the resulting dataset in Table 1.

Voter Records. The voter records are obtained from L2, a non-partisan data vendor widely used in political campaigns and academic research. Each voter is assigned a unique identifier by L2. The data provide information on all registered voters’ birth year, gender, and ethnicity, and education, as well as year-by-year observations of voters’ marital status and homeownership status. We pool observations from 2014 to 2020 and aggregate voter registration and turnout histories to identify levels of political participation.

L2 additionally reports year-by-year information on voters’ partisanship. For 34 states (and Washington, DC), party affiliation is self-reported by voters. In the remaining states, partisanship is inferred using multiple sources, including primary election participation, demographics, and exit polls. By aggregating voters’ partisanship histories over time, we identify voters’ party affiliations.

Housing Transactions. The core data for our analysis consist of property-level transaction deeds obtained from CoreLogic. Each observation corresponds to a housing transaction and includes the transaction date, sale price, property type, buyer name, and seller name. The data also include indicators for foreclosure sales, intra-family transactions, new construction, investor purchases,

and corporate purchases. Using these indicators, we restrict the sample to arm’s-length, non-foreclosure transactions of residential properties in the resale market. In addition to transaction details, the dataset includes static property characteristics such as property code, FIPS code, ZIP code, and year built, which allow us to uniquely identify properties.

Using the history of consecutive arm’s-length, non-foreclosure transactions for each property, we compute realized housing appreciation over the holding period. Specifically, for each property i , we match the buyer and subsequent seller names to identify the purchase date t_b , sale date t_s , purchase price P_b , and sale price P_s . To minimize matching errors, we require an exact match between buyer and seller names across transactions, as described in detail in Appendix A. We further restrict the holding period to be at least six months to rule out speculative flips and to avoid extreme annualized appreciations driven by short holding durations. Appreciation is winsorized at the 1st and 99th percentiles. We also drop observations in which voters purchase properties before age 18.

By merging voter records – which include voting propensity and partisanship – with property-level appreciation data, we associate housing appreciation with voters’ levels of political participation and assess how democratic participation relates to wealth accumulation through housing.

3.1.1 Additional Data Sources

Census Tract Characteristics. Using longitude and latitude from property assessment records, we assign each property to a census tract and merge in tract-level characteristics from the American Community Survey (ACS) 5-year estimates to account for potential hedonic pricing effects.

Household Debt and Wealth from Credit Bureaus. We further merge our core voting-property dataset with detailed individual-level financial histories from one of the three major U.S. credit bureaus. These data include borrowers’ credit scores, liabilities (e.g., auto loans, installment loans, and credit card balances), and performance measures (e.g., defaults, foreclosures, and bankruptcy events). Access to these data was facilitated by the credit bureau under strict federal privacy regulations, with all personally identifying information removed prior to delivery.

To construct this merged dataset at feasible cost, we focus on a large U.S. state – North Carolina. The credit bureau matched our voter-property records to individual credit files using name, date of birth, and address. Following the match, all identifying information was stripped, and we received an anonymized research subsample.

Income and Mortgages from HMDA. Finally, we link voting-property records to income at the time of purchase using HMDA data. HMDA requires financial institutions to report detailed information on mortgage applications and originations at the loan level. Following standard procedures in the literature (e.g., [Bayer, Casey, Ferreira, and McMillan 2017](#); [Bartlett, Morse, Stanton, and Wallace 2022](#)), we merge HMDA records based on transaction year, census tract, lender name, and loan amount rounded to the nearest thousand.

3.2 Empirical Specification

We begin with a fairly standard reduced-form asset-pricing model for the annualized appreciation of home i from a purchase at time t_1 to a sale at time t_2 :

$$g_{i,t_1,t_2} \equiv \frac{1}{t_2 - t_1} \log \left(\frac{Price_{t_2}}{Price_{t_1}} \right) = \delta_{t_2-t_1} + \lambda_{j(i),t_2} + \epsilon_{i,t_1,t_2}, \quad (1)$$

where $\delta_{t_2-t_1}$ is a vector of fixed effects for the length of the holding period, $t_2 - t_1$, and $\lambda_{j(i),t_2}$ is a vector of fixed effects for bins defined by surrounding geography $j(i)$ and sale year t_2 .

Including location fixed effects $\lambda_{j(i),t_2}$ allows us to interpret the residual, ϵ_{i,t_1,t_2} , as the excess price appreciation on home i relative to a benchmark portfolio of homes sold in the same geography and year. The fixed effects $\delta_{t_2-t_1}$ further accommodate asset-level illiquidity and, in particular, the well-documented fact that real estate appreciation depends on the length of the holding period (e.g., [Giacoletti 2021](#); [Sagi 2021](#)). A linear combination of $\lambda_{j(i),t_2}$ and $\delta_{t_2-t_1}$ also encodes the specific time period over which the property was held and thus absorbs aggregate shocks to housing appreciation common across assets (e.g., CPI inflation).

Our empirical analysis tests whether the asset-pricing residual ϵ_{i,t_1,t_2} varies systematically with the degree of political participation of the individual who owns property i over the holding period from t_1 to t_2 . More precisely, we estimate the following extension of Eqn. 1:

$$g_{i,k,t_1,t_2} = \beta \cdot f(PoliticalParticipation_k) + \gamma X_{i,k} + \delta_{t_2-t_1} + \lambda_{j(i),t_2} + u_{i,t_1,t_2}, \quad (2)$$

where k indexes the owner of property i during the holding period, and $X_{i,k}$ denotes a vector of individual- and property-level controls.

The key independent variable, $PoliticalParticipation_k$, captures an individual's degree of participation in the democratic process. Conceptually, this includes repeated engagement in electoral activities such as voter registration, turnout, and political contributions. While this is a latent construct, our empirical strategy focuses on observable manifestations of participation that reflect sustained political mobilization rather than one-off engagement.

3.3 Measuring Political Participation

Political participation is a latent construct capturing an individual’s sustained inclusion in democratic institutions. Conceptually, it reflects durable political visibility rather than episodic or election-specific participation, encompassing repeated engagement in activities such as voter registration, turnout, and political contributions over time.

Because political participation is not directly observable, we rely on empirical proxies that capture sustained engagement with the electoral system. Our analysis focuses on two complementary measures. The first captures persistence in voter registration. Registration represents a forward-looking decision to enter the electorate, lowering future participation costs and enabling subsequent political activity. Unlike election-by-election turnout, which may reflect short-run mobilization, active decisions not to cast a vote on election day, or idiosyncratic shocks, registration reflects a stable institutional threshold: individuals must register before they can vote, and registration confers durable political visibility within the electorate that enables systematic campaign mobilization and fundraising. As a result, the number of years an individual remains registered captures the persistence of their incorporation into the democratic system.

The second measure captures realized electoral participation through voting behavior. Specifically, we measure the number of presidential elections in which an individual is observed voting since 2000. Whereas registration reflects potential participation and institutional incorporation into the electorate, voting behavior captures realized engagement in national elections. Together, these measures capture two closely related but distinct dimensions of sustained political participation: continued presence in the electorate and repeated exercise of the franchise.

These measures are strongly correlated and yield similar gradients in housing appreciation across participation levels. In addition, we verify that our results are robust to alternative indicators of sustained political engagement, including political donation activity (see Section 4 and Appendix C). Whenever an analysis needs to be performed on a subsample (e.g., credit analyses), we reestimate Eqn. 2 within the subsample before proceeding to compare estimates across specifications with different controls.

3.4 Original Survey Evidence

We complement the administrative data with original survey evidence designed to measure dimensions of engagement, beliefs, and behavior that are not observable in voter or housing records. The survey was administered online during the summer of 2025 through the Prolific platform to a sample of U.S. homeowners at least 27 years old. The instrument focuses on respondents’ housing

histories and self-assessed housing appreciation, effort and investment in housing markets, civic and political engagement, beliefs about economic and democratic institutions, personality traits, perceived agency, and financial literacy. Respondents report the year and price at which they purchased their current home, its current estimated market value based on online real estate platforms (e.g., Zillow, Redfin), time spent on home maintenance, capital expenditures on non-routine repairs, and the extent of housing search activity. These measures allow us to construct self-reported housing appreciation and to directly observe margins of engagement that cannot be recovered from transaction data alone.

In addition to housing-related measures, the survey elicits multiple indicators of political and civic engagement, including political participation since 2000, recent civic activities such as contacting elected officials or participating in community events, and normative beliefs about citizenship. The survey further includes standard tests capturing personality traits (Big Five), financial risk preferences, financial literacy, and perceived personal and community agency. These data are used to assess whether personality traits, beliefs, and perceptions of agency are jointly associated with political participation and housing outcomes, and to distinguish these channels from explanations based on education, income, or wealth.

4 Baseline Relationship: Political Participation and Housing Appreciation

This section establishes the baseline empirical relationship between political participation and housing appreciation. We document how housing appreciation varies across levels of political participation and characterize a monotonic relationship. This relationship serves as the empirical benchmark against which the analyses in subsequent sections are organized and clarifies the object of interest that those sections seek to explain.

Political Participation–Appreciation Gradient. Our core specification follows Eqn. 2, which relates annualized housing appreciation to an individual’s degree of political participation, measured by either the timing and persistence of voter registration or by actual voting. The specification flexibly controls for holding-period effects, geography-by-year fixed effects, and birth-cohort fixed effects, thereby isolating variation in housing returns within local housing markets and among otherwise comparable homeowners. This specification establishes the baseline empirical relationship between political participation and housing appreciation, against which all subsequent analyses in the paper are benchmarked.

Tables 2 and 3, column (1) report the main results. Across all specifications, we find a positive and mostly monotonic relationship between political participation and housing appreciation. Homeowners who are more politically engaged for a larger number of elections experience systematically higher realized housing returns. Individuals with minimal political engagement earn the lowest appreciation, while those engaged throughout the full sample period earn the highest appreciation. When comparing homeowners with high and low levels of electoral registration, we find that there is a 1.7–2.1 percentage point difference between a homeowner who has been registered for seven years relative to a homeowner registered once in the 2014–2020 period. When comparing homeowners with high and low levels of voting, we find that there is a 0.7–0.8 percentage point difference between a homeowner who has voted in five presidential elections relative to a homeowner who has voted none during the 2000–2016 preceding presidential electoral cycle (2020 being the reference year). We refer to this monotonic, ordered relationship between political participation and housing appreciation as the political participation–appreciation gradient.

The magnitude of this gradient is economically meaningful. Moving from low to high levels of political participation is associated with an increase in annual housing appreciation of roughly 1.5–2 percentage points, depending on the specification. The monotonic nature of the relationship is apparent visually. Figure 2 plots the point estimates from the baseline specification by political participation level, showing an ordered increase in housing appreciation as participation rises.

Scope of the Political Participation–Appreciation Gradient. Tables 2 and 3, columns (2)–(4) report estimates of the participation–appreciation relationship separately by partisan affiliation. Across all partisan groups, higher levels of political participation are associated with higher housing appreciation. While the magnitude of the gradient differs across affiliations, the ordering of returns by participation level is preserved. When measured by registrations, the gradient is largest among voters who do not identify as either Republican or Democrat. When measured by voting, the political participation–appreciation gradient is more pronounced among Republican voters. In both tables, Democratic voters exhibit a slightly smaller but still economically meaningful and statistically positive gradient. Importantly, in no partisan group do we observe evidence that higher participation is associated with lower housing appreciation. These results indicate that the baseline relationship is not driven by a single partisan constituency and does not reflect well-documented party-specific housing dynamics (McCartney et al. 2024).

Figure 3 examines the participation–appreciation gradient across geographic units. The figure shows that the relationship is present in the vast majority of states (Panels (a) and (b)) and counties

(Panels (c) and (d)). Although the estimated magnitude varies across locations, the gradient is positive in nearly all cases, with only a small number of exceptions. The geographic pattern suggests that the results are not driven by a narrow set of high-growth housing markets or by idiosyncratic local conditions. Instead, the participation–appreciation relationship appears across heterogeneous housing markets, including areas with markedly different price levels, growth rates, and demographic compositions.

Political Donations as an Alternative Measure of Political Participation. While registration and voting serve as our baseline measures of political participation, participation is inherently a latent construct, and no single observable variable captures all of its dimensions. We therefore complement our analysis with political donation activity, which reflects a higher-cost and more expressive form of engagement. Unlike registration and voting, donation behavior captures discretionary political action that goes beyond basic electoral incorporation. If our baseline results extend to more intensive forms of political participation, a similar pattern should emerge when participation is measured through donations. This is what we find.

Figure [IA1](#) shows that individuals who make political donations are also more likely to register more and vote more. In the context of registration, Table [IA11](#) further shows that donation intensity – measured as the share of elections in which an individual makes a political contribution – increases monotonically with political participation. Individuals who register in the largest number of elections donate in approximately 12 percent more of those elections than very low participation homeowners. This pattern holds across partisan groups and is especially steep among Republican voters. Finally, Table [IA10](#) replicates our main finding using political donations as the measure of political participation and finds that, regardless of political affiliation, individuals who donate more experience greater housing appreciation.

5 Lack Of Evidence For Place-Based and Structural Explanations

This section evaluates explanations emphasized in the literature that could jointly shape housing appreciation and political participation, and therefore potentially account for the political participation–appreciation gradient. We find no evidence that exposure to place-based factors, traditional demographic cleavages, or socioeconomic resources explain the relationship.

5.1 Ruling Out Location-Based Factors and Neighborhood-Level Correlates

A natural concern is that the relationship between housing appreciation and political participation reflects where individuals live rather than how they interact with housing markets. To assess this possibility, we ask whether the relationship persists when comparisons are made among homeowners located in the same neighborhood and exposed to the same local housing market conditions. In the limiting case, if location-based factors – such as neighborhood desirability, local economic growth, or policy environments – drive the relationship, then nearby properties subject to the same local shocks should exhibit similar appreciation regardless of owners’ political participation.

We approximate this comparison by conditioning on successively finer geographic units, ranging from counties to census tracts, congressional districts, and block groups. This approach allows us to assess whether the political participation–appreciation gradient attenuates once increasingly granular location fixed effects absorb local housing market dynamics.

Revisiting Tables 2 and 3 shows that conditioning on progressively finer geographic units leaves the estimated relationship between political participation and housing appreciation essentially unchanged. Unlike the case of many other determinants of housing appreciation, for which controlling for location explains a substantial share of variation, neighborhood-level controls do not attenuate the observed gradient. Appendix Table IA1 presents estimates at the county-level without conditioning on finer geographic units and finds virtually identical results.

Likewise, voter participation itself is often spatially correlated and linked to neighborhood-level environments or election administration that could explain the results. But as our results show, controlling for increasingly granular geography does not attenuate the estimates, indicating that location-specific participation conditions are unlikely to drive the relationship.

Taken together, we do not find evidence supporting exposure to location-based factors as the primary explanation for our findings. This leaves mostly factors that cut across individuals, including traditional political cleavages (e.g., gender, race), individual economic resources, and individual cognitive and psychological dispositions (e.g., education, personality traits). In the next subsection, we address the first case.

5.2 Evaluating the Contribution of Traditional Demographic Cleavages

We next examine whether the political participation–appreciation gradient reflects traditional political or demographic cleavages. Tables 2 and 3 show that partisan affiliation does not explain the relationship. This can also be observed visually in Figure 2, Panels (c) and (d). Across party

groups, a higher degree of political participation is consistently associated with higher housing appreciation.

Similarly, Figure 2, Panels (c) and (d) (plotting estimates from Tables IA1 and Tables IA4 and IA5) shows that controlling for race leaves the political participation–appreciation estimates essentially unchanged. Despite well-documented racial disparities in housing appreciation (e.g., Kermani and Wong 2024), race does not account for the gradient. That said, Table IA4 indicates that beyond the political participation–appreciation gradient Black homeowners experience some heterogeneity at low participation levels, where Black homeowners experience larger appreciation gains when participating in two or three elections.

Figure 2, Panels (c) and (d) also shows that controlling for gender preserves the political participation–appreciation gradient. Tables IA6 and IA7 additionally present heterogeneity by gender. When measuring political participation by registration, female homeowners earn lower annual appreciation relative to male homeowners (-0.52 p.p) regardless of political participation, with particularly low gains among unaffiliated female homeowners (-0.77 p.p.). Measuring political participation by voting yields qualitatively similar estimates (women homeowners earn -0.73 p.p relative to men). In addition, the appreciation to increased political participation as measured by registration is lower for women, especially at higher participation levels – although this attenuation of the gradient for women disappears when participation is measured by voting. In Section 6, we document that electorally engaged individuals make systematically different housing decisions – particularly with respect to purchase prices and market timing – mechanisms that have been shown to underlie gender gaps in housing appreciation (Goldsmith-Pinkham and Shue, 2023).

5.3 Resource-Based Explanations: Observed Income, Credit, and Wealth Measures Do Not Materially Attenuate the Relationship

The analyses in this subsection use additional covariates observed only in selected subsamples. They are therefore intended as attenuation exercises rather than definitive tests of whether resources explain the participation–appreciation gradient. In each case, we first re-estimate the baseline appreciation specification within the relevant subsample and then assess whether adding the additional covariate materially changes the participation coefficients. Because these samples differ in coverage from the main sample, the resulting estimates should be interpreted as evidence about the role of these observed measures in those samples, not as population-wide proof.

Figure 5 presents differences in coefficients before and after controlling for measures of economic resources. Panels (a) and (e) present differences before and after controlling for income

obtained from HMDA. Panels (c) and (g) control for a net housing wealth proxy equaling the value of the home less the totality of all liabilities directly measured from credit reports for homeowners in North Carolina. Panels (d) and (h) control for credit score obtained from the same records. Across all analyses, adding controls does not change the coefficients. We will discuss differences in education in Section 6.3.

Below, we provide additional nuance that helps interpret this stability and clarify why differences in economic resources are unlikely to explain the political participation–appreciation gradient.

Economic Traits of the Electorally Engaged. Tables IA26 and IA28 examine how political participation relates to income and wealth. Columns (1)–(4) of Table IA26 show that higher political participation is associated with lower income, though the magnitude of this relationship attenuates as controls are added. In baseline specifications, participating in more elections is associated with progressively lower income; this pattern persists, albeit more weakly, after controlling for transaction year, tract, holding period, race, and gender. Table IA28 reports a similar pattern for wealth. This matters because it suggests that positive selection on economic resources is unlikely to explain the main results: if anything, more electorally active individuals appear to have lower income and wealth on average. It also indicates that it is not that electorally active individuals do not vary systematically in their resources, but that, conditional on location and age, resources do not account for the participation–appreciation relationship.

Income and the Political Participation–Appreciation Gradient. The patterns in Table IA26 establish that income is meaningfully related to political participation, making it a natural candidate explanation for the appreciation gradient. Differences in income could plausibly account for both political participation and housing appreciation (see, e.g., Schafer et al. 2022; Aneja and Avenancio-Leon 2019; Gupta, Hansman, and Mabilie 2024). To assess this explanation, Columns (1) and (2) of Tables IA8 and IA9 estimate the political participation–appreciation relationship within the subsample for which individual income is observed, with column (2) of each table explicitly controlling for income. The estimates are virtually unchanged. Controlling for income does not change the relationship between political participation and housing appreciation, indicating that the gradient is not driven by household earnings.

Wealth and the Political Participation–Appreciation Gradient. Wealth provides a parallel case. We would like to first caveat that our wealth measure should be interpreted as a partial balance-

sheet proxy rather than comprehensive net worth. It does not include all non-housing assets and may measure liabilities more completely than assets. Accordingly, the limited attenuation we observe after adding this proxy indicates that this balance-sheet measure does not account for much of the gradient; it does not establish that wealth more broadly is irrelevant.

Having said that, as Table IA28 shows, wealth is systematically related to political participation, but columns (5) and (6) of Tables IA8 and IA9 show that controlling for individual wealth does not change the relationship political participation and appreciation might have. While wealthier individuals generally have more access to investment opportunities and financial resources, our findings suggest that the connection between political participation and housing appreciation is not simply a consequence of wealth. When we examine heterogeneity by wealth quartile (Figure 4), the gradient is strongest among households in the lower half of the wealth distribution; exactly the population for whom housing is their main asset, and our wealth measure more closely aligns with net worth. This pattern is difficult to reconcile with explanations based on financial capacity alone.

Credit. Credit outcomes point in the same direction. Table IA29 shows that higher political participation is associated with better credit scores, although not statistically significant differences in defaults, liabilities, or foreclosures. Individuals who politically participated the most have credit scores 10–14 points higher on average. Yet columns (7) and (8) of Tables IA8 and IA9 show that controlling for individual credit scores does not change the relationship between participation and appreciation. We relate appreciation to financial literacy and human capital in section 6.

5.4 Government Mortgage Assistance as a Cleavage

Another possible confounding cleavage concerns the extent to which a person has benefited from extensive government involvement in the mortgage market. Notably, Liu et al. (2025) find that benefiting from government efforts to facilitate refinancing during the 2009-2012 housing market crisis raises the likelihood that a homeowner votes in the 2012 general election. So, it could be that the politically engaged experience higher appreciation because they are more likely to use mortgage financing than to make an all-cash purchase. In particular, mortgage financing provides the homeowner with liquidity to make home improvements that can increase the home's rate of appreciation.¹

¹In the opposite direction, mortgage financing can reduce the rate of appreciation relative to an all-cash purchase because it requires the homeowner to pay a mortgage-cash premium when buying the home (Reher and Valkanov 2024).

Accordingly, we examine whether our results continue to hold in a sample of all-cash transactions, such that the homeowner does not directly benefit from government involvement in mortgage markets. The results in Table IA12 show that the gradient continues to hold in this sample and actually appears somewhat stronger than the gradient in the mortgage-financed sample, although both are economically and statistically significant. This finding implies that differences in the propensity to use mortgage financing cannot explain the relation between appreciation and electoral participation.

5.5 Does Housing Wealth Accumulation Cause Political Participation?

Since our notion of a cleavage is inherently non-causal, differences in housing wealth accumulation can still constitute a cleavage even if they actually cause the increase in political participation documented in Tables 2 and 3. We examine the scope for such causality in Table IA23 by restricting the sample of transactions to those with a holding period that begins *after* we begin to observe voter registration in 2014. If our main results reflect a causal effect of higher accumulation on participation, then we would expect to see a much smaller gradient in this sample – where participation and housing investments occur contemporaneously – relative to a sample of transactions in which the property is sold before 2014. However, comparing estimates in the pre-2014 and post-2014 periods shown in columns (1) and (2) of Table IA23, respectively, actually suggests that the gradient is somewhat larger in the post-2014 sample. So, our results do not seem to be driven by a causal effect of housing wealth accumulation on political participation.

5.6 Systematic Market-Driven Appreciation and Political Participation

Relatedly, a remaining concern is that the political participation–appreciation gradient may be driven not by individual-level behavior, but by systematic housing-market forces that are orthogonal to the factors we have presented thus far, but still constitute a passive form of engagement from the perspective of the homeowner. For example, homeowners exposed to stronger market-wide appreciation may subsequently become more politically mobilized, or may sort into forms of participation for reasons mechanically related to those common appreciation shocks. To assess this possibility, we construct a measure of synthetic appreciation that removes idiosyncratic, individual-level components of realized returns and isolates the portion of appreciation driven by broader market forces. This allows us to test whether the relationship we document can be explained by systematic market-driven appreciation alone rather than by the individual-level mechanisms we evaluate in the next section.

We construct a Bartik-style measure of appreciation based on national trends in the valuation of structural housing characteristics, excluding the homeowner’s county. We call this measure “synthetic appreciation.” For each year t and county i , we estimate a leave-one-county-out hedonic regression that relates transaction prices to structural characteristics, controlling for county fixed effects. Using the resulting coefficients, we predict counterfactual purchase and sale prices, P_b^H and P_s^H , and define the synthetic appreciation as

$$r_i^S = \left(\frac{P_s^H}{P_b^H} \right)^{\frac{1}{t_s - t_b}} - 1.$$

Synthetic appreciation combines national price trends (the “shift”) with each property’s fixed characteristics (the “share”).² We do not interpret this exercise causally, rather as a falsification exercise: synthetic appreciation allow us to remove idiosyncratic homeowner-level factors, so that any remaining relationship with political participation must operate through systematic, non-idiosyncratic channels, such as broad market appreciation or sorting. If the participation–appreciation gradient were alone generated by systematic appreciation shocks that mechanically induce political participation, with no role for idiosyncratic behavior, then synthetic appreciation should exhibit a similar positive relationship with participation.

Table 4 shows that they do not. Synthetic appreciation are generally uncorrelated – or weakly negatively correlated – with political participation across multiple measures. We find no positive relationship with voter registration, donation intensity, or turnout, which indicates that systematic market-driven appreciation do not generate the political participation–appreciation gradient we document. Indeed, Tables IA30 and IA31 further show that there is no relation between synthetic appreciation and electoral participation based regressions of the same form as in Tables 2 and 3.

Recapping, the evidence from this subsection suggests that the politically engaged experience higher appreciation through the idiosyncratic component of appreciation, not the systematic component. In the next section, we more specifically examine what the politically engaged do to experience higher idiosyncratic appreciation, and we then link this behavior to specific personality traits and views on democracy and the economy (“psychographic” variables).

6 Active Engagement and Housing Wealth Accumulation

This section investigates why electorally engaged homeowners earn systematically higher housing appreciation. Building on the prior sections, we proceed in three steps. First, we introduce a

²Figure IA2 shows that realized housing returns increase roughly monotonically with synthetic returns, providing support for the relevance of our synthetic return measure.

simple accounting framework to clarify the margins through which active engagement in housing markets can generate higher appreciation. Second, we document that electorally engaged homeowners behave differently along these margins of decision-making: they purchase lower-priced and potentially undervalued properties, time transactions more effectively, invest more in home improvements, and assume greater housing market risk. Third, we examine whether human capital and deeper psychological and cognitive dispositions help account for these patterns of active engagement. We study these mechanisms using multiple data sources, including our main administrative transaction data, the Understanding America Study, the American Housing Survey, and original survey data.

6.1 Accounting Characterization of Active Engagement

A stylized framework helps clarify the mechanisms through which electorally engaged homeowners realize higher housing appreciation. The setup parallels a simple dynamic investment problem. Consider a homeowner who purchases H_t units of housing quality at time t . Denote the quality-adjusted price of housing at time t by Q_t , and denote the next-period quality-adjusted price by Q_{t+1} . Housing quality evolves according to

$$H_{t+1} = H_t(1 - \delta) + I_t, \quad (3)$$

where δ is the depreciation rate and I_t represents investment in housing quality. Because housing is indivisible, we interpret I_t not as the acquisition of additional properties, but as improvements that augment the value of an existing home.

This formulation implies a simple accounting expression for expected appreciation. The expected value of next-period housing, relative to current quality, is

$$\frac{\mathbb{E}[Q_{t+1}H_{t+1}]}{Q_t H_t} = \frac{\mathbb{E}[Q_{t+1}]}{Q_t} \left(1 - \delta + \frac{I_t}{H_t}\right). \quad (4)$$

6.2 Evidence of Active Engagement in Housing Markets

Eqn. 4 summarizes the key margins through which a homeowner can actively engage. In this section, we examine whether electorally engaged homeowners take systematically different actions in housing markets. Here, the evidence points to a consistent pattern of active engagement.

Initial Housing Quality. Electorally engaged homeowners purchase smaller homes with fewer amenities, conditional on location and time. In Eqn. 4, for a given level of investment, lower initial housing quantity mechanically raises proportional gains, as the term $1/H_t$ is larger. Table 5 shows

that higher political participation is associated with purchasing homes with fewer rooms and fewer amenities such as a fireplace or pool. That the politically engaged experience higher subsequent appreciation after buying ostensibly lower-quality homes suggests a role for investments in property improvements, which we soon verify.

Initial Price of Housing. The quality-adjusted price at which a home is sold, Q , depends on the fundamental value of the home, the willingness-to-pay of the buyer, and the outside option of the seller. In Table 6, we replace the outcome variable with the difference between initial log purchase price and the initial log assessed value. We interpret this difference as the quality-adjusted price of the home, since the assessed value is, by design, intended to measure the home's fundamental value. The results in columns (1) and (2) of Panel A imply that the quality-adjusted purchase price decreases the more times that the home buyer registers to vote, with those who register the most buying homes at around a 4 log point discount relative to those who register the least. We obtain a similar result when simply replacing the outcome with log purchase price, as shown in column (1) of Table 7. When measuring political participation using voting in Panel B of Tables 6 and 7, we also find evidence that those who vote the most buy homes at a discount relative to those who vote only once or twice in our sample, although the relation between purchase price and voting is not monotonic.

In light of our simple framework, the fact that the engaged buy homes at a discount lowers Q_t and, thus, raises their overall appreciation. Since this discount holds relative to the home's assessed value, it most likely reflects the ability of the engaged to either negotiate a lower sale price or to identify buyers with a low outside option, and, thus, willingness to sell at a lower price.

Subsequent Price of Housing. Also in Table 6, we find the the more a homeowner registers or votes, the higher the subsequent sale price relative to assessed value. This relation is monotonic in electoral participation, as reported in columns (3) and (4) of the table. In 7, we obtain similar results when simply studying log sale price as the outcome and measuring participation using voting. While we obtain a weaker result when measuring participation using registration, due to the reversal of the effect for the group that registers the most, the broad pattern in Tables 6 and 7 points to an ability of the engaged to sell homes at a premium. This finding complements the previous result that they buy at a discount, since both a higher sale price Q_{t+1} and a lower purchase price Q_t raise the rate of housing appreciation. The higher quality-adjusted premium earned at

sale may reflect greater patience in waiting for strong offers or greater effort in staging the home to attract such offers.

Capital Expenditures/Investments. Third, homeowners may actively invest in their properties. Higher I_t directly increases the effective growth rate of housing quality and, therefore, realized appreciation. This channel encompasses both observable investments, such as renovations, and unobserved improvements that are capitalized into transaction prices. Using American Housing Survey data, columns (1) and (2) of Table 8 show that individuals who exhibit higher civic engagement generate higher appreciation. Because the AHS does not include direct measures of voter participation, we rely on related measures of civic engagement, such as talking to a local politician, volunteering, and working with neighbors to solve neighborhood problems. In Table IA14, we validate that the relationship between appreciation and civic engagement is indeed monotonic in the number of civic engagement activities. Columns (3) and (4) of Table 8 show individuals undertake greater capital expenditures on home improvements. Differences in capital expenditures explain approximately 25–40 percent of the observed appreciation gap, though they do not fully eliminate it. In addition, some of the remaining gap may reflect the capitalization of owner effort or “sweat equity.”

Compensated Risk. Finally, households may differ in their exposure to housing market risk through the distribution of Q_{t+1} . While the expression in Eqn. 4 depends on $\mathbb{E}[Q_{t+1}]$, realized returns also reflect variation in the dispersion of price outcomes. Households that select into markets or properties with higher variance in Q_{t+1} will, on average, experience higher realized appreciation if these risks are compensated. Consistent with this mechanism, Table 9 shows that the variance of residual housing appreciation increases monotonically with political participation, indicating that higher returns among electorally engaged homeowners are accompanied by greater exposure to housing market risk rather than safer investment choices.

The evidence presented in this section suggests that differences in housing wealth accumulation are closely tied to how homeowners engage with housing markets. Electorally engaged homeowners make systematically different housing decisions: they purchase lower-priced and potentially undervalued properties, invest more in housing capital, and assume greater housing market risk. These differences in market behavior are associated with systematically higher appreciation. In the next subsection, we examine whether deeper psychological and cognitive dispositions help account for these patterns of active engagement.

6.3 What's Behind Active Engagement? Psychological and Cognitive Dispositions

This subsection turns from economic resources and observed housing-market behavior to psychological and cognitive dispositions as a potential explanation for the political participation–appreciation gradient. The preceding analysis showed that the relationship is not explained by income, wealth, or credit, and that electorally engaged homeowners behave differently in housing markets. This shifts attention toward whether underlying dispositions and beliefs help account for those behavioral differences.

Electorally Engaged Homeowners are More Educated – But Education Does Not Have Explanatory Power. Education is a natural candidate mechanism linking political participation and economic outcomes. More electorally engaged individuals are modestly more educated: participating in seven elections is associated with roughly seven additional months of schooling relative to minimal participation. This relationship is robust to controls for demographics and geography (Table IA27).

Yet education does not explain the participation–appreciation gradient. Columns (3) and (4) of Table IA8 show that conditioning on years of schooling leaves the estimated relationship between political participation and housing appreciation essentially unchanged. If anything, once political participation is taken into account, education is weakly negatively associated with housing appreciation.

To place this result in broader context, we draw on the Understanding America Study (UAS) to examine the role of education and other psychological and cognitive dispositions in homeownership decisions. Figure 6 shows that although education initially appears predictive of homeownership, its explanatory power largely disappears once personality traits and behavioral factors are taken into account. Indeed, conditional on income and wealth, personality traits explain a substantially larger share of the variation in homeownership decisions – measured by incremental R-squared – than does education. In this light, it is not surprising that education has limited explanatory power for the political participation–appreciation gradient. Schooling may proxy for broad differences in socioeconomic attainment, but it does not appear to capture the underlying dispositions that shape housing outcomes, much less the combination of traits that jointly structure civic incorporation and market behavior. This points toward a different set of candidate mechanisms – namely personality traits, beliefs, financial literacy, and perceived agency – which we examine next.

The Role of Psychological Dispositions and Beliefs. Having shown that education has limited explanatory power and that electorally engaged homeowners differ in how they engage with housing markets, we next ask whether deeper psychological and cognitive dispositions help account for these behavioral differences. Traits such as personality, financial literacy, beliefs about economic and political institutions, and perceived agency are often linked to both economic decision-making and civic engagement. This raises the possibility that the participation–appreciation gradient may partly reflect dispositions that shape how homeowners perceive, evaluate, and act on opportunities in housing markets, rather than differences in financial resources or schooling alone.

To examine this possibility, we field an original survey that jointly measures homeowners’ housing histories, political participation, and a broad set of psychological and cognitive traits (Appendix B). The survey allows us to observe dimensions of engagement unavailable in the administrative data, including financial literacy, Big Five personality traits, beliefs about markets and democracy, and perceived personal agency.

Table 10 examines whether the participation–appreciation gradient in the survey data is explained by observable characteristics. Column (1) shows that homeowners who vote more frequently report significantly higher annual appreciation: the difference between full participation in elections and no participation (a one-unit increase in *TimesVotedNormalized*) is associated with roughly 2.0 percentage points higher annual returns. This relationship remains stable as controls are added sequentially in columns (2)–(4): income, demographic characteristics, financial literacy, and flexible demographic fixed effects leave the coefficient essentially unchanged, ranging between 2.0 and 2.2 percentage points and remaining statistically significant. Consistent with the administrative-data results, demographic and financial characteristics therefore do not account for the gradient.

Column (5) then adds fixed effects for different combinations of the respondents’ Big Five personality traits and beliefs about the economy, democracy, and personal agency. Collectively, we call these variables “psychographic” variables. The coefficient on *TimesVotedNormalized* declines from 0.020–0.022 to 0.014 and loses statistical significance, a reduction of roughly 30–36 percent, although full subsumption cannot be strictly ruled out due to the loss of significance. Psychological traits and beliefs therefore appear to account for a meaningful share of the participation–appreciation relationship. At the same time, the remaining point estimate suggests that these dispositions might not fully subsume the behavioral mechanisms documented above, and that the relevant profile of jointly engaged individuals may involve complex, nonlinear combinations of traits not fully captured by standard measures.

To shed further light on which attitudes and dispositions characterize these individuals, Table 11 examines the relation between political participation, housing returns, and a range of beliefs and psychological traits. The results point primarily to civic and democratic norms. Individuals who both participate more in elections and experience higher housing appreciation are more likely to view voting as a civic duty and to believe in the importance of democracy. By contrast, financial prudence, views about the economy, and perceived personal or community agency do not significantly distinguish this group. Among psychological traits, the picture is similar: the interaction between voting frequency and housing returns is unrelated to most Big Five traits, risk aversion, and financial literacy. Two traits do stand out, however: the interaction is negatively associated with conscientiousness and positively associated with neuroticism. Taken together, these results suggest that psychological dispositions and beliefs help characterize the kind of homeowner who is jointly more politically and economically engaged, even though which traits and how they combine likely vary across individuals in ways more complex than our linear specifications can capture.

7 Discussion & Concluding Remarks

Our results show that politically-engaged homeowners systematically experience higher house price appreciation than less-engaged homeowners. We discuss the implications of this political-economic alignment for housing policy and democratic responsiveness. Our discussion is organized around three statistics that follow from our main empirical results.

The first statistic summarizes the extent to which politically-engaged homeowners value policies that foster growth in the value of housing. Specifically, we use the estimates from Tables 2 and 3 to calculate the difference in lifetime housing wealth accumulation between the most and least politically engaged groups summarized in Table 1. If we consider a 40-year horizon and hold all other observed characteristics of the person, the property, and the market fixed, then this difference equals $e^{40 \times [\beta_{Most} - \beta_{Least}]}$. Taking the baseline estimates in column (1) of Panel A of Table 2, this calculation implies that the homeowners who register the most would have accumulated 77% more housing wealth compared to homeowners who register the least. Likewise, the homeowners who vote the most would have accumulated 22% more housing wealth compared to homeowners who vote the least. Given the high average growth rate in home values of around 8% shown in Table 1, this difference can be quite large in dollar terms, implying, for example, that a \$100,000 home purchase yields a nominal difference in wealth of \$539,715 to \$1.9 million over 40 years.

The second statistic summarizes the extent to which the engaged could exert disproportionate

influence over pro-housing-wealth policies by participating at a higher intensity. We specifically calculate the share of political participation accounted for by each group in Table 1. Accordingly, those who register the most account only 63% of people but 77% of registrations, while those who vote the most account for only 51% of people but 73% of votes.³ So, in practice, the principle of one-person-one-vote appears not to hold. While this finding is well-known in the political economy literature, our contribution is to link a disproportionate share of political participation to a disproportionate share of wealth accumulation.

The third statistic forms a bridge from our in-sample implications to implications for the entire U.S. electorate, and it implies that the effects we document could, when scaled, be large enough to move aggregate policy outcomes. Specifically, we use the facts that the homeowners who register the most account for 63% of our sample, as mentioned above, and that homeowners themselves account for around two-third of households since 1980, on average (Housing Vacancy and Homeownership Survey). Combining these two statistics implies that the most-engaged homeowners would account for roughly 41% of households. However, as already mentioned, the most-engaged also account for 77% of registrations in our sample of homeowners, and, moreover, homeowners themselves make up 75.23% of all registered voters (2020 CPS Voting and Registration Supplement). So, putting things together, the most-engaged homeowners account for 58% of all registrations, which is around one-and-a-half times their share in the population.

Recapping, our results show that homeowners who are more electorally engaged capture a disproportionate share of aggregate housing wealth growth, while less electorally represented homeowners – despite participating in the same housing markets – experience persistently lower appreciation. This divergence is not explained by income, wealth, race, partisanship, neighborhood characteristics, or local housing market conditions. As a result, the effective housing constituency that policymakers observe and respond to is skewed toward households who grow their housing wealth faster.

Specific Implications for Housing Policy

Our findings may help explain why policies that protect or enhance housing wealth – such as restrictive land-use regulations, opposition to density, or homeowner-focused tax advantages – remain politically durable even in contexts of widespread affordability pressures. Because political participation is associated with more effective housing market behavior – such as purchasing

³Explicitly, let p denote the probability that a person participates politically over any given time period. Let w_p denote the share of people who participate with intensity p . Then the share of participation accounted for by group p is $\frac{w_p \cdot p}{\sum_p w_p \cdot p}$, which yields the statistics described in the text.

undervalued properties, timing transactions more successfully, and investing in housing capital – policies that disproportionately respond to engaged constituencies may further widen gaps in housing wealth accumulation. Over time, this dynamic risks entrenching housing wealth as a latent political cleavage, where those who benefit most from housing markets are also those most able to shape the rules governing them.

The findings also suggest that housing policy debates framed purely around tenure status – such as homeowners versus renters – miss an important dimension of inequality within homeownership itself. Less electorally represented homeowners resemble renters in that they experience lower housing appreciation and are less likely to influence local housing decisions. Yet they are often assumed to share the same interests as higher-return, politically engaged homeowners. This misalignment may contribute to policy designs that inadequately address within-tenure disparities, such as differential exposure to housing market volatility or unequal access to information and support during housing transactions.

From a policy perspective, these findings underscore the importance of broadening political participation in housing-relevant decision-making. Interventions that lower barriers to participation – such as simplifying voter registration, expanding civic outreach in housing-vulnerable communities, or institutionalizing channels for resident input beyond traditional public meetings – may alter not only democratic representation but also the distributional consequences of housing policy. More fundamentally, recognizing political participation as a determinant of housing outcomes suggests that housing policy cannot be fully effective without addressing disparities in political voice.

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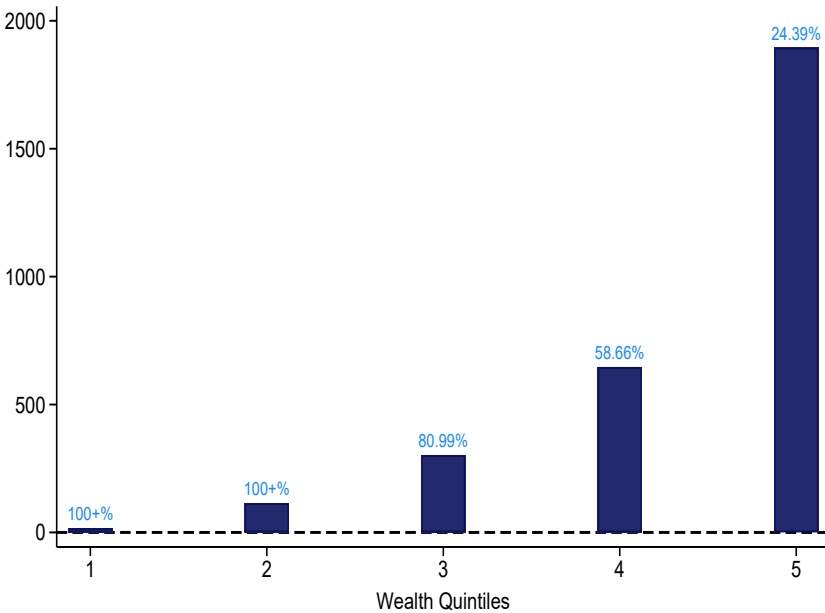
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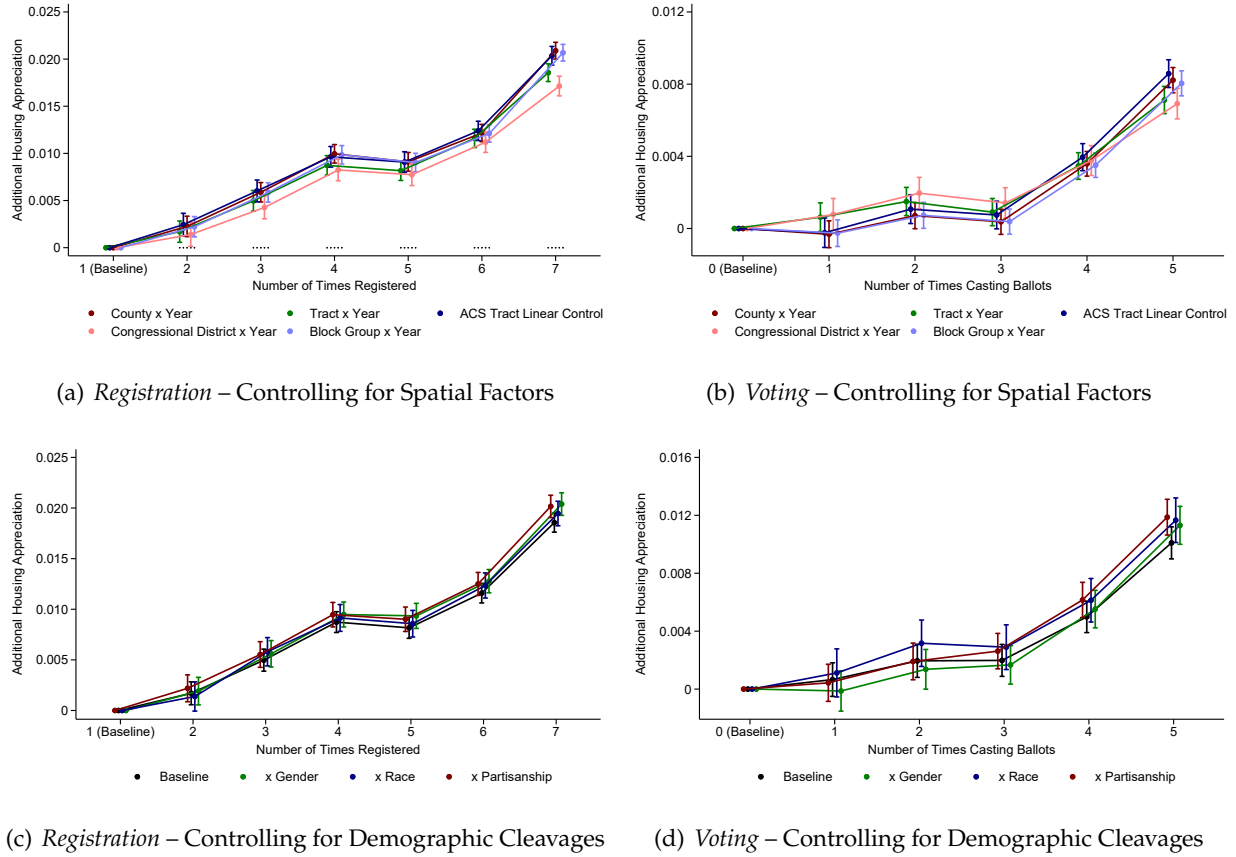
Figures and Tables

Figure 1. Net Housing Wealth and Net Wealth of Households



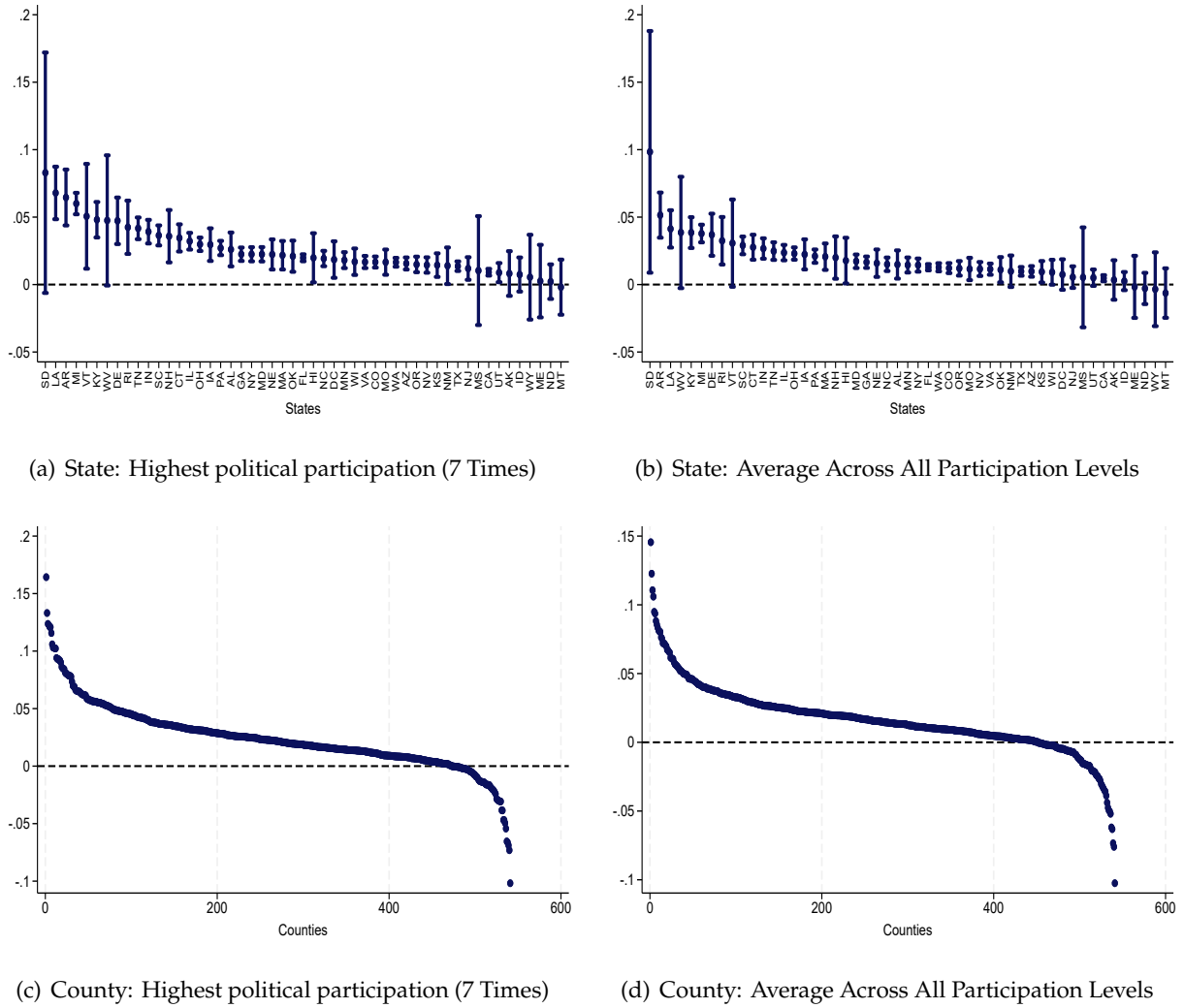
Notes: This figure reports the differences in net wealth across wealth quintiles with the data from Survey of Consumer Finances in 2022. The fraction of net housing wealth in net wealth of households is presented on top of each bar.

Figure 2. Relationship between Electoral Participation and Annual Housing Appreciation



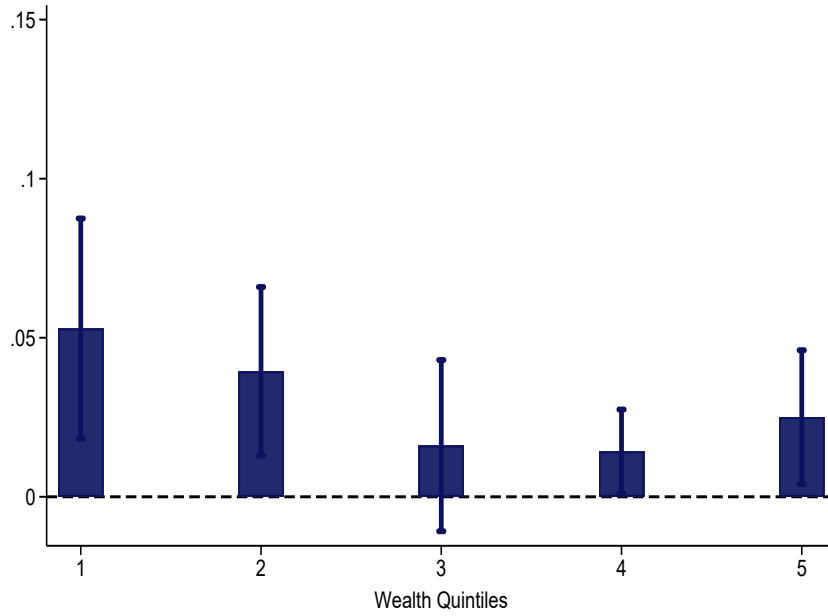
Notes: This figure plots coefficient estimates from regressions of annualized housing appreciation on measures of electoral participation, defined by the number of elections in which a homeowner participates in the electorate. Panels (a) and (b) present the baseline relationship between electoral participation and realized annual housing appreciation under alternative spatial controls. Panels (c) and (d) present the robustness of this participation–appreciation gradient to the inclusion of additional controls capturing traditional political and demographic cleavages, including partisanship, race and ethnicity, and gender. The plotted coefficients correspond to indicators for the number of elections in which an individual participates, relative to the omitted reference group. Panels (a) and (c) measure electoral participation using voter registration. Panels (b) and (d) measure electoral participation using votes in presidential elections. All specifications condition on birth-year fixed effects, holding-period fixed effects, and location-by-sale-year fixed effects, so the estimates reflect excess appreciation relative to other homes sold in the same geography and year and held for the same duration. The estimates shown in Panel (a) and (b) are also reported in Tables IA1 and 3, while the estimates shown in Panels (c) and (d) are reported in Tables IA3, IA4, and IA6; the baseline estimates reproduced for comparison in Panels (c) and (d) correspond to Table 3, Panel A. Across all panels, coefficients represent differences in annual housing appreciation (in percentage points) associated with each level of electoral participation, relative to the reference category. Error bars indicate 95 percent confidence intervals, with standard errors clustered at the tract level.

Figure 3. Coefficients of Baseline Results by State and County

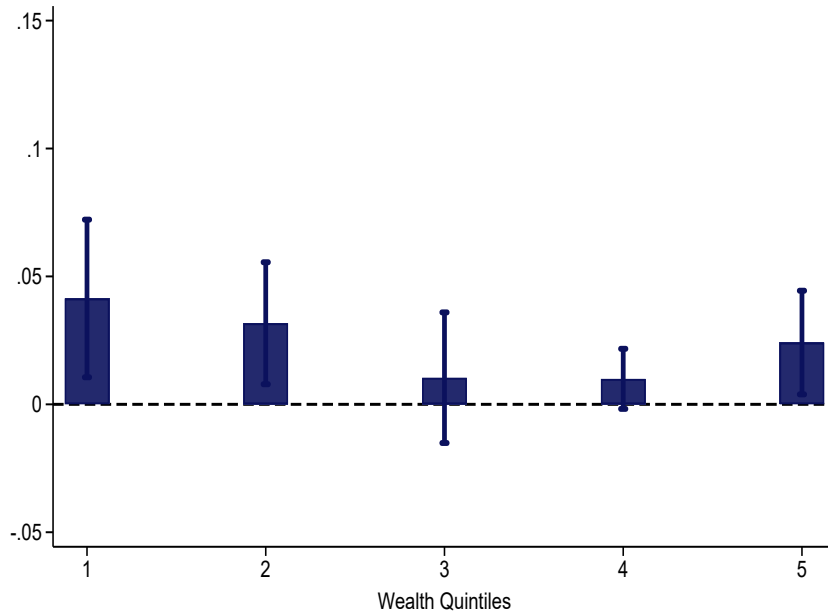


Notes: This figure reports how the estimated relationship between political participation and housing appreciation varies across states and counties. For each geographic unit, we estimate the relationship between annualized housing appreciation and political participation using the same measure of participation and the same set of controls as in the main specification. Panel (a) reports, for each state, the coefficient associated with the highest level of political participation. Panel (b) reports, for each state, the average appreciation gain associated with political participation, computed as the inner product of the vector of voter shares across participation levels, $\vec{p}$, and the corresponding vector of estimated appreciation coefficients, $\vec{\beta}$. Panels (c) and (d) repeat the same exercise at the county level. Because the specification includes multiple fixed effects, we restrict the county-level analysis to counties with more than 750 observations to avoid estimation problems arising from insufficient sample size. Panel (c) reports the county-level coefficient associated with the highest level of political participation, defined as seven registrations between 2014 and 2020, while panel (d) reports the corresponding county-level average appreciation gain. All estimates are obtained by re-estimating the paper's baseline specification (Table IA1) separately for each state and county.

Figure 4. Coefficients of Regression by Wealth Quintiles



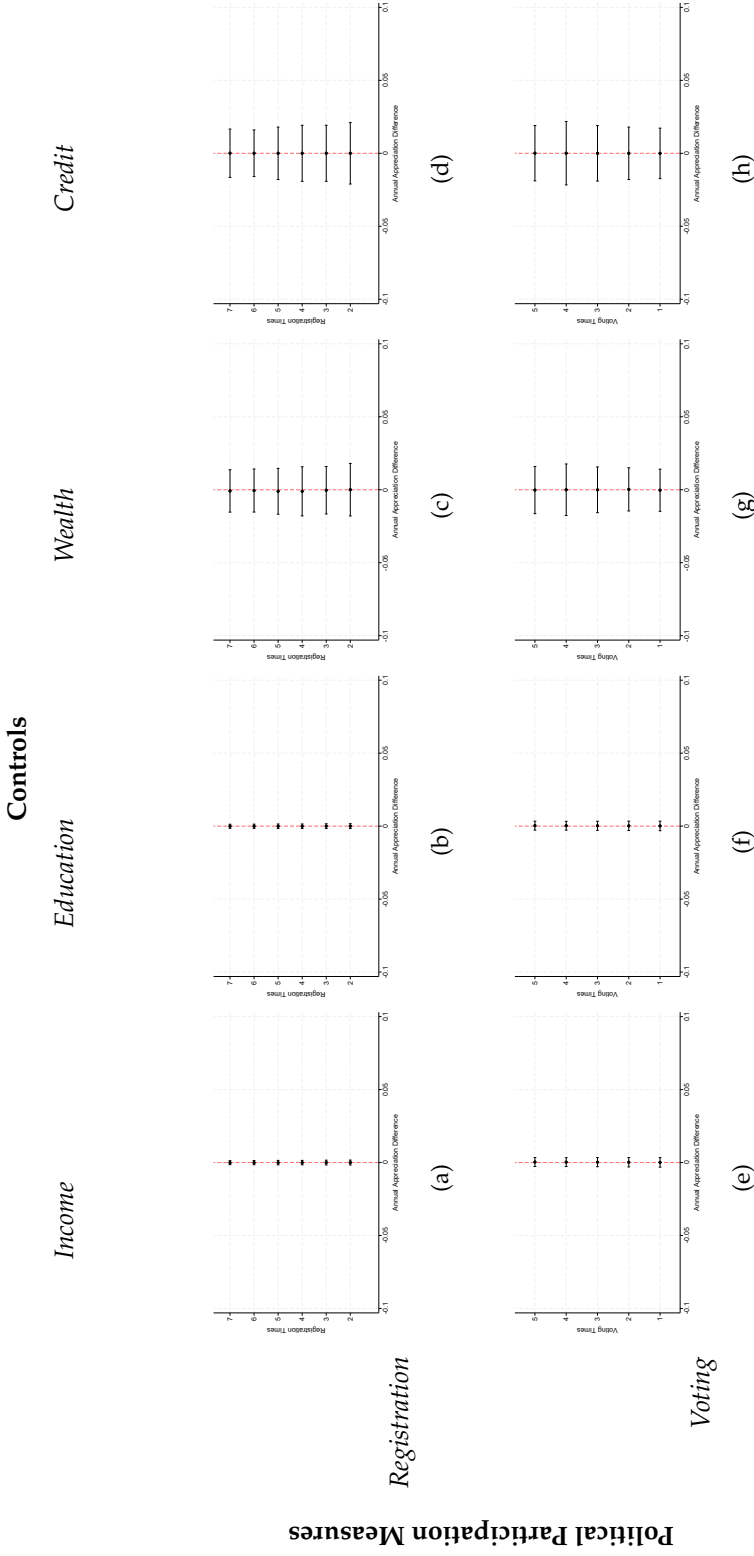
(a) Highest political participation (7 Times)



(b) Average Across All Participation Levels

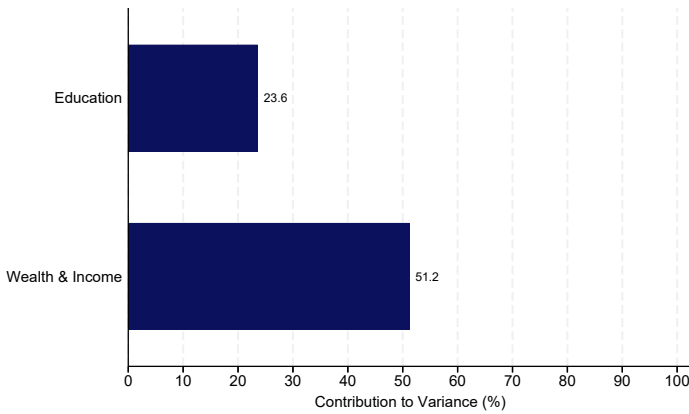
Notes: This table reports regression results of housing appreciation on political participation following Eqn. 2 across different levels of net wealth. Wealth is measured using a net housing wealth proxy, defined as home value minus the total stock of liabilities observed in credit records for homeowners in North Carolina. Panel (a) reports the coefficient of highest political participation (7 times). Panel (b) reports the group-average return, which is the inner product of the vector of fractions of voters in different political participation level $\vec{p}$ and the vector of coefficients of appreciation gains $\vec{\beta}$.

Figure 5. Comparison Between Coefficients with and without Controls

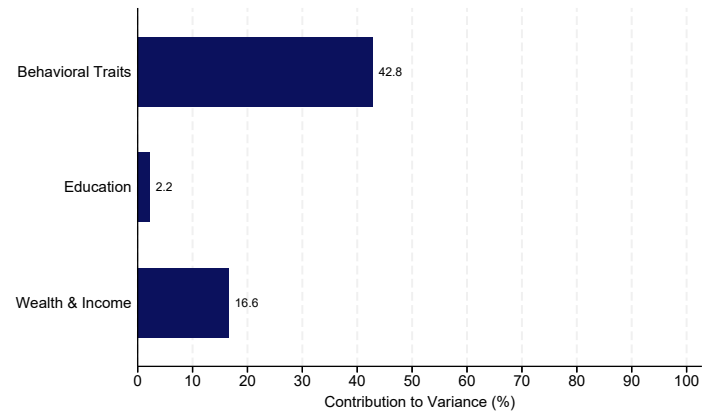


Notes: This figure reports the normalized difference between the estimated political participation–appreciation coefficients obtained with and without additional controls for economic resources. Political participation is measured in two ways: by the number of years an individual is observed as a registered voter and by the number of presidential elections in which the individual casts a ballot. In each case, we re-estimate the baseline specification relating annualized housing appreciation to political participation while conditioning on fixed effects for the intersection of sale year-month and county, birth year, and holding period, and then compare the coefficients before and after adding the relevant control. The top row presents results using registration as the measure of political participation, while the bottom row presents results using voting frequency. The four columns correspond to income, education, wealth, and credit controls, respectively. Income is obtained from HMDA. Education is obtained by L2 through a combination of direct surveys and proprietary imputation methods. Wealth is measured using a net housing wealth proxy, defined as home value minus the total stock of liabilities observed in credit records for homeowners in North Carolina. Credit is measured using credit scores from the same credit-bureau records. A normalized difference close to zero indicates that adding the corresponding control does not materially change the estimated appreciation gradient across levels of political participation. Confidence intervals are at the 95 percent level.

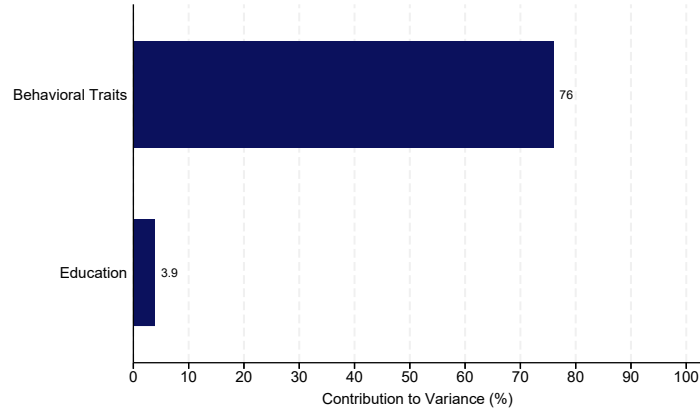
Figure 6. Variance Decomposition of Homeownership



(a) Decomposition without Behavioral Traits



(b) Decomposition with Behavioral Traits



(c) Decomposition Beyond Income & Wealth

Notes: This figure reports results from a variance decomposition of home ownership for three set of components: behavioral factors, education, wealth & income. The charts below show how much variance in home ownership is explained by each component by inferring the R-squared from each corresponding regression. Panel (a) presents the decomposition result without adding personality traits. Panel (b) presents the similar specification of panel (a) but adding personality traits. Panel (c) presents the decomposition of variance over wealth.

Table 1. Summary Statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Measurement with Registration				Measurement with Voting			
	Low $\in \{1, 2\}$	Medium $\in \{3, 4, 5\}$	High $\in \{6, 7\}$	Overall	Low $\in \{0, 1\}$	Medium $\in \{2, 3\}$	High $\in \{4, 5\}$	Overall
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Panel A: Characteristics of Voters								
Age of Buyers	42.760	41.460	41.001	41.309	42.134	41.219	43.118	42.362
Male	0.681	0.674	0.699	0.691	0.710	0.703	0.691	0.698
White	0.627	0.637	0.649	0.643	0.550	0.616	0.674	0.632
Black	0.029	0.028	0.029	0.029	0.028	0.032	0.031	0.030
Hispanic	0.057	0.061	0.058	0.059	0.083	0.071	0.050	0.063
Democrat	0.261	0.230	0.256	0.250	0.188	0.235	0.292	0.254
Republican	0.301	0.271	0.305	0.296	0.215	0.270	0.362	0.306
N	273,671	660,576	1,612,421	2,546,668	328,420	493,685	845,766	1,667,871
Panel B: Characteristics of Transaction Records								
Log(Sale Price)	12.402	12.453	12.405	12.417	12.482	12.466	12.377	12.424
Log(Purchase Price)	12.137	12.164	12.063	12.097	12.186	12.165	12.015	12.093
Winsorized Annual Return	0.084	0.086	0.095	0.091	0.083	0.076	0.081	0.080
Holding Years	6.111	6.277	7.480	7.020	6.030	6.737	7.943	7.206
N	336,005	821,881	1,991,554	3,149,440	415,727	629,237	1,063,483	2,108,447

Notes: This table presents the summary statistics for the sample used to estimate how political participation relates to housing appreciation throughout the paper. Panel A reports the demographic features of the dataset, retrieved from the L2 data. Panel B reports the characteristics of transaction records from CoreLogic. The minimum holding year is set as 0.5 year while the annual appreciation is winsorized at the 1% tail. We identify the intensity of democratic participation by both voter registration observed from 2014 to 2020 and the frequency of casting ballots at the presidential general election from 2000 to 2016, retrieved from the voting history dataset of L2 as of 2020. Columns (1)–(4) report the summary statistics for different levels of registration, while columns (5)–(8) report the statistics for voting.

Table 2. Annual Housing Appreciation Along Different Levels of Political Participation, Measured by Registration

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Panel A: Tract-Level Fixed Effects				
1(<i>TimesRegistered</i> = 2)	0.00170*** (0.00058)	0.00154 (0.00143)	0.00121 (0.00141)	0.00341*** (0.00091)
1(<i>TimesRegistered</i> = 3)	0.00497*** (0.00056)	0.00455*** (0.00139)	0.00296** (0.00133)	0.00721*** (0.00087)
1(<i>TimesRegistered</i> = 4)	0.00873*** (0.00052)	0.00685*** (0.00127)	0.00755*** (0.00127)	0.01104*** (0.00083)
1(<i>TimesRegistered</i> = 5)	0.00816*** (0.00053)	0.00602*** (0.00132)	0.00762*** (0.00127)	0.01129*** (0.00083)
1(<i>TimesRegistered</i> = 6)	0.01159*** (0.00049)	0.01019*** (0.00121)	0.01142*** (0.00118)	0.01462*** (0.00078)
1(<i>TimesRegistered</i> = 7)	0.01856*** (0.00048)	0.01518*** (0.00115)	0.01812*** (0.00113)	0.02063*** (0.00078)
N	3,231,474	552,068	738,211	1,223,904
Birth Year FE	Yes		Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes
Panel B: Congressional District-Level Fixed Effects				
1(<i>TimesRegistered</i> = 2)	0.00222*** (0.00055)	0.00143 (0.00106)	0.00137 (0.00113)	0.00339*** (0.00080)
1(<i>TimesRegistered</i> = 3)	0.00586*** (0.00052)	0.00409*** (0.00103)	0.00373*** (0.00108)	0.00795*** (0.00076)
1(<i>TimesRegistered</i> = 4)	0.00985*** (0.00050)	0.00764*** (0.00095)	0.00985*** (0.00104)	0.01112*** (0.00072)
1(<i>TimesRegistered</i> = 5)	0.00903*** (0.00050)	0.00731*** (0.00099)	0.00805*** (0.00104)	0.01090*** (0.00072)
1(<i>TimesRegistered</i> = 6)	0.01211*** (0.00047)	0.00986*** (0.00090)	0.01160*** (0.00095)	0.01423*** (0.00068)
1(<i>TimesRegistered</i> = 7)	0.02068*** (0.00045)	0.01674*** (0.00085)	0.02128*** (0.00091)	0.02294*** (0.00067)
N	2,736,367	443,259	600,734	1,042,304
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Congressional District × Sale Year FE	Yes	Yes	Yes	Yes
Panel C: Block Group-Level Fixed Effects				
1(<i>TimesRegistered</i> = 2)	0.00140** (0.00064)	-0.00047 (0.00186)	0.00103 (0.00170)	0.00346*** (0.00107)
1(<i>TimesRegistered</i> = 3)	0.00427*** (0.00062)	0.00206 (0.00181)	0.00259 (0.00163)	0.00685*** (0.00102)
1(<i>TimesRegistered</i> = 4)	0.00824*** (0.00058)	0.00453*** (0.00162)	0.00662*** (0.00155)	0.01096*** (0.00097)
1(<i>TimesRegistered</i> = 5)	0.00774*** (0.00059)	0.00546*** (0.00169)	0.00668*** (0.00156)	0.01163*** (0.00097)
1(<i>TimesRegistered</i> = 6)	0.01118*** (0.00055)	0.00823*** (0.00159)	0.01098*** (0.00145)	0.01439*** (0.00092)
1(<i>TimesRegistered</i> = 7)	0.01714*** (0.00053)	0.01291*** (0.00148)	0.01588*** (0.00140)	0.01969*** (0.00091)
N	2,208,476	268,695	397,437	739,600
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Block Group × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports the regression results of housing appreciation on political participation following Eqn. 2 with different levels of spatial fixed effects. Political participation is measured by voting registration frequency between 2014 and 2020. Panel A adds an extra sale year intersecting tract fixed effect, while Panel B looks as congressional district. Panel C adds block group-sale year fixed effect. Standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table 3. Annual Housing Appreciation Along Different Levels of Political Participation, Measured by Voting

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Panel A: Tract-Level Fixed Effects				
1(<i>TimesVoted</i> = 1)	0.00063 (0.00041)	0.00086 (0.00126)	0.00274** (0.00113)	0.00088 (0.00059)
1(<i>TimesVoted</i> = 2)	0.00150*** (0.00040)	0.00073 (0.00124)	0.00529*** (0.00110)	0.00155*** (0.00059)
1(<i>TimesVoted</i> = 3)	0.00091** (0.00038)	-0.00090 (0.00117)	0.00451*** (0.00105)	0.00142** (0.00058)
1(<i>TimesVoted</i> = 4)	0.00346*** (0.00038)	0.00204* (0.00114)	0.00747*** (0.00103)	0.00312*** (0.00059)
1(<i>TimesVoted</i> = 5)	0.00712*** (0.00038)	0.00413*** (0.00114)	0.01088*** (0.00102)	0.00502*** (0.00061)
N	1,982,227	288,478	404,038	703,016
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes
Panel B: Congressional District-Level Fixed Effects				
1(<i>TimesVoted</i> = 1)	-0.00026 (0.00038)	0.00033 (0.00085)	0.00136 (0.00086)	-0.00094* (0.00048)
1(<i>TimesVoted</i> = 2)	0.00073** (0.00037)	0.00211** (0.00084)	0.00303*** (0.00084)	-0.00055 (0.00047)
1(<i>TimesVoted</i> = 3)	0.00038 (0.00035)	-0.00032 (0.00079)	0.00340*** (0.00079)	0.00013 (0.00047)
1(<i>TimesVoted</i> = 4)	0.00351*** (0.00035)	0.00274*** (0.00077)	0.00754*** (0.00077)	0.00269*** (0.00047)
1(<i>TimesVoted</i> = 5)	0.00804*** (0.00035)	0.00625*** (0.00077)	0.01321*** (0.00077)	0.00657*** (0.00049)
N	2,318,554	541,849	675,042	1,051,486
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Congressional District × Sale Year FE	Yes	Yes	Yes	Yes
Panel C: Block Group-Level Fixed Effects				
1(<i>TimesVoted</i> = 1)	0.00078* (0.00045)	0.00111 (0.00149)	0.00151 (0.00130)	0.00212*** (0.00073)
1(<i>TimesVoted</i> = 2)	0.00196*** (0.00044)	0.00197 (0.00149)	0.00529*** (0.00128)	0.00232*** (0.00071)
1(<i>TimesVoted</i> = 3)	0.00141*** (0.00043)	0.00016 (0.00141)	0.00382*** (0.00123)	0.00254*** (0.00071)
1(<i>TimesVoted</i> = 4)	0.00377*** (0.00042)	0.00295** (0.00139)	0.00636*** (0.00119)	0.00348*** (0.00071)
1(<i>TimesVoted</i> = 5)	0.00692*** (0.00043)	0.00540*** (0.00139)	0.00855*** (0.00119)	0.00555*** (0.00075)
N	1,513,759	168,948	260,686	453,384
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Block Group × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports the regression results of housing appreciation on political participation following Eqn. 2 with different levels of spatial fixed effects. Political participation is measured by number of ballots cast in presidential elections between 2000 and 2016, conditional on being registered in 2020. Panel A adds an extra sale year intersecting tract fixed effect, while Panel B looks as congressional district. Panel C adds block group-sale year fixed effect. Standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table 4. Effect of Synthetic Housing Appreciation on Political Participation

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Participation	Participation	Participation	Participation
Panel A: Political Participation Measured by Number of Elections Registered				
Synthetic Appreciation	-0.23402** (0.10418)	-0.27958 (0.35123)	-0.14593 (0.30447)	-0.16640 (0.22529)
N	411,955	52,026	71,567	103,988
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes
Panel B: Political Participation Measured by Donation Intensity				
Synthetic Return	-0.03599 (0.02478)	-0.16250** (0.07885)	0.04450 (0.07261)	-0.11977** (0.05349)
N	411,955	52,026	71,567	103,988
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes
Panel C: Political Participation Measured by Voting Percent				
Synthetic Return	-0.00015 (0.01935)	-0.02928 (0.06129)	-0.07325 (0.05447)	0.01735 (0.04632)
N	316,291	35,479	49,145	77,738
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates of a regression of measures of political participation on synthetic hedonic price appreciation. Synthetic returns are constructed using a leave-one-county-out hedonic framework that applies national trends in the valuation of structural housing characteristics, thereby isolating the systematic, non-idiosyncratic component of housing returns. Realized synthetic returns are taken before 2014 to isolate the past appreciation and present political participation, which can indicate whether realized appreciation leads to voters more actively engaging in democratic activities. Panel A reports the result in voting registrations. Panel B reports the result for donation intensity and panel C reports the result for percentage of voting in all elections since 2014. The standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table 5. House Features by Political Participation

	(1)	(2)	(3)	(4)	(5)	(6)
	House Features					
	Living Sq.feet	Num of Rooms	Num of Bedrooms	Num of Bathrooms	Fireplace	Pool
Panel A: Measurement with Registration						
1(<i>TimesRegistered</i> = 2)	41.40676*** (11.70047)	-0.00603 (0.02407)	-0.00201 (0.00886)	-0.02038* (0.01085)	-0.00033 (0.00282)	-0.00078 (0.00183)
1(<i>TimesRegistered</i> = 3)	-13.78360 (11.05607)	-0.04409* (0.02283)	-0.00954 (0.00836)	-0.01676 (0.01026)	0.00104 (0.00268)	-0.00226 (0.00173)
1(<i>TimesRegistered</i> = 4)	-65.14389*** (10.41720)	-0.05895*** (0.02149)	-0.02488*** (0.00786)	-0.04456*** (0.00966)	-0.00682*** (0.00252)	-0.00376** (0.00163)
1(<i>TimesRegistered</i> = 5)	-67.10456*** (10.54179)	-0.06633*** (0.02179)	-0.03808*** (0.00796)	-0.03969*** (0.00978)	-0.00456* (0.00255)	-0.00552*** (0.00165)
1(<i>TimesRegistered</i> = 6)	-70.03260*** (9.98635)	-0.08816*** (0.02070)	-0.03967*** (0.00753)	-0.04948*** (0.00927)	-0.00651*** (0.00241)	-0.00837*** (0.00156)
1(<i>TimesRegistered</i> = 7)	-92.97775*** (9.66405)	-0.12408*** (0.01998)	-0.04835*** (0.00730)	-0.06749*** (0.00898)	-0.00897*** (0.00234)	-0.01236*** (0.00151)
N	730,080	338,499	579,164	667,525	852,517	852,517
Panel B: Measurement with Voting						
1(<i>TimesVoted</i> = 1)	-70.45776*** (9.56679)	0.04572 (0.03055)	0.00657 (0.00729)	-0.00294 (0.01334)	0.00493* (0.00267)	0.00046 (0.00197)
1(<i>TimesVoted</i> = 2)	-58.29124*** (9.75137)	0.02983 (0.03098)	0.01039 (0.00740)	-0.01252 (0.01357)	0.00418 (0.00272)	-0.00451** (0.00201)
1(<i>TimesVoted</i> = 3)	-68.90022*** (9.67750)	0.00190 (0.03050)	-0.00637 (0.00735)	-0.03081** (0.01346)	-0.00150 (0.00270)	-0.01087*** (0.00199)
1(<i>TimesVoted</i> = 4)	-71.37348*** (9.64328)	-0.03647 (0.03032)	-0.01253* (0.00733)	-0.03661*** (0.01342)	0.00095 (0.00269)	-0.01353*** (0.00199)
1(<i>TimesVoted</i> = 5)	-79.18461*** (9.88560)	-0.05926* (0.03119)	-0.02920*** (0.00749)	-0.02010 (0.01377)	-0.00143 (0.00276)	-0.01746*** (0.00204)
N	357,069	146,477	281,007	323,970	415,237	415,237
Birth Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes
County × Purchase Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Tract × Purchase Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table reports the incidence of specific house features across voters with different levels of political participation. House features are obtained from CoreLogic by limiting the observation year in the assessment records to the same year as that of purchase. The fixed effects are also using purchasing year. Panel A reports the results using voter registration frequency between 2014 and 2020 as the measurement of democratic participation, while Panel B reports the results using frequencies of casting a ballot at the presidential election from 2000 to 2016 as the measurement of participation. Columns (1)–(6) presents the regression results for specific house features, including square feet of living space (1), total number of rooms (2), number of bedrooms (3), number of bathrooms (4), indicator of fireplace (5) and indicator of swimming pools (6). The standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table 6. Market-Assessment Gap at Time of Purchase and Sale

	(1)	(2)	(3)	(4)
	Purchase		Sale	
	Assessed Every Year	All States	Assessed Every Year	All States
Panel A: Measurement with Registration				
1(<i>TimesRegistered</i> = 2)	-0.00432 (0.01083)	0.00017 (0.00681)	0.00823** (0.00354)	0.00350* (0.00199)
1(<i>TimesRegistered</i> = 3)	-0.01546 (0.00982)	-0.01408** (0.00604)	0.01717*** (0.00332)	0.00739*** (0.00188)
1(<i>TimesRegistered</i> = 4)	-0.00810 (0.00928)	-0.01386** (0.00586)	0.01572*** (0.00313)	0.00738*** (0.00176)
1(<i>TimesRegistered</i> = 5)	-0.01334 (0.00915)	-0.01153** (0.00577)	0.02612*** (0.00317)	0.01232*** (0.00181)
1(<i>TimesRegistered</i> = 6)	-0.01677* (0.00884)	-0.01295** (0.00538)	0.03060*** (0.00306)	0.01672*** (0.00171)
1(<i>TimesRegistered</i> = 7)	-0.04032*** (0.00870)	-0.03821*** (0.00533)	0.03324*** (0.00300)	0.01860*** (0.00170)
N	161,984	494,190	175,285	533,035
Panel B: Measurement with Voting				
1(<i>TimesVoted</i> = 1)	0.02431** (0.01087)	0.00468 (0.00761)	0.00800** (0.00340)	0.00266 (0.00214)
1(<i>TimesVoted</i> = 2)	0.02433** (0.01040)	0.00571 (0.00758)	0.03048*** (0.00359)	0.01417*** (0.00227)
1(<i>TimesVoted</i> = 3)	0.00841 (0.01065)	-0.00767 (0.00763)	0.02788*** (0.00357)	0.01239*** (0.00222)
1(<i>TimesVoted</i> = 4)	-0.00211 (0.01079)	-0.01291* (0.00735)	0.03338*** (0.00358)	0.01360*** (0.00220)
1(<i>TimesVoted</i> = 5)	0.00833 (0.01123)	-0.00801 (0.00777)	0.03178*** (0.00362)	0.01352*** (0.00224)
N	78,009	221,394	88,095	246,328
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes
County × Transaction Year-Month FE	Yes	Yes	Yes	Yes
Tract × Transaction Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates from a regression of the market-assessment gap – i.e., the gap between market values and assessment values – on political participation. The market-assessment gap is measured by the log ratio of market value and assessment value, where both values are measured contemporaneously at either the time of purchase or time of sale. Assessed values are obtained from CoreLogic assessment records. We further select a subsample in which assessments are done annually to rule out the possibility of the frequency of assessment affecting assessment value and eventually confounding the assessment value and assessment gaps. Panel A reports the results using voter registration frequency between 2014 and 2020 as the measurement of democratic participation, while Panel B reports the results using frequencies of casting a ballot at the presidential election from 2000 to 2016 as the measurement of participation. Columns (1)–(2) present the result at the time of purchase, and column (1) reports the result for states where assessments are done annually, while column (2) reports the result of the full sample. Columns (3)–(4) present the result at the time of sale, with column (3) reporting the result of the sample with annual assessment and column (4) reporting the full sample. The standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table 7. Purchase Prices, Sale Prices, and Excess Appreciation

	(1)	(2)	(3)
	Purchase and Selling Prices		Excess Appreciation
	Purchase Price	Sell Price	Excess Appreciation
Panel A: Measurement with Registration			
1(<i>TimesRegistered</i> = 2)	0.00029 (0.00217)	0.00262 (0.00199)	0.00323*** (0.00065)
1(<i>TimesRegistered</i> = 3)	-0.00308 (0.00206)	0.00315* (0.00188)	0.00569*** (0.00063)
1(<i>TimesRegistered</i> = 4)	-0.01214*** (0.00194)	0.00013 (0.00177)	0.00934*** (0.00060)
1(<i>TimesRegistered</i> = 5)	-0.01016*** (0.00197)	0.00141 (0.00179)	0.00841*** (0.00059)
1(<i>TimesRegistered</i> = 6)	-0.01285*** (0.00183)	0.00506*** (0.00167)	0.01127*** (0.00056)
1(<i>TimesRegistered</i> = 7)	-0.04061*** (0.00174)	-0.01465*** (0.00159)	0.01622*** (0.00055)
N	2,140,329	2,140,329	1,526,917
Panel B: Measurement with Voting			
1(<i>TimesVoted</i> = 1)	0.01333*** (0.00215)	0.01128*** (0.00195)	0.00135** (0.00065)
1(<i>TimesVoted</i> = 2)	0.01575*** (0.00209)	0.01753*** (0.00191)	0.00289*** (0.00063)
1(<i>TimesVoted</i> = 3)	0.01363*** (0.00203)	0.01928*** (0.00186)	0.00477*** (0.00061)
1(<i>TimesVoted</i> = 4)	0.00831*** (0.00199)	0.01649*** (0.00183)	0.00554*** (0.00061)
1(<i>TimesVoted</i> = 5)	-0.00153 (0.00202)	0.01424*** (0.00184)	0.00798*** (0.00063)
N	1,317,284	1,317,284	895,118
Birth Year FE	Yes	Yes	Yes
Race FE	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes
County × Transaction Year-Month FE	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes

Notes: This table reports estimates from a regression of home prices on political participation. Columns (1) and (2) report estimates for purchase and selling prices as dependent variables, respectively. Column (3) shows estimates with excess appreciation, defined as realized appreciation net of average annual local house price index growth, as the dependent variable. Standard errors (in parentheses) are clustered by tract. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 8. Role of Capital Expenditures

	(1)	(2)	(3)	(4)	(5)	(6)
	Annual Appreciation		Capital Expenditure		Annual Appreciation Minus CapEx	
Civic Group	0.00446*** (0.00170)		0.00119** (0.00058)		0.00285 (0.00178)	
Aggregate Engagement		0.00176*** (0.00055)		0.00070*** (0.00018)		0.00101* (0.00057)
<u>Controls</u>						
Income	Y	Y	Y	Y	Y	Y
Race and Education	Y	Y	Y	Y	Y	Y
Property Characteristics	Y	Y	Y	Y	Y	Y
N	12,113	12,068	12,113	12,068	12,113	12,068
SMSA FE	Y	Y	Y	Y	Y	Y
Birth Year FE	Y	Y	Y	Y	Y	Y
Holding Period FE	Y	Y	Y	Y	Y	Y

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports estimates of the relationship between housing appreciation or capital expenditures and local political and civic engagement measured from the American Housing Survey. The variable civic group is the indicator on whether a person is a member of a civic group and aggregate engagement is the number of local civic and political activities that the person engages in, including speaking to a local politician, engaging in neighborhood meetings, speaking with the groups causing neighborhood problems, etc. These activities reflect different aspects of local civic engagement, and we use an aggregate of these activities to measure an individual's engagement. Disaggregated estimates are presented in Appendix Table IA14. Column (1)–(2) report the result for winsorized annual return. Column (3)–(4) report the result for winsorized capital expenditure ratio, measured by total amount of money invested in house repairs divided by the current value of property. Column (5)–(6) report the difference of annual appreciation and capital expenditure ratio to indicate how much appreciation is driven by capital expenditure. The difference is first computed then winsorized and thus might not be the same as the difference of the previous two independently winsorized variables. Winsorization is at the 1% level. Controls include income, race, education level and also hedonic characteristics of the properties including the number of rooms, the size of the house, and the indicators for specific features (e.g., fireplace). The standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table 9. Realized Risk-Taking Behavior

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	$(r_t - \hat{r}_t)^2$	$(r_t - \hat{r}_t)^2$	$(r_t - \hat{r}_t)^2$	$(r_t - \hat{r}_t)^2$
Panel A: Measurement with Registration				
1(<i>TimesRegistered</i> = 2)	0.00172*** (0.00065)	0.00237 (0.00155)	0.00215 (0.00159)	0.00330*** (0.00098)
1(<i>TimesRegistered</i> = 3)	0.00373*** (0.00062)	0.00483*** (0.00152)	0.00231 (0.00151)	0.00517*** (0.00093)
1(<i>TimesRegistered</i> = 4)	0.00635*** (0.00059)	0.00525*** (0.00141)	0.00555*** (0.00146)	0.00800*** (0.00089)
1(<i>TimesRegistered</i> = 5)	0.00515*** (0.00059)	0.00499*** (0.00145)	0.00513*** (0.00143)	0.00730*** (0.00089)
1(<i>TimesRegistered</i> = 6)	0.00788*** (0.00055)	0.00735*** (0.00135)	0.00733*** (0.00135)	0.00994*** (0.00083)
1(<i>TimesRegistered</i> = 7)	0.01611*** (0.00054)	0.01275*** (0.00128)	0.01572*** (0.00131)	0.01664*** (0.00083)
N	2,736,367	443,259	600,734	1,042,304
Panel B: Measurement with Voting				
1(<i>TimesVoted</i> = 1)	-0.00007 (0.00025)	-0.00069 (0.00081)	0.00085 (0.00072)	0.00002 (0.00036)
1(<i>TimesVoted</i> = 2)	0.00042* (0.00025)	-0.00116 (0.00078)	0.00232*** (0.00070)	0.00010 (0.00036)
1(<i>TimesVoted</i> = 3)	0.00142*** (0.00024)	-0.00043 (0.00074)	0.00312*** (0.00068)	0.00143*** (0.00035)
1(<i>TimesVoted</i> = 4)	0.00174*** (0.00024)	0.00027 (0.00072)	0.00321*** (0.00066)	0.00132*** (0.00036)
1(<i>TimesVoted</i> = 5)	0.00341*** (0.00024)	0.00110 (0.00072)	0.00515*** (0.00066)	0.00227*** (0.00037)
N	1,707,987	249,725	356,217	583,974
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County $\times$ Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract $\times$ Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table presents estimates of a regression of second-order moments for property appreciation on political participation. The second moment is measured by $(r_t - \hat{r}_t)^2$ where $\hat{r}_t$ is the property appreciation estimated by the model in Eqn. 2. The second-order moments measure the differences in risk-taking across different levels of political participation. Panel A reports the results using voter registration frequency between 2014 and 2020 as the measurement of democratic participation, while Panel B reports the results using frequencies of casting a ballot at the presidential election from 2000 to 2016 as the measurement of participation. Column (1) reports the result for all voters. Column (2)–(4) report the result for partisan voters: column (2) reports the result for democrat voters. Column (3) reports the result for republican voters and column (4) reports the result for other voters. Standard errors in parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table 10. Annual Housing Appreciation and Political Participation in an Online Survey

	(1)	(2)	(3)	(4)	(5)
	Annual Appreciation				
TimesVotedNormalized	0.020** (0.010)	0.021** (0.010)	0.021** (0.010)	0.022** (0.010)	0.014 (0.010)
Controls					
FinancialLiteracy			-0.002 (0.007)	-0.009 (0.007)	-0.002 (0.007)
log(Income)		-0.006** (0.002)	-0.006** (0.003)		-0.005* (0.003)
CollegeEducated		0.000 (0.004)	0.000 (0.004)		0.000 (0.004)
Male		-0.001 (0.004)	-0.000 (0.004)		-0.000 (0.005)
Black		-0.006 (0.011)	-0.007 (0.011)		-0.009 (0.012)
Hispanic		-0.021 (0.013)	-0.022 (0.013)		-0.009 (0.009)
N	1195	1195	1195	1195	1195
R-squared	0.189	0.200	0.201	0.315	0.293
State FE	Y	Y	Y	Y	Y
Birth Year Group FE	Y	Y	Y	Y	Y
Holding Period Group FE	Y	Y	Y	Y	Y
Demographic FE				Y	
Psychographic FE					Y

Notes: The table reports results from an online survey assessing the external validity of the baseline results and heterogeneity by homeowners' psychological traits. The unit of observation is the survey respondent, each a U.S. homeowner at least 27 years old as of August 2025. The outcome variable is the annualized percent change between the home's current value and purchase price, where current value is based on imputed values from Redfin, Zillow, or other online real estate brokers as described in Section 3.4 and Appendix B. The key independent variable, TimesVotedNormalized, is the share of potential presidential elections over 2000–2024 in which the respondent could have voted, based on age. Columns (1)–(5) include fixed effects for state of residence, birth year (five-year increments), and holding period (five-year increments). Columns (2)–(4) sequentially add as controls: log income and other demographic indicators (CollegeEducated, Male, Black, Hispanic); an indicator for maximum score on the financial literacy quiz (FinancialLiteracy); fixed effects for bins defined by deciles of income and the aforementioned demographic indicators (Demographic FE); and fixed effects for combinations of psychographic characteristics, including the Big-5 personality traits, views on American economy and democracy, and views on self-agency. Respondents are weighted by survey completion time. Standard errors in parentheses are heteroskedasticity robust. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 11. Psychographic Characteristics of those Exhibiting Political and Economic Coengagement

Panel A: Attitudes							
	(1) Voting As Civic Duty	(2) Financial Prudence	(3) Democracy Important	(4) Economy Important	(5) Financial Agency	(6) Community Agency	(7) Happiness Agency
TimesVotedNormalized × Annual Return	0.361* (0.186)	-0.040 (0.215)	0.501*** (0.194)	0.127 (0.205)	-0.369 (0.279)	0.403 (0.370)	-0.070 (0.237)
Annual Return	-0.075 (0.056)	-0.151** (0.072)	-0.012 (0.062)	-0.046 (0.070)	-0.041 (0.103)	0.005 (0.102)	0.073 (0.088)
TimesVotedNormalized	0.158*** (0.018)	0.043** (0.020)	0.107*** (0.016)	0.057*** (0.017)	-0.013 (0.020)	-0.024 (0.024)	-0.020 (0.019)
N	1355	1356	1356	1356	1356	1355	1356
Panel B: Psychological and Cognitive Dispositions							
	(8) Risk Aversion	(9) Extraversion	(10) Agreeableness	(11) Conscientiousness	(12) Neuroticism	(13) Openness	(14) Financial Literacy
TimesVotedNormalized × Annual Return	-0.602 (1.552)	-0.041 (0.250)	-0.133 (0.309)	-0.995*** (0.327)	0.790*** (0.305)	-0.345 (0.302)	-0.069 (0.254)
Annual Return	0.042 (0.489)	-0.278*** (0.087)	-0.044 (0.095)	-0.133 (0.116)	0.025 (0.115)	0.178** (0.086)	-0.138* (0.078)
TimesVotedNormalized	0.176* (0.096)	0.009 (0.022)	-0.000 (0.023)	-0.012 (0.023)	0.024 (0.024)	0.038* (0.021)	0.047*** (0.018)
N	1356	1349	1351	1354	1350	1352	1356

Note: This table reports OLS estimates from regressions examining which attitudes and psychological dispositions characterize homeowners who are jointly politically and economically engaged. The unit of observation is the survey respondent, each a U.S. homeowner at least 27 years old as of August 2025. The data come from the original survey described in in Section 3.4 and Appendix B. Panel A examines respondents' attitudes toward civic participation, economic behavior, and personal agency. The dependent variables are standardized measures capturing views about voting as a civic duty, financial prudence, the importance of democracy and the economy, and perceived financial, community, or personal agency. Panel B examines psychological and cognitive traits, including risk aversion, the Big Five personality traits (extraversion, agreeableness, conscientiousness, neuroticism, openness), and financial literacy. The key independent variables are TimesVotedNormalized, defined as the share of presidential elections over 2000–2024 in which the respondent could have voted and did vote, and Annual Return, defined as the respondent's self-reported annualized percent change between the current value of their home (obtained from Redfin, Zillow, or other online real estate brokers) and its purchase price. The coefficient on TimesVotedNormalized × Annual Return captures whether individuals who both participate more frequently in elections and experience higher housing appreciation differ systematically in their attitudes or psychological traits. All specifications include the main effects of TimesVotedNormalized and Annual Return. The standard errors in the parentheses are heteroskedasticity robust. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Internet Appendix

A Detailed Data Section

The dataset used in our analysis is generated by two major steps: we first construct a dataset of property-level house appreciation, then we link it with voter registration data to identify the levels of political participation. The location of properties is identified by the longitude and latitude coordinates recorded in the tax assessment records, and then we pin down the spatial features, including county, tract, block group and congressional districts with GIS tools. The detailed description of the data generation process is shown below.

A.1 Construction of Housing Appreciation

We used property-level transaction records of transactions from CoreLogic. Each observation contains the unique identifier for the property, the name of the buyer and seller, the transaction amount and the types of properties and transactions. We limited our analysis to arms-length transactions of four types of residential properties: single-family home, duplex, apartment and condominium. To guarantee the transactions are arms-length, we dropped the transactions with corporate or investor buyers. We also dropped the observations labelled as inter-family-related transactions. Finally, we removed the foreclosure sales. Out of 190,179,043 observations in CoreLogic deeds data, there are 113,883,972 eligible transactions for the construction of appreciation data. We then further trimmed the data with the following procedure. As we aimed to generate the holding period appreciation of properties, one property had to appear at least twice in the dataset for us to observe the price and the time of purchasing the property P_b, t_b , and the corresponding price and time of sale P_s, t_s . The holding period return of a property is then computed by:

$$r = \frac{\log(P_s) - \log(P_b)}{t_s - t_b}$$

We aim to look at the properties that are purchased and sold, and therefore, we look at the properties appearing in the transaction records multiple times. The exception will be properties being associated with multiple transaction records on the same day. To avoid conflicting records, we drop the transaction records for these properties. After this round of filter, we have 77,794,157 observations. Finally, we looked at the properties whose buyers become sellers in subsequent transactions, linking the buyer's name and the seller's name, controlling the identifier of properties, and we generated a dataset of holding period appreciation for properties with 22,756,742 observations.

A.2 Identifying Political Engagement

We used L2 data to identify political participation. Our L2 data is generated by putting the 7-year panel of L2 data from 2014 to 2020, with 115,538,767 observations. The panel of each year contains the registered voters of that year. Each observation contains the unique L2 data identifier, name of the voter, political partisanship of each year, whether the voter appears in the L2 record for each year, and other forms of political participation, including the percentage of voting and a dummy for FEC donation each year.

The voters' political participation level is defined by the frequency of the agent's appearances in the L2 data over these years (for voter registration), the number of times casting a vote at presidential election from 2000 to 2016 (for voting times). The partisanship is aggregated by partisan affiliation documented by the L2 data over these years. A voter will be identified as Democrat (or Republican) only if the voter's partisan affiliation is Democrat (or Republican) for all the years when the voters are present in the L2 voter registration data.

A.3 Record Linkage Details: Housing Appreciation and Engagement

Record linkage between housing appreciation and political participation is possible because the L2 voter file and the CoreLogic property records share owners' first name, last name, and the longitude and latitude of the property address. We use these common fields to link individuals in the L2 data to buyers and sellers in CoreLogic's Deeds records.

We construct the linkage separately for buyers and sellers. For buyers, this procedure yields 14,877,689 unique observations linking an L2 identifier to a CoreLogic transaction record. For sellers, it yields 6,618,100 such observations. In both cases, we retain only the first person listed in the transaction in order to assign political participation to a single individual.

We then combine the buyer and seller linkages and remove duplicate L2 identifier–name pairs. To reduce the risk of false matches arising from different individuals sharing the same name, we also drop names associated with multiple L2 identifiers. This process yields 17,926,164 unique L2-CoreLogic links.

Finally, we use this linkage file to merge the appreciation data with the L2 panel described above, producing the baseline dataset used in the analysis, with 3,149,440 observations.

B Survey Appendix

This appendix provides additional detail on the survey evidence used in the analysis. We describe the administration of the survey and its structure, and we transcribe and explain the main classes of questions used to measure housing behavior, political and civic engagement, beliefs, personality traits, agency, and financial literacy.

B.1 Survey Administration

We designed and administered an original online survey to complement the administrative data used in the main analysis. The survey was implemented using Qualtrics and fielded in August 2025 through Prolific, an online recruitment platform that specializes in academic research and allows for targeted sampling based on prescreened demographic characteristics. We restricted recruitment to U.S. residents who report owning their home and being at least 27 years old, ensuring that respondents have meaningful exposure to both housing markets and political participation. Our raw sample includes 1,500 respondents, which we further restrict to respondents who: are not homeowners; have owned their home for over 50 years; and for whom we do not answer the questions that provide us with the dependent and independent variables used in our analysis.

Participation was voluntary and anonymous. Respondents first viewed an informed consent statement describing the purpose of the study – understanding the relationship between engagement in democratic institutions and engagement in economic decision-making – and were informed that the survey would take approximately ten minutes to complete. Respondents were free to skip any question and could exit the survey at any time without penalty. All procedures were approved by the UCSD’s institutional review board.

B.2 Survey Structure and Measures

The survey is organized into thematic blocks covering housing outcomes and effort, civic and political engagement, beliefs about institutions, personality traits, perceived agency, financial risk preferences, financial literacy, and background characteristics.

Housing outcomes and effort. Respondents report the year and price at which they purchased their current home (“*In what year did you buy your current home?*” “*What price did you pay for your home?*”) and the home’s current estimated market value as reported by online real estate platforms such as Zillow or Redfin (“*What is the current estimated value of your home according to an online real estate brokerage, such as Redfin or Zillow?*”). Using these responses, we construct self-reported measures

of housing appreciation. The survey also collects detailed information on engagement with the property or housing markets more broadly, including weekly time spent on home maintenance (*"In a typical week, how many hours do you spend on home maintenance?"*), total spending on non-routine repairs and improvements over the past two years (*"Over the past two years, how much did you spend in total on non-routine home repairs or home improvements?"*), and the number of homes viewed during the search for the current residence (*"How many homes did you look at when searching for your current home?"*). These questions are designed to capture active housing market behavior and investment effort that cannot be inferred from transaction data alone.

Civic and political engagement. To measure political participation, respondents report the number of general elections in which they participated between 2000 and 2024 (*"How many presidential elections did you participate in from 2000 through 2024?"*). In addition, respondents indicate whether they engaged in other civic activities over the past year, including contacting elected officials, attending protests or rallies, or participating in community service events (*"Did you do any of the following over the past year? Please check all that apply."*). These measures are used to relate housing outcomes to sustained political participation as well as to broader forms of civic engagement.

Beliefs, personality, and agency. The survey includes questions eliciting beliefs about the relationship between citizenship, the economy, and democratic institutions, such as whether voting or prudent financial decision-making is part of being a good citizen and whether ordinary people benefit from a strong economy or a functioning democracy. Personality traits are measured using a short Big Five battery, capturing openness, conscientiousness, extraversion, agreeableness, and emotional stability. Perceived agency is measured through agreement with statements emphasizing personal control over financial outcomes, community well-being, and overall happiness. These measures are used to assess whether subjective beliefs and perceptions of agency are jointly associated with political participation and housing outcomes.

Financial risk preferences and literacy. We assess financial risk tolerance using a standard self-reported risk-aversion question widely used in the literature. Financial literacy is measured using canonical questions on compound interest, inflation, and risk diversification.

Demographic characteristics. Respondents also report age, household income, state of residence, and educational attainment, as well as confirming homeownership status. These variables are used for descriptive purposes and as controls in the survey-based analyses.

C Measuring Political Participation

This appendix provides additional detail on how we operationalize political participation and assesses the robustness of our baseline measure to alternative definitions. Because political participation is a latent construct that cannot be directly observed, empirical analysis necessarily relies on observable manifestations of sustained political engagement. Our goal in this appendix is twofold: first, to clarify the rationale for our baseline measure; and second, to show that the core empirical patterns are not sensitive to how participation is proxied.

C.1 Political Participation Across Measures

Because political participation is a latent construct, our empirical analysis relies on observable proxies that capture sustained engagement with the electoral system. We focus on two complementary measures. The first is persistence in voter registration between 2014 and 2020, which captures continued incorporation into the electorate and the durable political visibility that comes with remaining registered over time. The second is realized electoral participation through voting behavior, measured by the number of presidential elections in which an individual is observed voting since 2000. Whereas registration reflects potential participation and institutional incorporation, voting captures repeated exercise of the franchise. Together, these measures represent closely related but distinct dimensions of sustained political participation.

The purpose of this subsection is to evaluate the correspondence across these measures and to assess whether our results depend on any one proxy in particular. Figure IA1 and Table IA11 therefore compares registration-based participation to other manifestations of political engagement, including voting frequency and political donation intensity. Across measures, the relationship is strongly monotonic: individuals who are registered across more elections also vote more frequently and are more likely to make political contributions.

Table IA11 Panel A relates our registration-based measure to political donation intensity, defined as the share of elections in which an individual makes a political contribution. Donation activity is a higher-cost and more expressive form of participation than registration or turnout, and therefore provides a stringent test of whether our baseline measure captures meaningful political participation. Donation intensity increases monotonically with the number of elections in which an individual is registered, mirroring the gradient observed in housing appreciation. Individuals who participate in the electorate across more elections are substantially more likely to donate, while those with minimal participation rarely do so.

Table IA11 Panel B compares registration-based participation to voting percentage, measured as the share of eligible elections in which an individual casts a ballot. Voting frequency likewise increases monotonically with our participation measure. This correspondence indicates that our registration- and voting-based measures are capturing the same broader dimension of sustained political engagement rather than idiosyncratic administrative timing, and it supports treating both as equally informative measures of political participation in the analysis.

C.2 Participation through Local Issues

The administrative measures of political participation focus on formal political participation. Using the 2013 American Housing Survey (AHS), we document that the accumulation of housing wealth is also correlated with civic engagement in local issues. Table IA14 relates annualized housing appreciation for AHS homeowners to several indicators of local civic engagement, including: membership in a civic group, contacting local politicians about neighborhood issues, gathering with neighbors to address local problems, speaking directly to the group causing those problems, attending neighborhood meetings, and engaging in volunteer service.

Across these different engagement margins, homeowners who are civically active around local issues systematically experience higher appreciation. Each engagement indicator enters with a positive coefficient, and several are statistically significant even after controlling for household income, race and education, property characteristics, and fixed effects for metropolitan area, birth year, and holding period. The “Aggregate Engagement” index, which captures the number of forms in which a homeowner engaged in any of the local-problem activities, is also positively and significantly associated with appreciation: homes owned by households that report any such engagement appreciate more quickly than those owned by otherwise similar but civically inactive households.

Column (8) in Table IA14 further distinguishes the intensity of local participation by counting how many distinct civic activities respondents report. The estimated appreciation premium is close to zero for households that engage in at most one activity, but it grows as civic involvement deepens: homeowners reporting two activities see modestly higher appreciation, those reporting three or four activities experience appreciably larger gains, and the premium remains elevated for those engaged in five activities. This gradient in housing returns with the intensity of local civic engagement mirrors the electoral-participation monotonic relationship that is the main object of the paper and further suggests that the housing-appreciation electoral divide is about the individual, rather than the context.

C.3 Participation through Administrative Processes

Excluding States with Automatic Registration. One concern is that variation in registration timing may reflect administrative changes rather than genuine political participation. To address this, we re-estimate the baseline specification after excluding states that adopted automatic voter registration during the sample period. Table IA15 shows that the participation–appreciation gradient remains virtually unchanged in both magnitude and monotonicity, indicating that the results are not driven by institutional changes in voter registration procedures.¹

Voter Purges. A related consideration is whether observed variation in registration timing reflects administrative voter purges rather than differences in sustained political participation. Voters may be removed from registration rolls for reasons such as inactivity or address changes and later re-register, potentially introducing mechanical variation in observed registration histories. To assess the relevance of such administrative processes, we examine the role of voter purges in the political participation–housing appreciation relationship (Table IA16). Accounting for purge-related registration disruptions leaves both the magnitude and the monotonic structure of the participation–appreciation relationship essentially unchanged, suggesting that voter list maintenance does not account for the main results.

D Additional Neighborhood-Level Robustness

D.1 Directly Controlling for Neighborhood Attributes

In Table IA20 we take a different approach and instead directly examine whether the political participation–appreciation relationship is accounted for by tract-level demographic correlates, including racial composition of the neighborhood. Column (2) augments the baseline specification with a comprehensive set of tract-level controls drawn from the ACS, including the Black population share, along with measures of ethnicity, labor market conditions, age structure, transfer receipt, homeownership, and income. As expected, all measures are correlated with appreciation at the tract level, but their inclusion does not materially affect the estimated participation coefficients: both their magnitudes and monotonic pattern remain essentially unchanged relative to the baseline. Like Table 3, this supports that the participation gradient is not subsumed by racial

¹No state had implemented automatic registration until 2016. The following states were removed in the robustness results presented in Table IA15: Alaska (2017), California (2018), Colorado (2017), Connecticut (2016), District of Columbia (2018), Georgia (2016), Illinois (2018), Maryland (2019), Massachusetts (2020), Michigan (2019), New Jersey (2018), New Mexico (2020), Nevada (2020), Oregon (2016), Rhode Island (2018), Vermont (2017), Virginia (2020), and Washington (2019).

composition or other tract-level characteristics, and that the main results are not driven by differential exposure to neighborhoods characteristics, including Black population shares. Instead, the estimates in Table IA20 suggest that the political participation-appreciation relationship persists within tracts after flexibly accounting for observable neighborhood demographics.

D.2 Neighborhood-level Home Values and Income

In Table IA17, we assess whether the political participation-appreciation relationship reflects spatial sorting into neighborhoods with systematically higher house values or incomes. We augment the baseline specification with tract-level log house values and median incomes from the ACS, and further allow their effects to vary flexibly across participation groups. Although both house values and incomes are strongly correlated with appreciation at the tract level, accounting for these factors does not materially alter the participation gradient. Estimated participation coefficients remain monotonic and economically similar to the baseline, indicating that the higher appreciation associated with greater political participation is not driven by residence in richer or higher-valued neighborhoods.

D.3 Neighborhood-level Education

Building on this, Table IA18 examines whether neighborhood human capital provides an alternative explanation for the participation gradient. The table introduces tract-level average years of education as an additional control and allows its association with appreciation to vary across participation groups, while progressively absorbing finer geographic fixed effects. As expected, tract-level education is strongly related to housing appreciation, and returns differ across more- and less-educated neighborhoods. Nonetheless, the participation coefficients remain stable in both magnitude and ordering. These results suggest that the political participation-appreciation relationship persists within tracts after flexibly accounting for neighborhood educational composition.

D.4 Black Neighborhoods, Partisan Neighborhoods

For a final robustness check, Table IA21 asks whether the participation gradient could simply capture differences in exposure to neighborhoods with varying racial composition, rather than differences tied to individual political participation. To examine this possibility, we compare appreciation across tracts with different racial makeups and estimate the participation gradient separately for voters of different races. Although appreciation is lower on average in neighborhoods with higher Black population shares, the association between participation and appreciation

remains positive and increasing within every partisan group.

Table IA22 conducts a parallel exercise for neighborhood partisanship, asking whether the participation gradient reflects differences in exposure to partisan surroundings rather than individual political engagement itself. We compare appreciation in Democratic- and Republican-leaning tracts and estimate the relationship separately by voter party affiliation. While average appreciation is notably lower in Republican-leaning neighborhoods, the relationship between participation and appreciation remains positive and monotonic within each partisan subgroup. The close correspondence of the participation estimates across party affiliations relative to our baseline estimates indicates that the core results are not primarily driven by partisan residential sorting, but instead by differences that persist within partisan neighborhood settings.

E Before and After Recovery from Great Recession

This appendix examines whether the baseline relationship between political participation and housing appreciation is externally valid to periods disconnected from the Great Recession. To assess this possibility, we split the sample based on whether the property sale occurred before or after the national housing market recovery. We define the post-recovery period as transactions occurring after 2014, when national house price indices had largely stabilized and recovered. We then re-estimate our baseline specification separately for pre-recovery and post-recovery subsamples.

Table IA23 reports the results. In both periods, housing appreciation increases close to monotonically with the degree of political participation. While overall appreciation levels differ across macroeconomic regimes, the relative ordering and magnitude of the participation coefficients remain remarkably stable. The estimated participation premium is larger in the post-recovery period, consistent with a greater role for active market engagement when housing markets are expanding, but the core pattern is already evident during the more volatile pre-recovery years.

These findings indicate that the political participation–appreciation gradient is not specific to the Great Recession period and remains present across distinct market environments.

F Excess Housing Appreciation over Neighborhood

This appendix examines whether the participation gradient reflects excess appreciation relative to local housing markets rather than differences in exposure to high-growth neighborhoods. While the main specifications already condition on fine-grained geographic fixed effects, we further assess whether electorally engaged homeowners outperform neighborhood benchmarks directly.

Specifically, we construct a measure of *excess* appreciation defined as the difference between a property’s realized annual appreciation and the average appreciation of other properties sold in the same census tract and year, matched on holding period length. This transformation isolates relative performance within narrowly defined local markets and removes any remaining influence of tract-level housing trends.

Table IA24 presents the results. In columns (1) and (2), where neighborhood and individual components are not separately identified, the participation–appreciation gradient is not visible – composition effects, in fact, blur the underlying relationship. Once neighborhood effects are accounted for, excess appreciation increases monotonically with political participation, mirroring the baseline gradient. Homeowners with greater political participation earn systematically higher returns than their neighborhood benchmarks, while those with lower participation systematically lag behind neighbors facing the same local market conditions.

The magnitude of excess appreciation is economically meaningful and statistically significant across specifications. Importantly, this pattern confirms that the participation–appreciation relationship does not arise from sorting into faster-growing neighborhoods, but instead reflects differential performance within the same local housing markets, and it is broadly consistent with the analysis presented in Section 5.6.

G Underrepresentation of non-homeowners

Table IA25 extends the analysis beyond heterogeneity within homeownership to consider political participation among individuals characterized by a lack of homeownership. Because the data are constructed by merging a homeowner transaction dataset with voter records, non-homeownership is necessarily inferred from non-appearance in the housing data, and thus measured with error and, as such, we consider this analysis suggestive. With this caveat in mind, the table nevertheless reveals a clear pattern. Individuals inferred to lack homeownership exhibit substantially lower levels of political participation, even after conditioning on birth cohort, demographics, and geographic fixed effects. These differences are not simply a mirror image of the participation gradients observed among homeowners, but instead point to a qualitatively distinct position in the political process. Whereas variation within homeownership reflects differences in engagement that map onto differential exposure to housing wealth accumulation, the lack of homeownership is associated with both minimal exposure to housing appreciation and persistently weaker political voice. This combination suggests that individuals outside homeownership are not merely less invested in housing markets, but are also less incorporated into the institutional channels through which

housing-related interests are represented. As a result, the effective housing constituency observed by policymakers is doubly selected: it is skewed toward homeowners, and within that group toward those with higher levels of sustained political participation, leaving individuals lacking homeownership structurally underrepresented in debates over housing costs, stability, and supply.

H Supplementary Results

Figures 2 and 5 presented visual results showing that demographic cleavages and economic resources do not explain the relationship between political participation and housing appreciation. This appendix summarizes in tabular form how socioeconomic and demographic characteristics relate to political participation. We present patterns for both measures of participation used in the paper: persistence in voter registration and realized electoral participation through voting.

Income. Tables IA26 and IA9 report the relationship between political participation and income. Individuals with higher levels of participation tend to have lower observed income at the time of home purchase. This relationship is robust to the inclusion of demographic controls for race and gender as well as geographic fixed effects at the county and tract level. The magnitude of this relationship attenuates as demographic and geographic controls are added but remains visible across specifications. Importantly, income does not explain the participation–appreciation gradient. When individual income is included as a control in the housing appreciation regressions, the estimated relationship between political participation and housing appreciation remains essentially unchanged. These results indicate that differences in household earnings do not account for the higher appreciation observed among electorally engaged homeowners.

Education. Tables IA27 and IA9 report results for years of schooling. Political participation is positively associated with education: individuals with higher participation levels are modestly more educated on average. This relationship is robust to the inclusion of demographic controls for race and gender as well as geographic fixed effects at the county and tract level. Despite this positive association, education does not account for the appreciation gradient. When years of schooling are included as a control in the appreciation regressions, the estimated relationship between political participation and housing appreciation remains stable. In some specifications, years of schooling are weakly negatively associated with housing appreciation once political participation is accounted for.

Wealth. Tables IA28 and IA9 examine the relationship between political participation and wealth. Similar to income, individuals with higher levels of participation tend to have slightly lower observed wealth on average. This relationship is robust to the inclusion of demographic controls for race and gender as well as geographic fixed effects at the county and tract level, though the magnitude of the difference declines once additional controls are included. As with income and education, including wealth directly in the appreciation regressions does not attenuate the participation–appreciation gradient. The estimated relationship between political participation and housing appreciation remains stable across specifications that control for wealth.

Credit Outcomes. Tables IA29 and IA9 report results for credit characteristics. Higher levels of political participation are associated with better credit outcomes, including higher credit scores and fewer indicators of financial distress. This relationship is robust to the inclusion of demographic controls for race and gender as well as geographic fixed effects at the county and tract level. These patterns suggest that the electorally engaged homeowners have somewhat stronger financial profiles along this dimension – yet this advantage does not drive their higher housing returns. When credit scores are included as controls in the appreciation regressions, the estimated relationship between political participation and housing appreciation remains unchanged. Credit constraints therefore do not account for the participation–appreciation gradient.

Heterogeneity by Gender. While controlling for gender does not change the core relationship we document, it is still informative to know if there is heterogeneity by gender. Table IA6 estimates our core relationship for men and women. Male homeowners experience slightly higher housing appreciation than female homeowners on average, a difference corresponding to approximately 0.43 percentage points higher annual appreciation for men, conditional on controls. Nevertheless, the participation–appreciation gradient remains present for both genders. Higher levels of political participation are associated with higher housing appreciation for both men and women, with somewhat larger returns to participation among men.

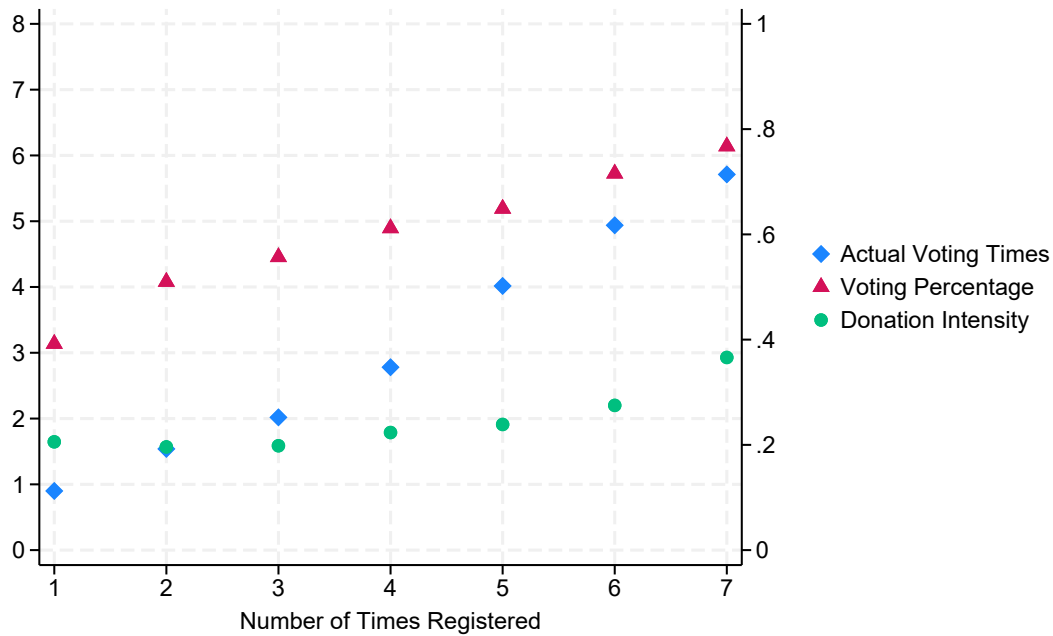
Heterogeneity by Race. Likewise, it is informative to know whether the participation–appreciation gradient is the same across racial groups. Table IA4 examines heterogeneity by race. Although racial disparities in housing appreciation are well documented, the estimated relationship between political participation and housing appreciation is virtually identical for Black homeowners.

Taken together, the results in this appendix are consistent with the paper’s main conclusion: across all specifications, socioeconomic and demographic characteristics – including income, ed-

education, wealth, credit outcomes, gender, and race – do not explain the relationship between political participation and housing appreciation. While some of these characteristics correlate with participation, controlling for them does not materially attenuate the participation–appreciation gradient.

Appendix Figures and Tables

Figure IA1. Correspondence Across Measures of Political Participation



Notes: This figure presents scatterplot estimates depicting the relationship between other forms of political participation and number of times registered. We present the results for: (1) actual voting history for even-year general elections from 2004 to 2018, (2) the percentage of voting over the period overlapping with registrations (2014–2020), and (3) the intensity of making political donations over the period overlapping with registrations.

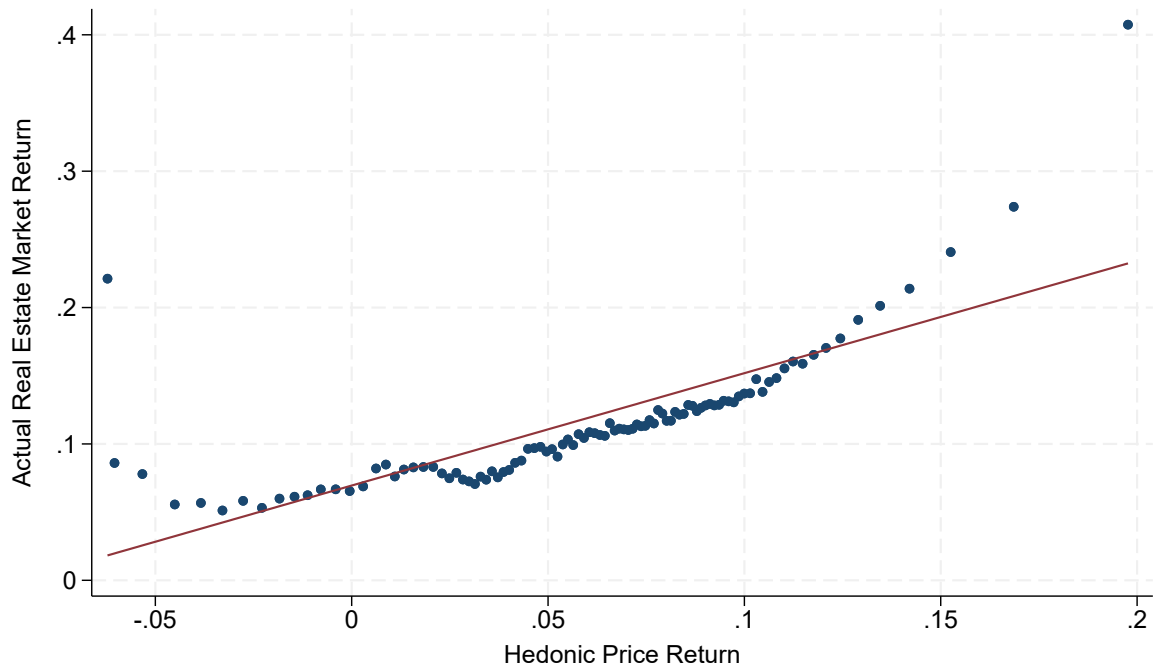


Figure IA2. Bin Scatter Plot for Realized Return and Hedonic Pricing Return

Notes: The figure plots the relationship between realized housing returns and returns measured using the hedonic pricing model (synthetic returns). Synthetic returns are constructed using a leave-one-county-out hedonic framework that applies national trends in the valuation of structural housing characteristics, and therefore capture the systematic, non-idiosyncratic component of housing returns. Realized housing returns increase roughly monotonically with synthetic returns, providing support for the validity of our synthetic return measure.

Table IA1. Annual Housing Appreciation Across Levels of Political Participation: No Neighborhood Fixed Effects

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Panel A: Measurement with Registration				
1(<i>TimesRegistered</i> = 2)	0.00226*** (0.00055)	0.00159 (0.00106)	0.00125 (0.00115)	0.00371*** (0.00082)
1(<i>TimesRegistered</i> = 3)	0.00587*** (0.00053)	0.00432*** (0.00103)	0.00360*** (0.00109)	0.00818*** (0.00078)
1(<i>TimesRegistered</i> = 4)	0.00995*** (0.00050)	0.00780*** (0.00095)	0.00993*** (0.00105)	0.01148*** (0.00074)
1(<i>TimesRegistered</i> = 5)	0.00911*** (0.00050)	0.00744*** (0.00099)	0.00789*** (0.00104)	0.01112*** (0.00074)
1(<i>TimesRegistered</i> = 6)	0.01216*** (0.00047)	0.00998*** (0.00089)	0.01157*** (0.00096)	0.01443*** (0.00070)
1(<i>TimesRegistered</i> = 7)	0.02089*** (0.00045)	0.01694*** (0.00085)	0.02140*** (0.00092)	0.02260*** (0.00069)
N	3,066,602	711,934	878,402	1,346,972
Panel B: Measurement with Voting				
1(<i>TimesVoted</i> = 1)	-0.00032 (0.00038)	0.00038 (0.00087)	0.00142 (0.00088)	-0.00060 (0.00050)
1(<i>TimesVoted</i> = 2)	0.00071* (0.00037)	0.00226*** (0.00086)	0.00319*** (0.00086)	0.00014 (0.00049)
1(<i>TimesVoted</i> = 3)	0.00037 (0.00036)	-0.00023 (0.00081)	0.00353*** (0.00081)	0.00006 (0.00048)
1(<i>TimesVoted</i> = 4)	0.00359*** (0.00035)	0.00290*** (0.00078)	0.00770*** (0.00079)	0.00248*** (0.00048)
1(<i>TimesVoted</i> = 5)	0.00822*** (0.00036)	0.00661*** (0.00078)	0.01363*** (0.00080)	0.00586*** (0.00050)
N	2,032,695	474,770	593,581	858,144
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes

Notes: This table reports baseline estimates of housing appreciation by voters' level of political participation, measured in two ways: the number of years a voter was registered between 2014 and 2020, and the number of presidential elections in which the voter cast a ballot between 2000 and 2016. Panel A uses voter registration frequency from 2014 to 2020 as the measure of democratic participation, while Panel B uses presidential voting frequency from 2000 to 2016. Column (1) reports appreciation differentials for all voters, and columns (2)–(4) report results by party affiliation. Voters are classified by party affiliation history: those who consistently affiliate with the Democratic Party (or Republican Party) are classified as Democrats (or Republicans). Voters who affiliate with a third party or switch party affiliation are classified as “Other Voters.” To account for potential confounding effects from geographic characteristics, transaction timing, and differences in investor preferences across age groups, we include fixed effects for the interaction of sale year-month and FIPS code, as well as fixed effects for birth year and holding period. Standard errors, reported in parentheses, are clustered at the tract level. ***, **, and * denote statistical significance at the 1%, 5%, and 1% levels, respectively.

Table IA2. Party Affiliation and Political Participation

	(1)	(2)	(3)	(4)	(5)
	Voter Fraction			Appreciation	
	Democrat	Republican	Other	All Voters	Two-Party Voters
	Voter Fraction	Voter Fraction	Voter Fraction	Annual Appreciation	Annual Appreciation
Democrat				0.00131 (0.00107)	-0.00182 (0.00141)
1(<i>TimesRegistered</i> = 2)	-0.01893** (0.00225)	-0.01683** (0.00240)	-0.04445** (0.00252)	0.00423** (0.00076)	0.00304** (0.00132)
1(<i>TimesRegistered</i> = 3)	-0.02776** (0.00214)	-0.02206** (0.00228)	-0.08802** (0.00245)	0.00792** (0.00072)	0.00655** (0.00128)
1(<i>TimesRegistered</i> = 4)	-0.03395** (0.00203)	-0.02211** (0.00217)	-0.14007** (0.00234)	0.01258** (0.00069)	0.01170** (0.00122)
1(<i>TimesRegistered</i> = 5)	-0.04600** (0.00205)	-0.03232** (0.00217)	-0.20586** (0.00237)	0.01237** (0.00069)	0.01126** (0.00122)
1(<i>TimesRegistered</i> = 6)	-0.03859** (0.00194)	-0.01779** (0.00208)	-0.23358** (0.00230)	0.01565** (0.00065)	0.01461** (0.00113)
1(<i>TimesRegistered</i> = 7)	-0.03153** (0.00187)	-0.00057 (0.00202)	-0.24952** (0.00226)	0.02137** (0.00065)	0.02083** (0.00111)
1(<i>TimesRegistered</i> = 2) × Democrat				-0.00217 (0.00141)	0.00007 (0.00184)
1(<i>TimesRegistered</i> = 3) × Democrat				-0.00277** (0.00134)	0.00058 (0.00176)
1(<i>TimesRegistered</i> = 4) × Democrat				-0.00373** (0.00126)	-0.00125 (0.00165)
1(<i>TimesRegistered</i> = 5) × Democrat				-0.00413** (0.00129)	-0.00049 (0.00171)
1(<i>TimesRegistered</i> = 6) × Democrat				-0.00482** (0.00118)	-0.00192 (0.00154)
1(<i>TimesRegistered</i> = 7) × Democrat				-0.00708** (0.00114)	-0.00494** (0.00149)
N	1,818,766	1,818,766	1,818,766	1,818,766	841,331
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes	Yes

Notes: This table reports, first, how the distribution of political affiliation varies across levels of political participation and, second, how party affiliation relates to annual housing returns. Columns (1)–(3) show differences in the shares of Democratic, Republican, and Other voters across participation levels. Columns (4) and (5) examine whether party affiliation is associated with housing returns: column (4) compares Democratic voters with the full sample, while column (5) compares Democratic and Republican voters directly. The regression specification follows that of Eqn. 2, or Table 3 Panel A. Standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA3. Party Affiliation and Electoral Participation

	(1)	(2)	(3)	(4)	(5)
	Voter Fraction			Appreciation	
	Democrat	Republican	Other	All Voters	Two-Party Voters
	Voter Fraction	Voter Fraction	Voter Fraction	Annual Appreciation	Annual Appreciation
Democrat				-0.00319** (0.00081)	-0.00188 (0.00115)
1(<i>TimesVoted</i> = 1)	0.00909*** (0.00169)	0.01468*** (0.00176)	-0.13622*** (0.00201)	0.00099 (0.00102)	-0.00062 (0.00142)
1(<i>TimesVoted</i> = 2)	0.02144*** (0.00168)	0.03871*** (0.00178)	-0.20853*** (0.00201)	0.00055 (0.00100)	-0.00178 (0.00138)
1(<i>TimesVoted</i> = 3)	0.06537*** (0.00168)	0.07901*** (0.00174)	-0.26849*** (0.00202)	-0.00105 (0.00093)	-0.00304** (0.00130)
1(<i>TimesVoted</i> = 4)	0.08338*** (0.00166)	0.12398*** (0.00177)	-0.31431*** (0.00205)	-0.00224** (0.00091)	-0.00464*** (0.00126)
1(<i>TimesVoted</i> = 5)	0.10620*** (0.00174)	0.17520*** (0.00189)	-0.36384*** (0.00210)	-0.00309*** (0.00089)	-0.00585*** (0.00123)
1(<i>TimesVoted</i> = 1) × Democrat				0.00099 (0.00102)	-0.00062 (0.00142)
1(<i>TimesVoted</i> = 2) × Democrat				0.00055 (0.00100)	-0.00178 (0.00138)
1(<i>TimesVoted</i> = 3) × Democrat				-0.00105 (0.00093)	-0.00304** (0.00130)
1(<i>TimesVoted</i> = 4) × Democrat				-0.00224** (0.00091)	-0.00464*** (0.00126)
1(<i>TimesVoted</i> = 5) × Democrat				-0.00309*** (0.00089)	-0.00585*** (0.00123)
N	1,707,987	1,707,987	1,707,987	1,707,987	809,829
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes	Yes

Notes: This table reports, first, how the distribution of political affiliation varies across levels of political participation and, second, how party affiliation relates to annual housing returns. Columns (1)–(3) show differences in the shares of Democratic, Republican, and Other voters across participation levels. Columns (4) and (5) examine whether party affiliation is associated with housing returns: column (4) compares Democratic voters with the full sample, while column (5) compares Democratic and Republican voters directly. The regression specification follows that of Eqn. 2, or Table ?? Panel A. Standard errors in the parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA4. Annual Housing Appreciation Across Different Levels of Political Participation, By Race

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Black	-0.00844*** (0.00282)	-0.01011** (0.00460)	0.01883 (0.01963)	-0.00297 (0.00506)
1(<i>TimesRegistered</i> = 2)	0.00138* (0.00074)	0.00363* (0.00218)	0.00088 (0.00174)	0.00432*** (0.00130)
1(<i>TimesRegistered</i> = 3)	0.00580*** (0.00071)	0.00538** (0.00218)	0.00355** (0.00162)	0.00937** (0.00124)
1(<i>TimesRegistered</i> = 4)	0.00914*** (0.00067)	0.00633*** (0.00195)	0.00875*** (0.00153)	0.01105*** (0.00117)
1(<i>TimesRegistered</i> = 5)	0.00857*** (0.00067)	0.00625*** (0.00202)	0.00772*** (0.00154)	0.01197*** (0.00117)
1(<i>TimesRegistered</i> = 6)	0.01235*** (0.00063)	0.00942*** (0.00182)	0.01237*** (0.00143)	0.01602*** (0.00111)
1(<i>TimesRegistered</i> = 7)	0.01946*** (0.00062)	0.01593*** (0.00177)	0.01840*** (0.00138)	0.02198*** (0.00110)
1(<i>TimesRegistered</i> = 2) × Black	0.01081*** (0.00378)	0.00395 (0.00619)	0.01207 (0.02489)	0.01456** (0.00697)
1(<i>TimesRegistered</i> = 3) × Black	0.00431 (0.00365)	0.00618 (0.00608)	-0.03995* (0.02315)	-0.00084 (0.00669)
1(<i>TimesRegistered</i> = 4) × Black	0.00343 (0.00335)	0.00712 (0.00552)	-0.02924 (0.02174)	0.00487 (0.00607)
1(<i>TimesRegistered</i> = 5) × Black	0.00050 (0.00335)	0.00248 (0.00553)	-0.01355 (0.02190)	-0.00046 (0.00616)
1(<i>TimesRegistered</i> = 6) × Black	0.00212 (0.00311)	0.00899* (0.00508)	-0.03200 (0.02136)	-0.00039 (0.00555)
1(<i>TimesRegistered</i> = 7) × Black	0.00085 (0.00297)	0.00653 (0.00474)	-0.01601 (0.02021)	-0.00311 (0.00539)
N	1,702,234	213,256	383,254	582,126
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates of racial differences in housing appreciation across levels of political participation. Column (1) presents results for the full sample of voters, while columns (2)–(4) report results separately by party affiliation. Column (2) shows the heterogeneous effect of race on appreciation differentials among Democratic voters, column (3) reports the corresponding estimates for Republican voters, and column (4) reports the results for Other voters. “Other voters” refers to voters who are neither Democratic nor Republican. Standard errors in parentheses are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA5. Annual Housing Appreciation Across Different Levels of Political Participation, By Race

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Black	-0.00581** (0.00211)	-0.00221 (0.00433)	0.01023 (0.01872)	-0.00189 (0.00403)
1(<i>TimesVoted</i> = 1)	0.00091 (0.00058)	0.00299 (0.00223)	0.00428*** (0.00145)	0.00088 (0.00093)
1(<i>TimesVoted</i> = 2)	0.00234*** (0.00056)	0.00273 (0.00220)	0.00736*** (0.00142)	0.00161* (0.00091)
1(<i>TimesVoted</i> = 3)	0.00146*** (0.00054)	0.00076 (0.00202)	0.00626*** (0.00134)	0.00109 (0.00089)
1(<i>TimesVoted</i> = 4)	0.00419*** (0.00053)	0.00520*** (0.00194)	0.00864*** (0.00132)	0.00294*** (0.00087)
1(<i>TimesVoted</i> = 5)	0.00814*** (0.00054)	0.00705*** (0.00191)	0.01214*** (0.00133)	0.00519*** (0.00091)
1(<i>TimesVoted</i> = 1) and Black	0.00371 (0.00267)	-0.00067 (0.00529)	-0.00985 (0.02170)	-0.00175 (0.00501)
1(<i>TimesVoted</i> = 2) and Black	0.00175 (0.00258)	-0.00096 (0.00542)	-0.00528 (0.02164)	-0.00550 (0.00475)
1(<i>TimesVoted</i> = 3) and Black	0.00076 (0.00245)	0.00038 (0.00470)	-0.00105 (0.02004)	-0.00642 (0.00462)
1(<i>TimesVoted</i> = 4) and Black	0.00025 (0.00246)	-0.00238 (0.00476)	-0.00475 (0.02003)	0.00037 (0.00477)
1(<i>TimesVoted</i> = 5) and Black	-0.00367 (0.00242)	-0.00148 (0.00459)	-0.02080 (0.02005)	-0.00202 (0.00526)
N	1,012,449	110,186	217,613	295,549
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates of racial differences in housing appreciation across levels of political participation. Column (1) presents results for the full sample of voters, while columns (2)–(4) report results separately by party affiliation. Column (2) shows the heterogeneous effect of race on appreciation differentials among Democratic voters, column (3) reports the corresponding estimates for Republican voters, and column (4) reports the results for Other voters. “Other voters” refers to voters who are neither Democratic nor Republican. Standard errors in parentheses are clustered by tract. ***, **, and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA6. Annual Housing Appreciation Across Different Levels of Political Participation, By Gender

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Female	-0.00515*** (0.00096)	-0.00323 (0.00205)	-0.00012 (0.00280)	-0.00769*** (0.00150)
1(<i>TimesRegistered</i> = 2)	0.00191*** (0.00069)	0.00114 (0.00196)	0.00212 (0.00154)	0.00238** (0.00111)
1(<i>TimesRegistered</i> = 3)	0.00560*** (0.00067)	0.00559*** (0.00190)	0.00391*** (0.00142)	0.00680*** (0.00107)
1(<i>TimesRegistered</i> = 4)	0.00948*** (0.00063)	0.00860*** (0.00170)	0.00872*** (0.00136)	0.01038*** (0.00101)
1(<i>TimesRegistered</i> = 5)	0.00934*** (0.00063)	0.00898*** (0.00180)	0.00886*** (0.00137)	0.01073*** (0.00101)
1(<i>TimesRegistered</i> = 6)	0.01277*** (0.00059)	0.01262*** (0.00163)	0.01320*** (0.00125)	0.01429*** (0.00095)
1(<i>TimesRegistered</i> = 7)	0.02039*** (0.00057)	0.01840*** (0.00153)	0.01990*** (0.00120)	0.02083*** (0.00094)
1(<i>TimesRegistered</i> = 2) × Female	-0.00072 (0.00125)	0.00202 (0.00285)	-0.00402 (0.00360)	0.00292 (0.00194)
1(<i>TimesRegistered</i> = 3) × Female	-0.00178 (0.00119)	-0.00176 (0.00276)	-0.00413 (0.00349)	0.00131 (0.00183)
1(<i>TimesRegistered</i> = 4) × Female	-0.00201* (0.00113)	-0.00338 (0.00244)	-0.00526 (0.00320)	0.00224 (0.00174)
1(<i>TimesRegistered</i> = 5) × Female	-0.00326*** (0.00113)	-0.00564** (0.00258)	-0.00504 (0.00320)	0.00186 (0.00174)
1(<i>TimesRegistered</i> = 6) × Female	-0.00326*** (0.00106)	-0.00447* (0.00234)	-0.00771** (0.00300)	0.00143 (0.00164)
1(<i>TimesRegistered</i> = 7) × Female	-0.00616*** (0.00101)	-0.00692*** (0.00215)	-0.00824*** (0.00289)	-0.00108 (0.00157)
N	2,714,649	437,963	596,995	1,031,508
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates of gender differences in housing appreciation across levels of political participation. Column (1) presents results for the full sample of voters, while columns (2)–(4) report results separately by party affiliation. Column (2) shows the estimates for Democratic voters, column (3) for Republican voters, and column (4) for Other voters. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA7. Annual Housing Appreciation Across Different Levels of Political Participation, By Gender

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Female	-0.00729*** (0.00071)	-0.00659*** (0.00207)	-0.00135 (0.00247)	-0.00757*** (0.00096)
1(<i>TimesVoted</i> = 1)	0.00000 (0.00049)	0.00122 (0.00166)	0.00335*** (0.00122)	-0.00015 (0.00071)
1(<i>TimesVoted</i> = 2)	0.00109** (0.00048)	0.00103 (0.00161)	0.00600*** (0.00119)	0.00072 (0.00071)
1(<i>TimesVoted</i> = 3)	0.00076* (0.00046)	-0.00072 (0.00152)	0.00526*** (0.00114)	0.00061 (0.00070)
1(<i>TimesVoted</i> = 4)	0.00398*** (0.00045)	0.00215 (0.00151)	0.00836*** (0.00109)	0.00318*** (0.00071)
1(<i>TimesVoted</i> = 5)	0.00812*** (0.00045)	0.00574*** (0.00148)	0.01207*** (0.00109)	0.00518*** (0.00073)
1(<i>TimesVoted</i> = 1) and Female	0.00226** (0.00089)	-0.00016 (0.00263)	-0.00344 (0.00292)	0.00354*** (0.00125)
1(<i>TimesVoted</i> = 2) and Female	0.00151* (0.00087)	-0.00003 (0.00248)	-0.00361 (0.00285)	0.00248** (0.00123)
1(<i>TimesVoted</i> = 3) and Female	0.00115 (0.00083)	0.00073 (0.00234)	-0.00348 (0.00276)	0.00304** (0.00120)
1(<i>TimesVoted</i> = 4) and Female	-0.00116 (0.00081)	0.00112 (0.00227)	-0.00447* (0.00264)	0.00020 (0.00118)
1(<i>TimesVoted</i> = 5) and Female	-0.00275*** (0.00079)	-0.00233 (0.00221)	-0.00548** (0.00261)	-0.00020 (0.00119)
N	1,693,472	246,598	353,827	577,195
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates of gender differences in housing appreciation across levels of political participation. Column (1) presents results for the full sample of voters, while columns (2)–(4) report results separately by party affiliation. Column (2) shows the estimates for Democratic voters, column (3) for Republican voters, and column (4) for Other voters. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA8. Annual Housing Appreciation Across Different Levels of Political Participation, Controlling for Individual Resources

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Income		Education		Wealth		Credit	
	Annual Appreciation		Annual Appreciation		Annual Appreciation		Annual Appreciation	
1(<i>TimesRegistered</i> = 2)	-0.00034 (0.00093)	-0.00036 (0.00093)	0.00183* (0.00096)	0.00188** (0.00096)	0.01956* (0.01079)	0.02015* (0.01084)	0.01956* (0.01079)	0.01957* (0.01081)
1(<i>TimesRegistered</i> = 3)	0.00187** (0.00088)	0.00183** (0.00088)	0.00333*** (0.00094)	0.00343*** (0.00094)	0.01114 (0.00983)	0.01133 (0.00977)	0.01114 (0.00983)	0.01116 (0.00987)
1(<i>TimesRegistered</i> = 4)	0.00429*** (0.00083)	0.00422*** (0.00083)	0.00559*** (0.00090)	0.00573*** (0.00090)	0.01474 (0.00977)	0.01371 (0.00972)	0.01474 (0.00977)	0.01475 (0.00977)
1(<i>TimesRegistered</i> = 5)	0.00369*** (0.00084)	0.00364*** (0.00084)	0.00547*** (0.00090)	0.00567*** (0.00090)	0.01207 (0.00898)	0.01200 (0.00888)	0.01207 (0.00898)	0.01209 (0.00899)
1(<i>TimesRegistered</i> = 6)	0.00639*** (0.00079)	0.00631*** (0.00079)	0.00784*** (0.00084)	0.00811*** (0.00084)	0.01344* (0.00795)	0.01310* (0.00785)	0.01344* (0.00795)	0.01346* (0.00796)
1(<i>TimesRegistered</i> = 7)	0.01080*** (0.00076)	0.01069*** (0.00076)	0.01353*** (0.00080)	0.01392*** (0.00080)	0.02011** (0.00842)	0.01992** (0.00834)	0.02011** (0.00842)	0.02015** (0.00845)
log(Income)		-0.00649*** (0.00022)						
Education Years				-0.00063*** (0.00009)				
Wealth (in \$10,000)						-0.00041*** (0.00010)		
Credit Score								-0.00000 (0.00003)
N	1,468,244	1,468,244	758,231	758,231	21,165	21,165	21,165	21,165
Birth Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sale Year × Tract	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Holding Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table reports estimates of how socioeconomic characteristics—income, education, wealth, and credit score—affect the observed appreciation differential. Income is measured using HMDA data, education is observed in the L2 data, and wealth and credit score are drawn from North Carolina credit records. Because each socioeconomic characteristic is matched from a different auxiliary dataset, the estimation samples differ across specifications, and the baseline results in Table IA1 or Table 3 are therefore not directly comparable. For each characteristic, we first estimate the baseline specification from Table 3 using the corresponding matched sample, and then re-estimate the regression with a linear control for that socioeconomic characteristic. Columns (1)–(2) report the results for income, columns (3)–(4) for education, columns (5)–(6) for wealth, and columns (7)–(8) for credit score. Because columns (5) and (7) are estimated using the same sample and the same baseline specification, the baseline results in those columns are identical. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA9. Annual Housing Appreciation Across Different Levels of Political Participation, Controlling for Individual Resources

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Income		Education		Wealth		Credit	
	Annual Appreciation		Annual Appreciation		Annual Appreciation		Annual Appreciation	
1(<i>TimesVoted</i> = 1)	-0.00025 (0.00058)	-0.00022 (0.00058)	-0.00183** (0.00082)	-0.00171** (0.00082)	-0.01243** (0.00520)	-0.01279** (0.00521)	-0.01243** (0.00520)	-0.01243** (0.00520)
1(<i>TimesVoted</i> = 2)	0.00050 (0.00056)	0.00053 (0.00056)	0.00006 (0.00080)	0.00027 (0.00080)	-0.00155 (0.00532)	-0.00131 (0.00536)	-0.00155 (0.00532)	-0.00155 (0.00529)
1(<i>TimesVoted</i> = 3)	-0.00069 (0.00053)	-0.00065 (0.00053)	0.00174** (0.00077)	0.00198** (0.00078)	-0.00203 (0.00565)	-0.00208 (0.00567)	-0.00203 (0.00565)	-0.00203 (0.00563)
1(<i>TimesVoted</i> = 4)	0.00229*** (0.00053)	0.00235*** (0.00053)	0.00244*** (0.00074)	0.00274*** (0.00075)	-0.00380 (0.00637)	-0.00381 (0.00637)	-0.00380 (0.00637)	-0.00381 (0.00633)
1(<i>TimesVoted</i> = 5)	0.00541*** (0.00053)	0.00551*** (0.00053)	0.00509*** (0.00075)	0.00544*** (0.00076)	-0.00527 (0.00584)	-0.00550 (0.00585)	-0.00527 (0.00584)	-0.00528 (0.00578)
log(Income)		-0.00431*** (0.00019)						
Education Years				-0.00044*** (0.00009)				
Wealth (in \$10,000)						-0.00035*** (0.00006)		
Credit Score								0.00000 (0.00002)
N	1,090,318	1,090,318	420,451	420,451	18,484	18,484	18,484	18,484
Birth Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sale Year × Tract	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Holding Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table reports estimates of how socioeconomic characteristics—income, education, wealth, and credit score—affect the observed appreciation differential. Income is measured using HMDA data, education is observed in the L2 data, and wealth and credit score are drawn from North Carolina credit records. Because each socioeconomic characteristic is matched from a different auxiliary dataset, the estimation samples differ across specifications, and the baseline results in Table IA1 or Table 3 are therefore not directly comparable. For each characteristic, we first estimate the baseline specification from Table 3 using the corresponding matched sample, and then re-estimate the regression with a linear control for that socioeconomic characteristic. Columns (1)–(2) report the results for income, columns (3)–(4) for education, columns (5)–(6) for wealth, and columns (7)–(8) for credit score. Because columns (5) and (7) are estimated using the same sample and the same baseline specification, the baseline results in those columns are identical. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA10. Political Participation Measured Using Political Donation Behavior

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Donation Intensity	0.00613*** (0.00029)	0.00511*** (0.00075)	0.00486*** (0.00065)	0.00725*** (0.00050)
N	2,180,002	324,126	462,683	801,627
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Race	Yes	Yes	Yes	Yes
County $\times$ Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract $\times$ Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates for the effect of political participation on housing appreciation measured by the intensity of political donations. We establish the measure of donation intensity by letting $DI = \frac{\sum 1(Donation=1)}{\sum 1(VoterReg=1)}$, which measures an individual's incidence of making a political donation relative to their registrations. Column (1) reports the result for all voters, while column (2)–(4) report the result for voters of different political affiliations: column (2) report the result for democratic voters, column (3) reports the result for republican voters and column (4) report the result for other voters. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA11. Other Forms of Political Participation: Validity of Measure

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Participation	Participation	Participation	Participation
Panel A: Political Participation Measured by Donation Intensity				
1(<i>TimesRegistered</i> = 2)	0.00427** (0.00194)	0.00765 (0.00558)	0.00586 (0.00492)	0.00936*** (0.00320)
1(<i>TimesRegistered</i> = 3)	0.00825*** (0.00184)	0.00702 (0.00534)	0.01597*** (0.00462)	0.01291*** (0.00304)
1(<i>TimesRegistered</i> = 4)	0.02677*** (0.00174)	0.02549*** (0.00495)	0.03560*** (0.00436)	0.02959*** (0.00289)
1(<i>TimesRegistered</i> = 5)	0.04294*** (0.00175)	0.03625*** (0.00504)	0.06182*** (0.00454)	0.04470*** (0.00288)
1(<i>TimesRegistered</i> = 6)	0.06581*** (0.00166)	0.05584*** (0.00471)	0.08696*** (0.00418)	0.06416*** (0.00278)
1(<i>TimesRegistered</i> = 7)	0.11569*** (0.00161)	0.10479*** (0.00445)	0.13734*** (0.00398)	0.10453*** (0.00272)
N	2,180,002	324,126	462,683	801,627
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Race	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes
Panel B: Political Participation Measured by Voting Percentage				
1(<i>TimesRegistered</i> = 2)	0.11533*** (0.00541)	0.12385*** (0.01659)	0.10151*** (0.01348)	0.13325*** (0.00917)
1(<i>TimesRegistered</i> = 3)	0.16357*** (0.00504)	0.17948*** (0.01550)	0.18231*** (0.01229)	0.17568*** (0.00861)
1(<i>TimesRegistered</i> = 4)	0.21596*** (0.00483)	0.20476*** (0.01468)	0.23225*** (0.01167)	0.23118*** (0.00834)
1(<i>TimesRegistered</i> = 5)	0.23304*** (0.00477)	0.19783*** (0.01462)	0.25224*** (0.01151)	0.24767*** (0.00830)
1(<i>TimesRegistered</i> = 6)	0.28532*** (0.00474)	0.24918*** (0.01438)	0.30853*** (0.01134)	0.28747*** (0.00823)
1(<i>TimesRegistered</i> = 7)	0.31933*** (0.00473)	0.27308*** (0.01431)	0.33739*** (0.01130)	0.32069*** (0.00821)
N	1,057,391	133,758	202,416	409,236
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Race	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes

Notes: This table reports the relationship between the number of times a voter is registered and other forms of political participation. Column (1) presents results for the full sample of voters. Columns (2)–(4) report results separately by party affiliation: column (2) for Democratic voters, column (3) for Republican voters, and column (4) for Other voters. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA12. Appreciation by All-Cash and Mortgage Purchases

	(1)	(2)	(3)
	All Buyers	Cash Purchase	Mortgage Purchase
	Annual Return	Annual Return	Annual Return
1(<i>TimesRegistered</i> = 2)	0.00171*** (0.00044)	0.00500* (0.00303)	0.00119*** (0.00039)
1(<i>TimesRegistered</i> = 3)	0.00449*** (0.00043)	0.00901*** (0.00294)	0.00334*** (0.00037)
1(<i>TimesRegistered</i> = 4)	0.00829*** (0.00040)	0.01834*** (0.00278)	0.00535*** (0.00035)
1(<i>TimesRegistered</i> = 5)	0.00782*** (0.00041)	0.01747*** (0.00276)	0.00602*** (0.00036)
1(<i>TimesRegistered</i> = 6)	0.01069*** (0.00038)	0.02083*** (0.00260)	0.00754*** (0.00033)
1(<i>TimesRegistered</i> = 7)	0.01627*** (0.00037)	0.03647*** (0.00245)	0.00880*** (0.00032)
N	3,231,474	200,598	2,524,715
Sale Year-Month $\times$ FIPS FE	Yes	Yes	Yes
Birth Year FE	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes
Tract $\times$ Sale Year FE	Yes	Yes	Yes

Notes: This table reports estimates of the appreciation differential by level of voter participation, separately by method of payment at purchase. Column (1) presents results for the full sample. Column (2) reports results for properties purchased with cash, while column (3) reports results for properties financed with a mortgage at the time of purchase. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA13. Psychographic Fixed Effects on Specific Characteristics.

	Fixed Effect
“Good Citizens Vote”	0.047*** (0.009)
“Good Citizens are Financially Prudent”	-0.005 (0.005)
“Economy Benefits the Avg American”	-0.017 (0.011)
“Democracy Benefits the Avg American”	0.005*** (0.001)
Extroverted	-0.006*** (0.001)
Agreeable	-0.002 (0.002)
Conscientious	-0.010*** (0.004)
Neurotic	-0.004*** (0.001)
Openness	0.009*** (0.002)
AgencyOverFinances	-0.008 (0.005)
AgencyOverCommunity	0.001 (0.002)
AgencyOverHappiness	0.013* (0.007)
N	1195
R-squared	0.127

Notes: This table reports a regression of the psychographic fixed effects from Table 10 on psychographic characteristics elicited in the online survey. The characteristics are binary indicators that, respectively, encode whether the respondent: agrees at least 50% with the statements “voting is part of being a good citizen”, “voting is part of being a good citizen” or “making prudent financial decisions is part of being a good citizen”, “making prudent financial decisions is part of being a good citizen”, or “the Average American benefits from a [strong economy or functioning democracy]”; scores above 50% for the the Big-5 personality traits (Extroverted, Agreeable, Conscientious, Neurotic, Openness); or agrees at least 50% that they have agency over their financial condition, community, or overall happiness. Each observation is a survey respondent. Standard errors are heteroskedasticity robust. The remaining notes are the same as in Table 10. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA14. Appreciation and Civic Engagement in American Housing Survey

	<i>Annualized Appreciation_i</i>							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Civic Engagement	0.00428*** (0.00160)	0.00429*** (0.00163)	0.00452*** (0.00163)	0.00378* (0.00222)	0.00220 (0.00166)	0.00285** (0.00142)		
Aggregate Engagement							0.00173*** (0.00051)	
Engaging in 1 Activity								-0.00010 (0.00185)
Engaging in 2 Activities								0.00251 (0.00198)
Engaging in 3 Activities								0.00484** (0.00242)
Engaging in 4 Activities								0.00830*** (0.00285)
Engaging in 5 Activities								0.00786* (0.00448)
<u>Controls</u>								
Income	Y	Y	Y	Y	Y	Y	Y	Y
Race and Education	Y	Y	Y	Y	Y	Y	Y	Y
Property Characteristics	Y	Y	Y	Y	Y	Y	Y	Y
N	12,113	12,095	12,096	12,094	12,101	12,095	12,068	12,068
SMSA FE	Y	Y	Y	Y	Y	Y	Y	Y
Birth Year FE	Y	Y	Y	Y	Y	Y	Y	Y
Holding Period FE	Y	Y	Y	Y	Y	Y	Y	Y

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table presents estimates of the relation between housing appreciation and civic engagement using the 2013 American Housing Survey. Each observation is a housing unit in 2013. The variable *CivicEngagement_i* indicates the status of a respondent's civic engagement level. Column (1) corresponds to whether the respondent is a member of a civic group. In column (2) it corresponds to whether the respondent talks to a local politician on local issues. In column (3), it reflects whether the households gathered with neighbors to fix neighborhood problems. Column (4) reflects whether the households talked to the group causing the neighborhood problems and column (5) corresponds to whether the respondent attended the neighborhood meeting on neighborhood issues. Column (6) shows whether the household engages volunteer services. Column (7) reports the aggregate engagement from column (2) to (6) as they reflect different dimensions of engagement in solving local problems while column (8) present the differential in appreciation for different engagement intensity levels. All specifications include fixed effects for SMSA (i.e., "metro"), birth year of the householder, and holding period, in years since purchase. The sets of controls are: log household income (Income); indicators for whether the householder is black, is hispanic, has a high school diploma, has a bachelor's degree, or has a master's degree (Race and Education); and log square feet of the home (Property Characteristics). Heteroskedasticity robust standard errors are in parentheses. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA15. Annual Housing Appreciation Along Different Levels of Political Participation: Excluding States Adding Automatic Registration

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Panel A: Tract-Level Fixed Effects				
1(<i>TimesRegistered</i> = 2)	0.00350*** (0.00081)	0.00402* (0.00223)	0.00128 (0.00172)	0.00696*** (0.00139)
1(<i>TimesRegistered</i> = 3)	0.00768*** (0.00079)	0.00827*** (0.00216)	0.00579*** (0.00164)	0.01003*** (0.00135)
1(<i>TimesRegistered</i> = 4)	0.01122*** (0.00075)	0.01062*** (0.00200)	0.01017*** (0.00156)	0.01354*** (0.00127)
1(<i>TimesRegistered</i> = 5)	0.01106*** (0.00074)	0.01100*** (0.00204)	0.01097*** (0.00155)	0.01418*** (0.00127)
1(<i>TimesRegistered</i> = 6)	0.01498*** (0.00070)	0.01535*** (0.00187)	0.01466*** (0.00146)	0.01874*** (0.00122)
1(<i>TimesRegistered</i> = 7)	0.02210*** (0.00069)	0.02113*** (0.00180)	0.02169*** (0.00142)	0.02378*** (0.00121)
N	1,361,200	198,850	349,484	472,906
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Sale Year × Tract FE	Yes	Yes	Yes	Yes
Panel B: Congressional District-Level Fixed Effects				
1(<i>TimesRegistered</i> = 2)	0.00298*** (0.00074)	0.00200 (0.00157)	0.00049 (0.00136)	0.00545*** (0.00109)
1(<i>TimesRegistered</i> = 3)	0.00782*** (0.00071)	0.00602*** (0.00154)	0.00608*** (0.00134)	0.01042*** (0.00105)
1(<i>TimesRegistered</i> = 4)	0.01148*** (0.00068)	0.00973*** (0.00144)	0.01208*** (0.00126)	0.01213*** (0.00099)
1(<i>TimesRegistered</i> = 5)	0.01072*** (0.00067)	0.00962*** (0.00147)	0.00980*** (0.00125)	0.01322*** (0.00098)
1(<i>TimesRegistered</i> = 6)	0.01436*** (0.00063)	0.01214*** (0.00134)	0.01388*** (0.00116)	0.01708*** (0.00094)
1(<i>TimesRegistered</i> = 7)	0.02292*** (0.00062)	0.01923*** (0.00128)	0.02397*** (0.00112)	0.02512*** (0.00093)
N	1,605,664	339,333	512,367	715,303
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Sale Year × FIPS × Congressional District FE	Yes	Yes	Yes	Yes
Panel C: Block Group-Level Fixed Effects				
1(<i>TimesRegistered</i> = 2)	0.00364*** (0.00089)	0.00325 (0.00289)	0.00206 (0.00203)	0.00606*** (0.00163)
1(<i>TimesRegistered</i> = 3)	0.00717*** (0.00088)	0.00594** (0.00274)	0.00574*** (0.00196)	0.00966*** (0.00158)
1(<i>TimesRegistered</i> = 4)	0.01075*** (0.00083)	0.00849*** (0.00249)	0.00946*** (0.00189)	0.01366*** (0.00147)
1(<i>TimesRegistered</i> = 5)	0.01097*** (0.00082)	0.00938*** (0.00254)	0.01105*** (0.00187)	0.01436*** (0.00148)
1(<i>TimesRegistered</i> = 6)	0.01474*** (0.00078)	0.01375*** (0.00238)	0.01441*** (0.00175)	0.01762*** (0.00142)
1(<i>TimesRegistered</i> = 7)	0.02087*** (0.00077)	0.01865*** (0.00225)	0.01961*** (0.00173)	0.02224*** (0.00140)
N	1,093,096	122,853	239,633	337,971
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
Sale Year × Block Group	Yes	Yes	Yes	Yes

Notes: This table reports the regression results of housing appreciation on political participation following Eqn. 2 with different levels of spatial fixed effects. Political participation is measured by voting registration frequency between 2014 and 2020. To avoid concerns that the participation measure may be mechanically affected by automatic voter registration, the sample is restricted to states that had not implemented automatic voter registration before 2010. The excluded states are Alaska, California, Colorado, Connecticut, the District of Columbia, Georgia, Illinois, Maryland, Massachusetts, Michigan, New Jersey, New Mexico, Nevada, Oregon, Rhode Island, Vermont, Virginia, and Washington. Panel A adds an extra sale year intersecting tract fixed effect, while Panel B looks as congressional district. Panel C adds block group-sale year fixed effect. Standard errors, in parentheses, are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA16. Robustness to Differences in Voter Purging Procedures

	(1)	(2)	(3)
		Difference Across Voter Roll Management	
	All States	Slow Purge States	Fast Purge States
	Annual Appreciation	Annual Appreciation	Annual Appreciation
1(<i>TimesRegistered</i> = 2)	0.00170*** (0.00058)	0.00163** (0.00064)	0.00469*** (0.00153)
1(<i>TimesRegistered</i> = 3)	0.00497*** (0.00056)	0.00498*** (0.00062)	0.00776*** (0.00150)
1(<i>TimesRegistered</i> = 4)	0.00873*** (0.00052)	0.00860*** (0.00058)	0.01311*** (0.00139)
1(<i>TimesRegistered</i> = 5)	0.00816*** (0.00053)	0.00812*** (0.00059)	0.01154*** (0.00138)
1(<i>TimesRegistered</i> = 6)	0.01159*** (0.00049)	0.01172*** (0.00055)	0.01382*** (0.00129)
1(<i>TimesRegistered</i> = 7)	0.01856*** (0.00048)	0.01852*** (0.00054)	0.02108*** (0.00128)
N	2,736,367	2,208,298	416,084
Sale YM × FIPS FE	Yes	Yes	Yes
Birth Year FE	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes

Notes: This table reports results from the same specification as Table 3, Panel A, but focuses on whether cross-state differences in voter-roll purging practices affect the empirical patterns we observe. This issue matters because in states that do not actively remove inactive voters from the rolls, the same voter may appear multiple times in the L2 data, which could upwardly bias our measure of registration frequency. Because voter-roll maintenance policies vary across states, we classify as “fast-purge” those states in which a voter is removed after fewer than five consecutive years of not voting. These states are Massachusetts, Illinois, Idaho, Wisconsin, Wyoming, Maine, Missouri, Montana, North Carolina, Ohio, and Virginia. North Dakota is also classified as a fast-purge state because it does not maintain a formal voter registration system; instead, voter eligibility is determined each year based on whether the individual has resided in the state for at least 30 days before the election, which is equivalent to annual purging. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA17. Housing Appreciation Across Political Participation, By Tract-Home Values and Income

	(1)	(2)	(3)	(4)
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
1(<i>TimesRegistered</i> = 2)	0.00258*** (0.00062)	0.02514 (0.01646)	0.00255*** (0.00062)	-0.01085 (0.02199)
1(<i>TimesRegistered</i> = 3)	0.00605*** (0.00059)	0.03073* (0.01593)	0.00601*** (0.00059)	-0.00060 (0.02204)
1(<i>TimesRegistered</i> = 4)	0.00968*** (0.00056)	0.08259*** (0.01513)	0.00962*** (0.00056)	0.02098 (0.02050)
1(<i>TimesRegistered</i> = 5)	0.00907*** (0.00056)	0.05626*** (0.01509)	0.00891*** (0.00056)	0.00716 (0.02045)
1(<i>TimesRegistered</i> = 6)	0.01232*** (0.00052)	0.07387*** (0.01414)	0.01220*** (0.00052)	-0.00166 (0.01947)
1(<i>TimesRegistered</i> = 7)	0.02044*** (0.00050)	0.10717*** (0.01358)	0.02020*** (0.00050)	0.01248 (0.01832)
log(House Value)	-0.02686*** (0.00051)	0.00000		
log(Median Income)			-0.03377*** (0.00051)	0.00000
1(<i>TimesRegistered</i> = 2) × log(House Value)		-0.00190 (0.00131)		
1(<i>TimesRegistered</i> = 3) × log(House Value)		-0.00209* (0.00127)		
1(<i>TimesRegistered</i> = 4) × log(House Value)		-0.00595*** (0.00120)		
1(<i>TimesRegistered</i> = 5) × log(House Value)		-0.00390*** (0.00120)		
1(<i>TimesRegistered</i> = 6) × log(House Value)		-0.00502*** (0.00112)		
1(<i>TimesRegistered</i> = 7) × log(House Value)		-0.00714*** (0.00108)		
1(<i>TimesRegistered</i> = 2) × log(Median Income)				0.00111 (0.00196)
1(<i>TimesRegistered</i> = 3) × log(Median Income)				0.00047 (0.00197)
1(<i>TimesRegistered</i> = 4) × log(Median Income)				-0.00115 (0.00183)
1(<i>TimesRegistered</i> = 5) × log(Median Income)				0.00003 (0.00183)
1(<i>TimesRegistered</i> = 6) × log(Median Income)				0.00116 (0.00174)
1(<i>TimesRegistered</i> = 7) × log(Median Income)				0.00049 (0.00164)
N	2,512,764	2,179,555	2,512,764	2,179,555
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes
Tract × Sale Year	No	Yes	No	Yes
Race FE	Yes	Yes	Yes	Yes

Notes: This table provides evidence that tract-level house values and median income do not explain the finding that housing appreciation increases with political participation, helping rule out a spatial-sorting explanation in which higher appreciation simply reflects residence in neighborhoods with higher property values or higher incomes. Columns (1) and (2) report results for tract-level house values, while columns (3) and (4) report results for tract-level median income. Columns (1) and (3) show the average effects of tract-level house values and income. Because these variables are measured at the tract level using ACS data, tract fixed effects are not absorbed in these specifications. Columns (2) and (4) examine heterogeneity in these effects across groups. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA18. Housing Appreciation Across Political Participation, By Tract-Level Education

	(1)	(2)	(3)
	Annual Appreciation	Annual Appreciation	Annual Appreciation
1(<i>TimesRegistered</i> = 2)	0.00249*** (0.00062)	0.01980** (0.00944)	0.00906 (0.01070)
1(<i>TimesRegistered</i> = 3)	0.00599*** (0.00059)	0.02000** (0.00897)	0.00316 (0.01034)
1(<i>TimesRegistered</i> = 4)	0.00959*** (0.00056)	0.03305*** (0.00845)	0.02038** (0.00970)
1(<i>TimesRegistered</i> = 5)	0.00903*** (0.00056)	0.01498* (0.00855)	0.00724 (0.00964)
1(<i>TimesRegistered</i> = 6)	0.01230*** (0.00052)	0.00787 (0.00803)	0.00750 (0.00922)
1(<i>TimesRegistered</i> = 7)	0.02037*** (0.00050)	0.03750*** (0.00752)	0.02075** (0.00870)
Tract Average Education Years	-0.01313*** (0.00018)	-0.01226*** (0.00053)	0.00000
1(<i>TimesRegistered</i> = 2) × Tract Average Education Years		-0.00125* (0.00067)	-0.00055 (0.00075)
1(<i>TimesRegistered</i> = 3) × Tract Average Education Years		-0.00101 (0.00063)	0.00010 (0.00073)
1(<i>TimesRegistered</i> = 4) × Tract Average Education Years		-0.00170*** (0.00060)	-0.00087 (0.00068)
1(<i>TimesRegistered</i> = 5) × Tract Average Education Years		-0.00043 (0.00060)	0.00002 (0.00068)
1(<i>TimesRegistered</i> = 6) × Tract Average Education Years		0.00032 (0.00057)	0.00026 (0.00065)
1(<i>TimesRegistered</i> = 7) × Tract Average Education Years		-0.00124** (0.00053)	-0.00020 (0.00061)
N	2,935,537	2,935,537	2,590,682
Birth Year FE	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes
Tract × Sale Year	No	No	Yes
Race FE	Yes	Yes	Yes

Notes: This table reports estimates of the effect of tract-level average education on housing appreciation across different levels of political participation. Tract-level average education obtained from the American Community Survey data. Column (1) presents the baseline appreciation differential with tract-level average years of education included as an additional control. Because average years of education is measured at the tract level, tract-by-sale-year fixed effects are not included in this specification to avoid multicollinearity. Column (2) further examines heterogeneity in the effect of tract-level average education on housing returns. Column (3) adds tract-by-sale-year fixed effects; as a result, the main effect of tract-level average years of education is omitted because of perfect collinearity, while the heterogeneity estimates remain identified. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA19. Tract-Level Features Effect on Housing Appreciation, Participation Measured By Registration

	(1)	(2)
	Annual Appreciation	Annual Appreciation
1(<i>TimesRegistered</i> = 2)	0.00258*** (0.00062)	0.00244*** (0.00062)
1(<i>TimesRegistered</i> = 3)	0.00604*** (0.00059)	0.00602*** (0.00059)
1(<i>TimesRegistered</i> = 4)	0.00969*** (0.00056)	0.00964*** (0.00056)
1(<i>TimesRegistered</i> = 5)	0.00886*** (0.00056)	0.00908*** (0.00056)
1(<i>TimesRegistered</i> = 6)	0.01201*** (0.00052)	0.01239*** (0.00052)
1(<i>TimesRegistered</i> = 7)	0.02053*** (0.00051)	0.02035*** (0.00050)
Latino Fraction (0-100)		0.00022*** (0.00002)
Black Fraction (0-100)		0.00044*** (0.00002)
Unemployment Rate		0.00099*** (0.00008)
Median Age		0.00030*** (0.00003)
SNAP		0.00126*** (0.00005)
House Owner Fraction		0.00028*** (0.00001)
log(House Value)		0.00273*** (0.00076)
log(Median Income)		-0.02325*** (0.00108)
N	2,512,764	2,512,764
Birth Year FE	Yes	Yes
Holding Month FE	Yes	Yes
Race FE	Yes	Yes
County × Sale Year-Month FE	Yes	Yes
Tract × Sale Year FE	No	No

Notes: This table reports estimates of how tract-level characteristics affect housing appreciation differentials. Tract-level information from the American Community Survey data. Properties that cannot be matched to a tract are dropped from the sample. Column (1) presents the baseline estimate for this sample, using the same regression specification as in Table IA1 Panel A. Column (2) reports the appreciation differential after adding tract-level characteristics as linear controls. Tract-by-sale-year fixed effects are omitted in this specification to avoid perfect collinearity. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA20. Tract-Level Features Effect on Housing Appreciation, Participation Measured By Voting

	(1)	(2)
	Annual Appreciation	Annual Appreciation
1(<i>TimesVoted</i> = 1)	-0.00126** (0.00062)	-0.00054 (0.00061)
1(<i>TimesVoted</i> = 2)	0.00045 (0.00060)	0.00137** (0.00060)
1(<i>TimesVoted</i> = 3)	0.00089 (0.00058)	0.00188*** (0.00058)
1(<i>TimesVoted</i> = 4)	0.00467*** (0.00057)	0.00577*** (0.00057)
1(<i>TimesVoted</i> = 5)	0.01118*** (0.00058)	0.01224*** (0.00058)
Latino Fraction (0-100)		0.00021*** (0.00002)
Black Fraction (0-100)		0.00048*** (0.00003)
Unemployment Rate		0.00097*** (0.00010)
Median Age		0.00029*** (0.00004)
SNAP		0.00141*** (0.00006)
House Owner Fraction		0.00031*** (0.00002)
log(House Value)		0.00477*** (0.00089)
log(Median Income)		-0.02596*** (0.00129)
N	1,669,422	1,669,422
Sale YM $\times$ FIPS FE	Yes	Yes
Birth Year FE	Yes	Yes
Holding Month FE	Yes	Yes
Race FE	Yes	Yes

Notes: This table reports estimates of how tract-level characteristics affect housing appreciation differentials. Tract-level information from the American Community Survey data. Properties that cannot be matched to a tract are dropped from the sample. Column (1) presents the baseline estimate for this sample, using the same regression specification as in Table IA1 Panel B. Column (2) reports the appreciation differential after adding tract-level characteristics as linear controls. Tract-by-sale-year fixed effects are omitted in this specification to avoid perfect collinearity. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA21. Annual Appreciation by Racial Composition

	(1)	(2)	(3)	(4)
	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Annual Appreciation	Annual Appreciation	Annual Appreciation
Black Fraction	0.00069*** (0.00004)	0.00059*** (0.00006)	0.00053*** (0.00009)	0.00088*** (0.00007)
1(<i>TimesRegistered</i> = 2)	0.00137*** (0.00067)	0.00237* (0.00125)	-0.00078 (0.00145)	0.00268*** (0.00103)
1(<i>TimesRegistered</i> = 3)	0.00441*** (0.00064)	0.00332*** (0.00122)	0.00191 (0.00135)	0.00687*** (0.00098)
1(<i>TimesRegistered</i> = 4)	0.00919*** (0.00060)	0.00811*** (0.00113)	0.00668*** (0.00130)	0.01149*** (0.00091)
1(<i>TimesRegistered</i> = 5)	0.00875*** (0.00061)	0.00705*** (0.00116)	0.00685** (0.00130)	0.01118*** (0.00091)
1(<i>TimesRegistered</i> = 6)	0.01210*** (0.00056)	0.01046*** (0.00105)	0.01120*** (0.00118)	0.01420*** (0.00086)
1(<i>TimesRegistered</i> = 7)	0.01936*** (0.00054)	0.01568*** (0.00099)	0.01811*** (0.00112)	0.02105*** (0.00084)
1(<i>TimesRegistered</i> = 2) × Black Frac	0.00011** (0.00005)	-0.00008 (0.00008)	0.00031** (0.00014)	0.00012 (0.00009)
1(<i>TimesRegistered</i> = 3) × Black Frac	0.00018*** (0.00005)	0.00009 (0.00008)	0.00027** (0.00013)	0.00015* (0.00009)
1(<i>TimesRegistered</i> = 4) × Black Frac	0.00010** (0.00005)	-0.00005 (0.00007)	0.00051*** (0.00012)	0.00000 (0.00008)
1(<i>TimesRegistered</i> = 5) × Black Frac	0.00005 (0.00005)	0.00001 (0.00007)	0.00020* (0.00012)	0.00001 (0.00008)
1(<i>TimesRegistered</i> = 6) × Black Frac	0.00002 (0.00004)	-0.00006 (0.00006)	0.00010 (0.00010)	0.00004 (0.00007)
1(<i>TimesRegistered</i> = 7) × Black Frac	0.00018*** (0.00004)	0.00008 (0.00006)	0.00051*** (0.00010)	0.00019*** (0.00007)
N	3,061,965	710,594	876,994	1,344,991
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month	Yes	Yes	Yes	Yes

Notes: This table reports estimates of the relationship between political participation and housing appreciation by neighborhood racial composition, measured using the share of Black residents from the 2015 ACS 1-year estimates. Column (1) presents results for the full sample of voters. Columns (2)–(4) report results separately by party affiliation: column (2) for Democratic voters, column (3) for Republican voters, and column (4) for Other voters. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA22. Annual Return Across Different Participation Levels By Neighborhood Partisanship

	(1) All Voters	(2) Democrat Voters	(3) Republican Voters	(4) Other Voters
Republican Fraction	-0.04830*** (0.00319)	-0.07520*** (0.00615)	-0.03528*** (0.00619)	-0.05731*** (0.00532)
1(<i>TimesRegistered</i> = 2)	0.00279** (0.00136)	-0.00397 (0.00242)	0.00518 (0.00335)	0.00496** (0.00211)
1(<i>TimesRegistered</i> = 3)	0.00805*** (0.00131)	0.00227 (0.00235)	0.00704** (0.00319)	0.00992*** (0.00205)
1(<i>TimesRegistered</i> = 4)	0.01073*** (0.00124)	0.00396* (0.00213)	0.01115*** (0.00309)	0.01456*** (0.00192)
1(<i>TimesRegistered</i> = 5)	0.00849*** (0.00123)	0.00717** (0.00222)	0.00382 (0.00304)	0.00996*** (0.00189)
1(<i>TimesRegistered</i> = 6)	0.01210*** (0.00115)	0.00724*** (0.00200)	0.00921*** (0.00279)	0.01522*** (0.00180)
1(<i>TimesRegistered</i> = 7)	0.02261*** (0.00109)	0.01778** (0.00189)	0.02320*** (0.00256)	0.02632*** (0.00175)
1(<i>TimesRegistered</i> = 2)× Republican Fraction	-0.00179 (0.00402)	0.02106*** (0.00817)	-0.01061 (0.00832)	-0.00434 (0.00663)
1(<i>TimesRegistered</i> = 3)× Republican Fraction	-0.00729* (0.00386)	0.00744 (0.00780)	-0.00907 (0.00791)	-0.00619 (0.00642)
1(<i>TimesRegistered</i> = 4)× Republican Fraction	-0.00265 (0.00365)	0.01409** (0.00715)	-0.00315 (0.00771)	-0.01113* (0.00604)
1(<i>TimesRegistered</i> = 5)× Republican Fraction	0.00209 (0.00363)	0.00008 (0.00741)	0.01121 (0.00762)	0.00444 (0.00595)
1(<i>TimesRegistered</i> = 6)× Republican Fraction	0.00037 (0.00338)	0.01004 (0.00675)	0.00672 (0.00694)	-0.00251 (0.00563)
1(<i>TimesRegistered</i> = 7)× Republican Fraction	-0.00618* (0.00323)	-0.00516 (0.00631)	-0.00504 (0.00641)	-0.01423*** (0.00546)
N	3,066,602	711,934	878,402	1,346,972
Birth Year FE	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes
County × Sale Year-Month	Yes	Yes	Yes	Yes

Notes: This table presents estimates of the relationship between participation and housing appreciation by neighborhood partisanship. Column (1) reports the result for all voters. Columns (2)–(4) report the results separately by political affiliation. Column (2) reports the result for Democratic voters, Column (3) reports the result for Republican voters, and Column (4) reports the result for Other voters. Standard errors in parentheses are clustered by tract. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table IA23. Voting Intensity on Housing Appreciation: Before Voting Observation Period

	(1)	(2)
	Appreciation-to-Voting: Sell Before 2014	Voting-to-Appreciation: Buy After 2014
	Annual Appreciation	Annual Appreciation
1(<i>TimesRegistered</i> = 2)	-0.00027 (0.00120)	0.00682*** (0.00137)
1(<i>TimesRegistered</i> = 3)	0.00284** (0.00117)	0.01133*** (0.00129)
1(<i>TimesRegistered</i> = 4)	0.00122 (0.00105)	0.01842*** (0.00127)
1(<i>TimesRegistered</i> = 5)	0.00179* (0.00108)	0.01756*** (0.00128)
1(<i>TimesRegistered</i> = 6)	0.00366*** (0.00097)	0.02221*** (0.00126)
1(<i>TimesRegistered</i> = 7)	0.00881*** (0.00088)	0.03941*** (0.00128)
N	1,022,360	509,311
Birth Year FE	Yes	Yes
Holding Month FE	Yes	Yes
Race FE	Yes	Yes
County × Sale Year-Month FE	Yes	Yes
Tract × Sale Year FE	Yes	Yes

Notes: This table reports estimates of housing appreciation differentials across different time periods. This analysis is intended to assess whether the appreciation differential reflects more politically engaged voters taking advantage of the post–Great Recession decline in real estate prices, and whether our 2014–2020 measure of political participation is a robust proxy for an individual’s broader level of political engagement. Column (1) presents results for properties sold before 2014. Column (2) presents results for properties purchased in 2014 or later, so that the observation window for political participation aligns exactly with the housing appreciation period. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA24. Excess Appreciation Across Groups

	(1)	(2)	(3)
	Excess Appreciation	Excess Appreciation	Excess Appreciation
1(<i>TimesRegistered</i> = 2)	-0.00190** (0.00078)	-0.00114 (0.00087)	0.00410*** (0.00074)
1(<i>TimesRegistered</i> = 3)	-0.00197** (0.00076)	-0.00155* (0.00085)	0.00740*** (0.00070)
1(<i>TimesRegistered</i> = 4)	-0.00032 (0.00088)	0.00010 (0.00097)	0.01174*** (0.00068)
1(<i>TimesRegistered</i> = 5)	0.00048 (0.00074)	0.00082 (0.00082)	0.01175*** (0.00067)
1(<i>TimesRegistered</i> = 6)	0.00000 (0.00070)	-0.00005 (0.00078)	0.01403*** (0.00064)
1(<i>TimesRegistered</i> = 7)	0.00703*** (0.00068)	0.00517*** (0.00078)	0.01872*** (0.00064)
N	1,731,504	1,422,546	1,167,164
Birth Year FE	No	Yes	Yes
Race FE	No	Yes	Yes
Holding Period	No	No	Yes
County FE	No	Yes	N/A
County × Sale Year-Month FE	No	No	Yes
Tract × Sale Year FE	No	No	Yes

Notes: This table presents estimates of excess return, measured by individual annual appreciation net of the annual appreciation suggested by tract-level house price index: $r^e = r - [(\frac{HPI^S}{HPI^B})^{\frac{1}{t^S - t^B}} - 1]$ under different fixed effect specifications. Column (1) presents the result of not absorbing any fixed effect as the baseline. Column (2) presents the results absorbing demographic fixed effects, including birth year, county and race. Column (3) presents the result with demographic fixed effects and spatial fixed effects with higher granularity, including County × Sale Year-Month, Sale Year × Tract and holding periods to control the neighborhood effects and timing of purchase. Standard errors, reported in parentheses, are clustered by tract. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA25. Homeownership/Merging Rate Differences Across Groups

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: Merging Rate for Appreciation Data				Panel B: Merging Rate for CoreLogic Data			
	Merge Rate	Merge Rate	Merge Rate	Merge Rate	Merge Rate	Merge Rate	Merge Rate	Merge Rate
1(<i>TimesRegistered</i> = 2)	0.00304*** (0.00006)	0.00378*** (0.00007)	0.00287*** (0.00006)	0.00360*** (0.00007)	0.01101*** (0.00016)	0.01377*** (0.00017)	0.01086*** (0.00018)	0.01377*** (0.00017)
1(<i>TimesRegistered</i> = 3)	0.00556*** (0.00008)	0.00611*** (0.00008)	0.00547*** (0.00008)	0.00602*** (0.00008)	0.02116*** (0.00018)	0.02314*** (0.00019)	0.02090*** (0.00020)	0.02314*** (0.00019)
1(<i>TimesRegistered</i> = 4)	0.00656*** (0.00009)	0.00721*** (0.00009)	0.00628*** (0.00009)	0.00706*** (0.00009)	0.03123*** (0.00023)	0.03383*** (0.00022)	0.03092*** (0.00024)	0.03383*** (0.00022)
1(<i>TimesRegistered</i> = 5)	0.01525*** (0.00014)	0.01425*** (0.00013)	0.01491*** (0.00014)	0.01387*** (0.00013)	0.05918*** (0.00063)	0.05396*** (0.00063)	0.05839*** (0.00063)	0.05396*** (0.00063)
1(<i>TimesRegistered</i> = 6)	0.02433*** (0.00019)	0.02134*** (0.00016)	0.02402*** (0.00018)	0.02107*** (0.00015)	0.09708*** (0.00048)	0.08225*** (0.00034)	0.09599*** (0.00046)	0.08225*** (0.00034)
1(<i>TimesRegistered</i> = 7)	0.01238*** (0.00014)	0.00430*** (0.00009)	0.01134*** (0.00013)	0.00351*** (0.00009)	0.10493*** (0.00072)	0.06148*** (0.00041)	0.10150*** (0.00067)	0.06148*** (0.00041)
Constant	0.01151*** (0.00010)	0.01613*** (0.00009)	0.01208*** (0.00010)	0.01658*** (0.00008)	0.06461*** (0.00047)	0.08579*** (0.00026)	0.06637*** (0.00039)	0.08579*** (0.00026)
N	114,987,981	90,556,143	114,987,768	90,555,961	114,987,981	90,555,961	114,987,768	90,555,961
FIPS	Yes	Yes	No	No	Yes	Yes	No	No
Tract	No	No	Yes	Yes	No	No	Yes	Yes
Gender	No	Yes	No	Yes	No	Yes	No	Yes
Birth Year	No	Yes	No	Yes	No	Yes	No	Yes
Race	No	Yes	No	Yes	No	Yes	No	Yes

Notes: This table reports match rates between the L2 voter data and the CoreLogic transaction and appreciation data. Panel A presents results for matches between the L2 data and the appreciation sample, defined as observations with valid purchase and sale records for the same property under the same name. Columns (1)–(2) report specifications with county fixed effects, while columns (3)–(4) report specifications with tract fixed effects. Panel B presents results for matches between the L2 data and the full CoreLogic transaction deeds data. Columns (5)–(6) report specifications with county fixed effects, and columns (7)–(8) report specifications with tract fixed effects. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA26. Balance Table: Income Differences Across the Electorate

	(1)	(2)	(3)	(4)
	log(Income)	log(Income)	log(Income)	log(Income)
Panel A: Measured by Registration				
1(<i>TimesRegistered</i> = 2)	0.00398 (0.00350)	0.00502 (0.00377)	-0.00419 (0.00521)	-0.00360 (0.00584)
1(<i>TimesRegistered</i> = 3)	0.00038 (0.00331)	0.00336 (0.00357)	-0.01141** (0.00495)	-0.00944* (0.00554)
1(<i>TimesRegistered</i> = 4)	-0.00555* (0.00306)	-0.00229 (0.00333)	-0.01652*** (0.00465)	-0.01274** (0.00525)
1(<i>TimesRegistered</i> = 5)	-0.00508 (0.00312)	0.00267 (0.00333)	-0.02058*** (0.00467)	-0.01569*** (0.00526)
1(<i>TimesRegistered</i> = 6)	-0.01085*** (0.00287)	-0.00675** (0.00311)	-0.01930*** (0.00438)	-0.01545*** (0.00498)
1(<i>TimesRegistered</i> = 7)	-0.03580*** (0.00268)	-0.03603*** (0.00291)	-0.01911*** (0.00425)	-0.01901*** (0.00485)
N	1,901,352	1,552,890	851,904	681,356
Panel B: Measured by Voting				
1(<i>TimesVoted</i> = 1)	0.01410*** (0.00298)	0.01613*** (0.00324)	0.00730** (0.00355)	0.01186*** (0.00403)
1(<i>TimesVoted</i> = 2)	0.01241*** (0.00297)	0.01582*** (0.00324)	0.00882** (0.00356)	0.01334*** (0.00394)
1(<i>TimesVoted</i> = 3)	-0.00024 (0.00280)	0.00504* (0.00303)	0.01219*** (0.00329)	0.01975*** (0.00373)
1(<i>TimesVoted</i> = 4)	-0.00777*** (0.00279)	-0.00129 (0.00300)	0.01098*** (0.00324)	0.02078*** (0.00365)
1(<i>TimesVoted</i> = 5)	-0.00524* (0.00286)	0.00022 (0.00306)	0.02343*** (0.00335)	0.03354*** (0.00376)
N	1,349,460	1,105,424	1,235,551	994,743
Birth Year FE	Yes	Yes	Yes	Yes
Race FE	No	Yes	No	Yes
Gender FE	No	Yes	No	Yes
FIPS FE	Yes	Yes	N/A	N/A
Sale YM × FIPS FE	No	No	Yes	Yes
Sale Year × Tract	No	No	Yes	Yes
Holding Month	No	No	Yes	Yes

Notes: This table reports income differences across voters with different levels of political participation, using the sample formed by merging the appreciation data with Home Mortgage Disclosure Act (HMDA) records, which provide homeowner income at the time of mortgage origination. Panel A uses voter registration frequency between 2014 and 2020 as the measure of democratic participation, while Panel B uses the number of presidential elections in which the voter cast a ballot between 2000 and 2016. Column (1) reports estimates with baseline fixed effects for birth year and county. Column (2) adds gender and race fixed effects. Column (3) augments the baseline specification with more granular spatial-by-time fixed effects to account for neighborhood conditions and purchase timing, and column (4) adds gender and race fixed effects to the specification in column (3). Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA27. Balance Table: Education Differences Across the Electorate

	(1)	(2)	(3)	(4)
	Years of Education	Years of Education	Years of Education	Years of Education
Panel A: Measured by Registration				
1(<i>TimesRegistered</i> = 2)	0.03242*** (0.01102)	0.03364*** (0.01218)	0.06155*** (0.01704)	0.07406*** (0.02031)
1(<i>TimesRegistered</i> = 3)	0.11471*** (0.01071)	0.12074*** (0.01180)	0.14915*** (0.01651)	0.16289*** (0.01975)
1(<i>TimesRegistered</i> = 4)	0.17131*** (0.01009)	0.18315*** (0.01105)	0.19848*** (0.01567)	0.22362*** (0.01862)
1(<i>TimesRegistered</i> = 5)	0.27526*** (0.01042)	0.29469*** (0.01145)	0.27960*** (0.01603)	0.30936*** (0.01913)
1(<i>TimesRegistered</i> = 6)	0.40740*** (0.00953)	0.42249*** (0.01049)	0.38264*** (0.01472)	0.42132*** (0.01767)
1(<i>TimesRegistered</i> = 7)	0.60374*** (0.00868)	0.60993*** (0.00953)	0.56598*** (0.01373)	0.59544*** (0.01641)
N	1,166,795	955,925	743,357	551,119
Panel B: Measured by Voting				
1(<i>TimesVoted</i> = 1)	0.29504*** (0.01145)	0.30512*** (0.01248)	0.23464*** (0.02008)	0.24737*** (0.02427)
1(<i>TimesVoted</i> = 2)	0.50747*** (0.01127)	0.53289*** (0.01221)	0.39215*** (0.02003)	0.43306*** (0.02434)
1(<i>TimesVoted</i> = 3)	0.63758*** (0.01059)	0.68137*** (0.01147)	0.48102*** (0.01891)	0.53283*** (0.02288)
1(<i>TimesVoted</i> = 4)	0.78243*** (0.01021)	0.82120*** (0.01102)	0.60127*** (0.01841)	0.65951*** (0.02238)
1(<i>TimesVoted</i> = 5)	0.92345*** (0.01024)	0.95927*** (0.01104)	0.71024*** (0.01834)	0.76303*** (0.02236)
N	759,460	623,860	395,043	283,442
Birth Year FE	Yes	Yes	Yes	Yes
Race FE	No	Yes	No	Yes
Gender FE	No	Yes	No	Yes
FIPS FE	Yes	Yes	N/A	N/A
Sale YM × FIPS FE	No	No	Yes	Yes
Tract × Sale Year FE	No	No	Yes	Yes
Holding Month	No	No	Yes	Yes

Notes: This table reports differences in years of education across voters with different levels of political participation. Education is measured using L2 data, which records educational attainment in top-coded categories; we convert these categories into corresponding years of schooling. Panel A uses voter registration frequency between 2014 and 2020 as the measure of democratic participation, while Panel B uses the number of presidential elections in which the voter cast a ballot between 2000 and 2016. Column (1) reports estimates with baseline fixed effects for birth year and county, and column (2) adds gender and race fixed effects. Column (3) augments the baseline specification with more granular spatial-by-time fixed effects to account for neighborhood conditions and purchase timing, and column (4) adds gender and race fixed effects to the specification in column (3). Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA28. Balance Table: Wealth Differences Across the Electorate

	(1)	(2)	(3)	(4)
	Net Wealth (in \$10,000)	Net Wealth (in \$10,000)	Net Wealth (in \$10,000)	Net Wealth (in \$10,000)
Panel A: Measured by Registration				
1(<i>TimesRegistered</i> = 2)	0.47737 (0.79325)	1.27920 (0.86831)	-0.05332 (1.23811)	0.79458 (1.38080)
1(<i>TimesRegistered</i> = 3)	0.19095 (0.81553)	1.20534 (0.89977)	0.30794 (1.16117)	1.08277 (1.35494)
1(<i>TimesRegistered</i> = 4)	-1.08626 (0.73822)	-0.30646 (0.78590)	-1.87223 (1.24214)	-2.18891* (1.24471)
1(<i>TimesRegistered</i> = 5)	0.00539 (0.78623)	0.99345 (0.87906)	-1.44728 (1.19394)	-0.60828 (1.26384)
1(<i>TimesRegistered</i> = 6)	1.07517 (0.76703)	1.63378** (0.82501)	-0.61635 (1.21719)	-0.61260 (1.25392)
1(<i>TimesRegistered</i> = 7)	-1.01407 (0.67214)	-0.50624 (0.72611)	-1.02155 (1.08284)	-0.42697 (1.07692)
N	18,222	15,980	12,626	10,591
Panel B: Measured by Voting				
1(<i>TimesVoted</i> = 1)	1.34390 (0.94423)	1.11553 (1.07882)	-0.70560 (1.51687)	-0.58564 (1.47215)
1(<i>TimesVoted</i> = 2)	1.00096 (0.79213)	0.81809 (0.84267)	0.14082 (1.30852)	0.18173 (1.28193)
1(<i>TimesVoted</i> = 3)	-0.17584 (0.74402)	-0.68503 (0.82772)	-0.51597 (1.32289)	-0.53385 (1.31622)
1(<i>TimesVoted</i> = 4)	0.73423 (0.82498)	0.55427 (0.89715)	-0.05442 (1.37818)	-0.01194 (1.36646)
1(<i>TimesVoted</i> = 5)	-0.16453 (0.72732)	-0.68435 (0.79756)	-0.74813 (1.26043)	-0.70213 (1.27577)
N	13,352	11,810	8,086	8,086
Birth Year FE	Yes	Yes	Yes	Yes
Race FE	No	Yes	No	Yes
Gender FE	No	Yes	No	Yes
FIPS FE	Yes	Yes	N/A	N/A
Sale YM × FIPS FE	No	No	Yes	Yes
Tract × Sale Year FE	No	No	Yes	Yes
Holding Month	No	No	Yes	Yes

Notes: This table reports differences in net wealth, measured in units of \$10,000, across voters with different levels of political participation, using the sample formed by merging the appreciation data with North Carolina credit records. Panel A uses voter registration frequency between 2014 and 2020 as the measure of democratic participation, while Panel B uses the number of presidential elections in which the voter cast a ballot between 2000 and 2016. Column (1) reports estimates with baseline fixed effects for birth year and county, and column (2) adds gender and race fixed effects. Column (3) augments the baseline specification with more granular spatial-by-time fixed effects to account for neighborhood conditions and purchase timing, and column (4) adds gender and race fixed effects to the specification in column (3). Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA29. Balance Table: Credit Performance Differences Across the Electorate

	(1) Credit Score	(2) Liabilities	(3) In 30 Days	(4) In 60 Days	(5) In 90 Days	(6) Bankruptcies	(7) Foreclosures
Panel A: Measured by Registration							
1(<i>TimesRegistered</i> = 2)	3.17854 (4.70260)	-0.09540 (1.46009)	0.00160 (0.03820)	-0.00884 (0.02652)	-0.01991 (0.01871)	-0.00150 (0.00998)	0.00715 (0.02870)
1(<i>TimesRegistered</i> = 3)	9.29843* (4.79091)	0.69263 (1.42513)	-0.01398 (0.03722)	-0.00662 (0.02360)	-0.02398 (0.01686)	-0.01665* (0.00910)	-0.01119 (0.03048)
1(<i>TimesRegistered</i> = 4)	5.18693 (4.66905)	1.28991 (1.52240)	-0.02069 (0.03508)	-0.01532 (0.02431)	-0.02180 (0.01777)	0.00126 (0.01035)	-0.02892 (0.02879)
1(<i>TimesRegistered</i> = 5)	5.74789 (4.94517)	1.18093 (1.32367)	0.02375 (0.03625)	0.00516 (0.02435)	-0.01888 (0.01765)	0.00072 (0.00920)	-0.00788 (0.02725)
1(<i>TimesRegistered</i> = 6)	9.48508** (4.64337)	1.12048 (1.46903)	-0.00711 (0.03558)	0.00150 (0.02397)	-0.02861* (0.01674)	-0.00702 (0.00898)	-0.02528 (0.02698)
1(<i>TimesRegistered</i> = 7)	13.77815*** (4.56268)	0.28873 (1.33170)	-0.03724 (0.03434)	-0.01367 (0.02254)	-0.02792* (0.01585)	-0.01449* (0.00867)	-0.02136 (0.02650)
N	21,165	21,165	21,165	21,165	21,165	21,165	21,165
Panel B: Measured by Voting							
1(<i>TimesVoted</i> = 1)	0.93318 (3.67979)	0.22719 (1.11239)	0.03320 (0.02966)	0.01228 (0.02107)	-0.00361 (0.01298)	0.01807** (0.00788)	-0.02404 (0.02205)
1(<i>TimesVoted</i> = 2)	2.86719 (3.52671)	1.65394 (1.22224)	0.00147 (0.02948)	0.00352 (0.02019)	-0.00681 (0.01357)	0.01169 (0.00799)	-0.02989 (0.02059)
1(<i>TimesVoted</i> = 3)	2.11687 (3.60508)	1.00768 (1.04051)	-0.02870 (0.02921)	-0.01634 (0.02038)	-0.01228 (0.01265)	0.01502** (0.00758)	-0.03869* (0.02082)
1(<i>TimesVoted</i> = 4)	6.60850* (3.53851)	0.40487 (1.14650)	-0.03899 (0.02771)	-0.00063 (0.02000)	-0.00516 (0.01350)	0.00301 (0.00777)	-0.01492 (0.02185)
1(<i>TimesVoted</i> = 5)	10.12534*** (3.58739)	0.18880 (1.21655)	-0.03590 (0.02859)	-0.02304 (0.02030)	-0.01239 (0.01370)	0.00812 (0.00787)	-0.01157 (0.02077)
N	8,091	8,091	8,091	8,091	8,091	8,091	8,091
Sale YM × FIPS FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Birth Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Holding Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table reports differences in credit performance across voters with different levels of political participation, using the sample formed by merging the appreciation data with North Carolina credit records. Panel A uses voter registration frequency between 2014 and 2020 as the measure of democratic participation, while Panel B uses the number of presidential elections in which the voter cast a ballot between 2000 and 2016. The dependent variables are credit score, total liabilities, indicators for being 30, 60, and 90 days delinquent, bankruptcy, and foreclosure, as reported in columns (1)–(7). All specifications include sale year-month by FIPS fixed effects, tract by sale-year fixed effects, birth-year fixed effects, holding-period fixed effects, and race and gender fixed effects. Standard errors, reported in parentheses, are clustered at the tract level. ***, ** and * indicate significance at 1%, 5% and 10% level, respectively.

Table IA30. Annual Hedonic Appreciation Along Different Levels of Political Participation, Measured by Registration

	(1)	(2)	(3)	(4)	(5)
	Baseline	Hedonic Price Return			
	All Voters	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Hedonic Appreciation	Hedonic Appreciation	Hedonic Appreciation	Hedonic Appreciation
Panel A: Tract-Level Fixed Effects					
1(<i>TimesRegistered</i> = 2)	0.00109* (0.00059)	0.00008 (0.00021)	0.00013 (0.00059)	-0.00022 (0.00053)	0.00035 (0.00040)
1(<i>TimesRegistered</i> = 3)	0.00425*** (0.00057)	-0.00023 (0.00020)	-0.00062 (0.00056)	-0.00004 (0.00049)	-0.00045 (0.00037)
1(<i>TimesRegistered</i> = 4)	0.00607*** (0.00054)	-0.00017 (0.00019)	-0.00069 (0.00052)	-0.00015 (0.00046)	0.00003 (0.00035)
1(<i>TimesRegistered</i> = 5)	0.00622*** (0.00054)	-0.00036* (0.00019)	-0.00084 (0.00053)	-0.00034 (0.00046)	-0.00019 (0.00035)
1(<i>TimesRegistered</i> = 6)	0.00874*** (0.00050)	-0.00026 (0.00017)	-0.00042 (0.00049)	-0.00018 (0.00043)	0.00020 (0.00033)
1(<i>TimesRegistered</i> = 7)	0.01244*** (0.00049)	-0.00080*** (0.00016)	-0.00139*** (0.00046)	-0.00059 (0.00041)	-0.00025 (0.00032)
N	1,301,891	1,301,891	194,751	252,873	469,466
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes	Yes
Panel B: Congressional District-Level Fixed Effects					
1(<i>TimesRegistered</i> = 2)	0.00104* (0.00054)	-0.00007 (0.00018)	0.00011 (0.00036)	-0.00022 (0.00035)	-0.00002 (0.00027)
1(<i>TimesRegistered</i> = 3)	0.00403*** (0.00051)	-0.00037** (0.00017)	0.00002 (0.00035)	-0.00016 (0.00033)	-0.00060** (0.00025)
1(<i>TimesRegistered</i> = 4)	0.00627*** (0.00048)	-0.00032** (0.00016)	-0.00008 (0.00032)	-0.00028 (0.00031)	-0.00032 (0.00024)
1(<i>TimesRegistered</i> = 5)	0.00620*** (0.00049)	-0.00041** (0.00016)	-0.00045 (0.00033)	-0.00039 (0.00031)	-0.00043* (0.00024)
1(<i>TimesRegistered</i> = 6)	0.00816*** (0.00045)	-0.00066*** (0.00015)	-0.00053* (0.00030)	-0.00084*** (0.00029)	-0.00053** (0.00022)
1(<i>TimesRegistered</i> = 7)	0.01268*** (0.00044)	-0.00119*** (0.00014)	-0.00129*** (0.00028)	-0.00126*** (0.00027)	-0.00108*** (0.00021)
N	1,529,978	1,529,978	356,707	426,459	712,416
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Congressional District × Sale Year FE	Yes	Yes	Yes	Yes	Yes
Panel C: Block Group-Level Fixed Effects					
1(<i>TimesRegistered</i> = 2)	0.00046 (0.00070)	-0.00004 (0.00026)	0.00115 (0.00084)	-0.00024 (0.00071)	0.00012 (0.00052)
1(<i>TimesRegistered</i> = 3)	0.00329*** (0.00068)	-0.00030 (0.00024)	-0.00033 (0.00078)	-0.00022 (0.00066)	-0.00066 (0.00047)
1(<i>TimesRegistered</i> = 4)	0.00584*** (0.00064)	-0.00022 (0.00022)	-0.00103 (0.00071)	-0.00038 (0.00062)	-0.00004 (0.00045)
1(<i>TimesRegistered</i> = 5)	0.00576*** (0.00064)	-0.00055** (0.00022)	-0.00038 (0.00074)	-0.00040 (0.00063)	-0.00023 (0.00045)
1(<i>TimesRegistered</i> = 6)	0.00852*** (0.00061)	-0.00018 (0.00021)	-0.00011 (0.00068)	-0.00005 (0.00058)	0.00025 (0.00043)
1(<i>TimesRegistered</i> = 7)	0.01179*** (0.00058)	-0.00057*** (0.00020)	-0.00093 (0.00065)	-0.00032 (0.00056)	-0.00000 (0.00041)
N	983,947	983,947	106,399	148,937	305,720
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Block Group × Sale Year FE	Yes	Yes	Yes	Yes	Yes

Notes: This table reports annual housing appreciation by level of political participation, measured by the number of times an individual was registered to vote. Column (1) presents the baseline estimates for realized annual appreciation, while columns (2)–(5) report estimates for synthetic hedonic appreciation. Synthetic hedonic returns are constructed using a leave-one-county-out hedonic framework that applies national trends in the valuation of structural housing characteristics, thereby isolating the systematic, non-idiosyncratic component of housing returns. Column (2) reports results for all voters, and columns (3)–(5) report results separately for Democratic voters, Republican voters, and Other voters. The main regressors are indicators for the number of times an individual was registered to vote, with voters registered only once serving as the omitted category. Panel A reports specifications with tract-by-sale-year fixed effects, Panel B with congressional-district-by-sale-year fixed effects, and Panel C with block-group-by-sale-year fixed effects. All specifications include birth-year fixed effects, holding-month fixed effects, and county-by-sale-year-month fixed effects. Standard errors, reported in parentheses, are clustered at the tract level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Table IA31. Annual Hedonic Appreciation Along Different Levels of Political Participation, Measured by Voting

	(1)	(2)	(3)	(4)	(5)
	Baseline	Hedonic Price Return			
	All Voters	All Voters	Democrat Voters	Republican Voters	Other Voters
	Annual Appreciation	Hedonic Appreciation	Hedonic Appreciation	Hedonic Appreciation	Hedonic Appreciation
Panel A: Tract-Level Fixed Effects					
1(<i>TimesVoted</i> = 1)	0.00054 (0.00067)	-0.00003 (0.00021)	0.00030 (0.00076)	-0.00093 (0.00066)	0.00033 (0.00034)
1(<i>TimesVoted</i> = 2)	0.00234*** (0.00066)	0.00024 (0.00020)	0.00121* (0.00071)	0.00045 (0.00064)	0.00045 (0.00034)
1(<i>TimesVoted</i> = 3)	0.00161** (0.00064)	-0.00123*** (0.00019)	-0.00108 (0.00066)	-0.00190*** (0.00060)	-0.00065** (0.00033)
1(<i>TimesVoted</i> = 4)	0.00397*** (0.00062)	-0.00046** (0.00019)	-0.00049 (0.00064)	-0.00136** (0.00058)	-0.00017 (0.00032)
1(<i>TimesVoted</i> = 5)	0.00817*** (0.00062)	0.00024 (0.00018)	0.00077 (0.00064)	-0.00049 (0.00057)	0.00030 (0.00033)
N	798,106	798,106	105,369	142,260	253,830
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Tract × Sale Year FE	Yes	Yes	Yes	Yes	Yes
Panel B: Congressional District-Level Fixed Effects					
1(<i>TimesVoted</i> = 1)	-0.00056 (0.00057)	-0.00007 (0.00017)	-0.00025 (0.00042)	-0.00030 (0.00040)	0.00009 (0.00021)
1(<i>TimesVoted</i> = 2)	0.00062 (0.00055)	0.00015 (0.00016)	0.00013 (0.00040)	-0.00013 (0.00038)	0.00025 (0.00020)
1(<i>TimesVoted</i> = 3)	0.00057 (0.00053)	-0.00141*** (0.00015)	-0.00177*** (0.00037)	-0.00196*** (0.00036)	-0.00108*** (0.00020)
1(<i>TimesVoted</i> = 4)	0.00310*** (0.00052)	-0.00053*** (0.00015)	-0.00078** (0.00036)	-0.00087** (0.00034)	-0.00034* (0.00019)
1(<i>TimesVoted</i> = 5)	0.00854*** (0.00053)	0.00019 (0.00015)	0.00012 (0.00035)	-0.00016 (0.00034)	0.00035* (0.00019)
N	1,016,747	1,016,747	237,512	286,548	466,478
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Congressional District × Sale Year FE	Yes	Yes	Yes	Yes	Yes
Panel C: Block Group-Level Fixed Effects					
1(<i>TimesVoted</i> = 1)	0.00090 (0.00079)	0.00029 (0.00026)	0.00101 (0.00109)	0.00013 (0.00095)	0.00079* (0.00047)
1(<i>TimesVoted</i> = 2)	0.00295*** (0.00078)	0.00056** (0.00025)	0.00136 (0.00103)	0.00227** (0.00091)	0.00081* (0.00045)
1(<i>TimesVoted</i> = 3)	0.00242*** (0.00076)	-0.00074*** (0.00024)	-0.00015 (0.00098)	-0.00045 (0.00087)	-0.00030 (0.00045)
1(<i>TimesVoted</i> = 4)	0.00474*** (0.00074)	-0.00004 (0.00023)	0.00018 (0.00093)	0.00014 (0.00082)	0.00025 (0.00044)
1(<i>TimesVoted</i> = 5)	0.00858*** (0.00073)	0.00054** (0.00023)	0.00132 (0.00093)	0.00099 (0.00083)	0.00089** (0.00045)
N	550,663	550,663	51,209	75,780	144,886
Birth Year FE	Yes	Yes	Yes	Yes	Yes
Holding Month FE	Yes	Yes	Yes	Yes	Yes
County × Sale Year-Month FE	Yes	Yes	Yes	Yes	Yes
Block Group × Sale Year FE	Yes	Yes	Yes	Yes	Yes

Notes: This table reports annual housing appreciation by level of political participation, measured by the number of presidential elections in which an individual voted. Column (1) presents the baseline estimates for realized annual appreciation, while columns (2)–(5) report estimates for synthetic hedonic appreciation. Synthetic hedonic returns are constructed using a leave-one-county-out hedonic framework that applies national trends in the valuation of structural housing characteristics, thereby isolating the systematic, non-idiosyncratic component of housing returns. Column (2) reports results for all voters, and columns (3)–(5) report results separately for Democratic voters, Republican voters, and Other voters. The main regressors are indicators for the number of times an individual voted in presidential elections between 2000 and 2016, conditional on registration in 2020, with individuals who never voted serving as the omitted category. Panel A reports specifications with tract-by-sale-year fixed effects, Panel B with congressional-district-by-sale-year fixed effects, and Panel C with block-group-by-sale-year fixed effects. All specifications include birth-year fixed effects, holding-month fixed effects, and county-by-sale-year-month fixed effects. Standard errors, reported in parentheses, are clustered at the tract level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.