Regulating the Growth Machine: Campaign Contributions, Zoning Environments, and Housing Supply in U.S. Cities

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Abstract

Money in politics is the subject of great debate at every level of government, yet it has principally been studied at the federal level in the U.S. In this paper, we describe and leverage a novel data set of over 3 million municipal election campaign contributions in U.S. cities from the past several decades. We focus on real estate industry contributions and their influence in the context of the acute housing affordability crisis across many American municipalities. Using generalized difference-in-differences panel designs, we find that increased contributions from real estate development groups lead to greater permitting of multi-family housing, while effects on single-family housing are more mixed. This relationship varies with the local regulatory environment. In cities with above-median zoning regulation, donations are associated with increases in multi-family permitting; in less regulated cities, donations are not associated with such increases in multi-family housing permits. These effects are real but modest relative to the existing housing stock of large, heavily regulated cities. Together, our findings suggest that developer campaign donations are influential, particularly because of a regulatory system that forces housing supply decisions through discretionary political channels.

Keywords: organized interests, interest groups, local politics, local policy, money in politics

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1 Introduction

American cities face a housing affordability crisis with few historical parallels. Home prices and rents have risen sharply relative to incomes in many metropolitan areas, displacing lower-income residents and constraining economic mobility (Glaeser, Gyourko and Saks 2005; Gyourko, Hartley and Krimmel 2021). A growing body of evidence shows the regulatory environment governing housing supply is a central driver of this crisis. Local zoning ordinances, permitting processes, and discretionary review requirements significantly constrain the construction of new housing, particularly multi-family units (Gyourko, Saiz and Summers 2008; Gyourko and Molloy 2015; Molloy 2020). Where such regulations are most restrictive, market signals alone cannot easily translate demand for housing into new supply. Instead, decisions about what gets built are filtered through political channels: the participation of the mass public in policy debates (e.g. Einstein, Glick and Palmer 2019; Sahn 2025*a*) and official political representation by elected officials (e.g. Einstein, Ornstein and Palmer 2023; Hankinson and Magazinnik 2022). This creates conditions in which voters, organized interests, and campaign contributions may all shape housing outcomes.

In this paper, we investigate how one such political channel operates: campaign contributions from real estate industry groups to local political candidates. Using an original data set of over 3 million municipal campaign contributions covering 1,123 cities across the United States combined with Census building permits data, we examine whether real estate industry donations are associated with changes in housing permitting outcomes. We employ generalized difference-in-differences panel research designs with city and state-year fixed effects to assess the impact of contributions on single-family and multi-family housing permits in the years following local elections. We then leverage variation in the stringency of local zoning regulation to test whether the relationship between donations and permitting outcomes depends on the regulatory environment.

We have two central findings. First, real estate industry contributions are associated with significant increases in raw multi-family housing permitting. Second, and most importantly, this association is conditioned by the local regulatory context. In the full sample of contributions, more real estate industry contributions are associated with significant increases in multi-family housing permits that grow in magnitude over the years following an election. Effects on single-family housing

are more mixed, indicating negative effects early after elections and positive effects in years further from elections. However, when we split our sample by the stringency of local zoning regulation using a measure of zoning restrictiveness (Bartik, Gupta and Milo 2023), a distinct pattern emerges. In cities with above-median zoning regulation, an additional donation is associated with increases in multi-family permitting (approximately three additional units permitted) and mixed effects on single-family permitting. In less regulated cities, the pattern shifts: donations are not reliably associated with increases or decreases in overall housing permitting, even when broken out by multi-family or single-family housing. These results suggest that where regulation is most restrictive and permit review is more discretionary, political channels can facilitate the influence of interest groups on multi-family housing construction.

However, while these raw effects are real, their size is modest relative to the existing housing stock of the large, highly regulated cities in our sample. This is consistent with our broader finding: developer donations are not transforming housing markets. They are a symptom of regulatory environments that channel supply decisions through politics, and their effects, while statistically detectable, represent marginal adjustments within heavily constrained systems.

Descriptive patterns in our data reinforce this interpretation. Real estate industry contributors donate more in cities that build large quantities of housing overall but permit fewer units relative to their state average in a given year. This pattern suggests that industry donors target supply-constrained markets where political action might unlock additional development. Furthermore, though real estate donors direct their contributions disproportionately to incumbent candidates when they are running, they donate more money on average in races without an incumbent running. In those open-seat races, however, they often donate to more than one candidate, and their contributions are no more influential on permitting when they donate to the eventual winner than to the loser of the race. These patterns support an access mechanism of influence: the real estate industry appears to seek policy change through supporting existing incumbents who are likely to be re-elected (de Benedictis-Kessner 2026) as well as new candidates who might or might not win.

These results contribute to several strands of scholarship. First, we advance the study of interest group influence in local politics (Anzia 2019*a*, 2022). While recent work has documented that

organized interests are active and potentially powerful at the local level (Anzia 2019*b*; Gaudette 2025; Carreri, Teso and Yu 2026), empirical evidence linking campaign contributions to specific policy outcomes in municipal government has been scarce, in part because of the historical difficulty of gathering local campaign finance data at scale (Adams 2011). Our data set, which spans over a thousand cities and over two decades, enables a more comprehensive assessment than prior work that focused on individual large cities (Adams 2006, 2007; Fleischmann and Stein 1998; Heerwig and McCabe 2019; Krebs 2001). Second, we contribute to the literature on the political economy of housing supply. Scholars have documented the role of homeowner opposition (Einstein, Glick and Palmer 2019; Einstein, Palmer and Glick 2019; Hankinson 2018), exclusionary zoning (Sahn 2025*b*; Whittemore 2021), and local regulatory discretion (Glaeser, Gyourko and Saks 2005; Mast 2020) in constraining housing construction. We add to this body of work by showing that the same regulatory structures that constrain supply also create conditions under which interest groups have policy leverage. In doing so, we bridge the "growth machine" literature's emphasis on developer political influence (Logan and Molotch 1987; Molotch 1976, 1993) with the regulatory constraints literature (Gyourko, Saiz and Summers 2008; Gyourko, Hartley and Krimmel 2021), arguing that these are not competing explanations but rather complementary parts of the same system.

Our findings do not provide evidence that developer donations are harmful or that the real estate industry is distorting housing policy against the public interest. To the contrary, in many of the cities in our data, the direction of the effect – more multi-family housing – aligns with what housing economists broadly recommend to address the deep affordability crisis facing so many Americans (Been, Ellen and O'Regan 2019; Glaeser, Gyourko and Saks 2005). Our deeper finding is about the political system itself: when local regulation grants substantial discretion over what gets built through restrictive zoning, housing supply decisions become political decisions. Interest groups with a stake in development outcomes, whether developers, homeowner associations, or neighborhood groups, will invest in those political channels accordingly. The fact that developer donations "work" at all is evidence of how much discretion local regulation creates. One primary policy implication of our results is that reducing regulatory discretion through zoning reform could diminish the role of interest groups (and their money) in determining housing outcomes. This could

shift supply decisions back toward market channels where demand can translate more directly into new construction.

The remainder of the paper proceeds as follows. We first outline theoretical expectations for how interest group financial contributions might influence local policy, with particular attention to the role of regulatory stringency. We then describe our novel data on municipal campaign contributions and housing permits, detail our research design, and present results. We conclude by discussing the implications of our findings for the study of interest group influence, housing policy, and local democratic governance.

2 Theoretical Expectations

Previous work studying interest group influence, particularly financial influence, has theorized that interest groups influence politics through several potential avenues: (1) providing information to policymakers, (2) altering policymakers' positions, and (3) changing the composition of government and who makes policy decisions. These first two pathways could operate primarily through buying *access* to politicians with contributions (Fouirnaies and Hall 2014, 2018; Kalla and Broockman 2016; Powell and Grimmer 2016), while the third would operate by targeting donations only to politically-aligned politicians.

The information provision pathway posits that interest groups can influence policy outcomes through the information they provide (Hall and Deardorff 2006). Under this theory, interest groups use their resources and issue area expertise to provide information to policymakers, which in turn influences how policy is designed. Theoretically, the lower the level of government, the more influential the information provision should be, assuming that lower levels of government are also less resourced than federal policymakers.[1]

The second potential pathway by which interest groups could influence policy – and by far the most popular in general political coverage – is by altering policymakers' positions, especially via financial means. Under this theory, elected policymakers change their positions in response to financial contributions from interest groups to conform to interest group preferences (e.g. Hall and

[1] In an interview with a Washington State pro-housing industry group, executives emphasized to us the importance of providing information about permitting processes and housing developer preferences to policymakers.

Wayman 1990; Peltzman 1984; Silberman and Durden 1976; Stratmann 1991; cf. Ansolabehere, De Figueiredo and Snyder Jr 2003). A more charitable read of this theory would combine information provision with changing candidate views.[2]

A third theory is that interest groups influence policy by providing financial contributions to candidates whose policy positions align with those of the interest group (e.g. Bronars and Lott 1997). By contributing to these politicians' campaigns – increasing their chances of winning, particularly in low-budget local elections (Adams 2010) – interest groups can change the composition of government. The policymakers holding power might then be more aligned with interest groups' preferences. Changing one policymaker can also have knock-on effects as other members of the governing body learn about voter preferences. For instance, if a city council candidate handily wins election running on an issue position that differs significantly from those of the other city council members, the other members may shift their positions in light of future electoral concerns.[3]

These theories provide clear but potentially contradictory implications for how interest group influence plays out. Due to the opacity of federal and state policymaking, and the lack of variation over time or across geography, research has been limited in its ability to comprehensively assess important questions about financial influence over policy.

These potential explanations are further complicated by the introduction of elected official discretion over the relevant policy area. At the federal level, discretionary enforcement creates a reason for political investment even without a direct exchange of contributions for favors (Gordon and Hafer 2005), since most discretionary choices are made by bureaucrats who cannot be directly influenced through financial contributions unless illegal activity occurs. At the local level, however, many decisions are directly made by elected officials who also need financial resources to get into and keep their offices, creating the opportunity for organized interests to directly influence policy outcomes. Land use regulations and permitting are prime examples of this. Thus, we should expect

[2]Indeed, in one interview with a Washington housing industry interest group, they noted that contributions were often an attempt to develop a relationship with a policymaker so they could provide them with pro-housing information that might lead to a change of policy down the road.

[3]One Washington state housing industry interest group noted that open elections were their preferred races in which to engage financially. Races where no one held an incumbency advantage were the ones where they could have the greatest impact by supporting pro-housing candidates, which tended to be the most efficient use of their money in terms of achieving policy change.

contributors affiliated with the real estate industry to donate more in municipalities where land use regulations give elected officials greater discretion over new developments.

Municipal politics provides a perfect testing ground for theories of interest group policy influence. There are nearly 20,000 incorporated cities, towns, and villages in the United States, and local elected offices make up the vast majority of elected officials in the United States. Local governments provide a large degree of institutional and contextual variation that enables examination of the mechanisms behind whether and how interest groups influence policy or how the regulatory environment moderates that influence.

A burgeoning literature has recently recognized that local politics is an excellent realm in which to examine the dynamics of interest group policy influence (Anzia 2019*a*). This work has largely concluded that interest groups may have a powerful influence on local policy (Anzia 2011, 2013, 2019*b*, 2022). Until recently, however, campaign contribution data was generally insufficient to rigorously test the financial influence theories developed at the national level in the municipal context.

Partisanship and ideology are important influences on fiscal policy (de Benedictis-Kessner and Warshaw 2016, 2020; Tausanovitch and Warshaw 2014). Yet partisanship may only be one part of the motivation for policy change at the local level. Some areas of local policy may hew to ideological divides present in national politics, yet other areas may depart from this ideological spectrum (Bucchianeri et al. 2021; de Benedictis-Kessner et al. 2026). More traditionally ideological policy areas may also be the areas that are devoid of interest group activity at the local level – or at least where interest groups are less active (Anzia 2021). As a result, we might expect interest group influence to have effects in critical non-fiscal policy domains where such groups are most active, such as housing and policing (Anzia 2021; Gaudette 2025).

Housing policy provides a particularly intriguing issue area in which to study interest group influence at the local level. Housing policy and development more generally may not fall along traditional ideological or partisan divisions (Bucchianeri et al. 2021; Hankinson 2018, though see de Benedictis-Kessner, Jones and Warshaw 2025), especially given the ideologically agnostic nature of the urban growth machine (Logan and Molotch 1987; Molotch 1976, 1993). Yet the vast majority

of homeowners are strongly opposed to new housing (Hankinson 2018; Sahn 2025*a*; Yoder 2020). Meanwhile, renters and the real estate industry – and developers in particular – often support new development (Hankinson 2018). The YIMBY ("Yes In My Backyard") movement has also emerged in recent years as an interest group in support of increased housing with a particular focus on multi-family units.[4] The presence of these groups on opposing sides of the issue often leads to contentious local policymaking around housing (Einstein, Glick and Palmer 2019; Einstein, Palmer and Glick 2019).

The key priorities for such pro-housing groups are typically zoning regulations, construction fees, environmental reviews, and at the top of the list: permit timelines. When an industry interest group decides that a candidate is likely to be a strong pro-housing policymaker, they also encourage member companies to donate, increasing the importance of an interest group's donation because it is typically followed by donations from associated businesses. These companies are usually not giving to a specific race in order to get a specific development approved; rather, member donations may be intended to change the regulatory environment to permit more housing development in general.

Even where there is no candidate with preferred policy positions, industry groups try to develop good relationships with incumbents to provide them with information and, if the policy equilibrium changes, have a voice in the process. These motivations suggest that interest groups seek to influence policy by changing the composition of relevant governing bodies, but also leverage information provision to potentially change the minds of existing policymakers as a means of changing policy outcomes.

Interest group activity, of course, could just be one small part of the contention around housing policy that results in the status quo of housing development. Housing policy may simply be captured by the establishment anti-development interests of the wealthy and/or existing homeowners (Einstein, Glick and Palmer 2019; Glaeser, Gyourko and Saks 2005), using increased regulation to limit new housing (Molloy 2020). Local residents' influence over discretionary housing policy is a prime cause of the undersupply of housing in cities (Glaeser, Gyourko and Saks 2005; Mast 2020).

[4]See, e.g., Dougherty (2016).

The political economy in most municipalities is skewed toward anti-development interests: established residents tend to contribute a disproportionate share of donations in local politics (Heerwig and McCabe 2019), and incumbents collect the majority of donations in municipal elections (Fleischmann and Stein 1998; Holbrook and Weinschenk 2014). These combined patterns suggest that in the arena of housing policy, donors may be contributing to incumbent office-holders who already agree with them – and support the entrenched nature of the status quo on development.

However, past work on campaign finance in local politics has demonstrated that candidates rely upon contributions from a broad base that extends beyond those aligned with their interests, suggesting some potential for the alternative theoretical pathways by which financial influence may appear in policy outcomes. Candidates who are unable to secure campaign donations are unlikely to win office (Adams 2018), and they tend to gather donations from contributors who are not residents of their city (Adams 2006). Industry groups also donate a large share of candidate money (Hogan and Simpson 2001), suggesting that they see some value or potential return to their contributions. These patterns suggest an alternative to the possibility described above: a need for financial contributions from broader sources of support (and especially interest groups) might lead local politicians to cater to the interests of those donors – and make different policy decisions as a result.

Most of this broader past work on financial contributions in local politics has relied on data from large cities. For example, Adams (2006, 2007) looks at fundraising in Seattle, New York, Los Angeles, and San Francisco. Similarly, Fleischmann and Stein (1998) study campaign contributions in St. Louis and Atlanta elections, while Heerwig and McCabe (2019) analyze the 2013 Seattle elections, Krebs (2001) looks at Los Angeles and Chicago city council fundraising, and Hogan and Simpson (2001) dig into three Chicago mayoral elections. In a more comprehensive approach, Holbrook and Weinschenk (2014) analyze data from the 165 most populous cities in the country, but their analysis is restricted to campaign spending rather than campaign *contributions*.

While this body of work provides important insights into campaign finance at the local level, data on contributions more broadly in local politics has been historically scarce. Thus we still know relatively little about interest group contribution behavior in the majority of municipal elections

that occur outside of large cities. Much of the previous work on campaign finance in local elections has also largely focused on describing the existence and scope of interest group financial participation, but left unanswered the potential *influence* of those interest groups' financial contributions (Adams 2011).

These previous findings point to several distinct expectations for these types of questions. Given that campaign contributions have an impact on local elections, and that interest groups actively contribute to candidates in those local elections, we should expect to find that interest group contributions are associated with policy changes that align with interest group preferences either through changing policymakers' minds or changing the composition of policymakers in elected positions. In the case of real estate industry contributors, higher levels of contributions might therefore be associated with greater housing development in a given city.

3 Data

To address these questions, we collect data on both contributions to local political candidates and housing policy outcomes in cities in the United States. We supplement these data with city-level contextual measures, including the restrictiveness of each locality's zoning regulations.

3.1 Local Campaign Contributions

First, we collect original data on campaign contributions from across the country. Our data encompasses contributions from 1998 to 2023 for municipal elections in a total of 1123 cities across 27 states. In Table 1, we present descriptive statistics on our full contributions data for the top ten states in which we have the greatest number of contributions as well as the entire contributions dataset across all 27 states. The bulk of our data is concentrated in California, New York, South Carolina, Virginia, and Washington.

Due to the lack of uniform data reporting requirements across states and (in most cases) across cities within states, these data come from a variety of sources. We download the entirety of campaign contributions data in all cities and towns in Washington, where local election donations of $25 or more are required to be reported and the data is made publicly available from 2009

onward.[5] Iowa, South Carolina, and Virginia similarly require all local election donations to be reported, though the threshold for reporting is $25 in Iowa and $100 or more in South Carolina and Virginia. Outside of these states, we targeted large cities that had any data available more opportunistically and gathered data from a variety of sources. In California, a large share of the data comes from Los Angeles, but most are from mid-sized cities. This is because in California, many cities use a common data contractor, NetFile, whose API makes campaign contributions data available in similar format across cities. In Florida we gathered data from Miami, Tallahassee, Bradenton, and Tampa, while in Illinois we gathered data predominantly from Chicago, as well as some data from Springfield.[6] The median donation across all states is just over $100, while the average contribution in our dataset is $462.

Table 1: Descriptive statistics of full contributions data

State	# cities	# donations	# candidates	Avg. donation ($)	Median donation ($)
New York	9	992,270	1,910	$597	$100
California	55	939,573	1,651	$523	$250
Washington	114	422,485	1,941	$137	$100
Massachusetts	47	390,314	723	$204	$100
District of Columbia	1	193,272	273	$356	$125
Illinois	2	133,116	392	$1,269	$500
South Carolina	531	111,695	3,530	$306	$150
Iowa	101	76,176	916	$212	$100
Virginia	177	67,961	781	$686	$250
Alaska	1	54,583	60	$215	$100
Total	1,123	3,576,119	13,486	$462	$101

Figure 1 presents our full dataset of campaign contributions in local elections. Each circle on the map represents a single city, with its size scaled to the total sum of donations in that city. This map demonstrates both the broad geographic spread of our cities as well as the concentration of our data in several states for which we were able to collect universal contributions data.

[5] These data provide universal coverage of this state, where the median city has a population of 136,588. Seattle makes up about 20% of the observations in Washington, meaning the remainder of the data comes from small to mid-sized cities.

[6] Appendix A provides more details on our data collection and sources.

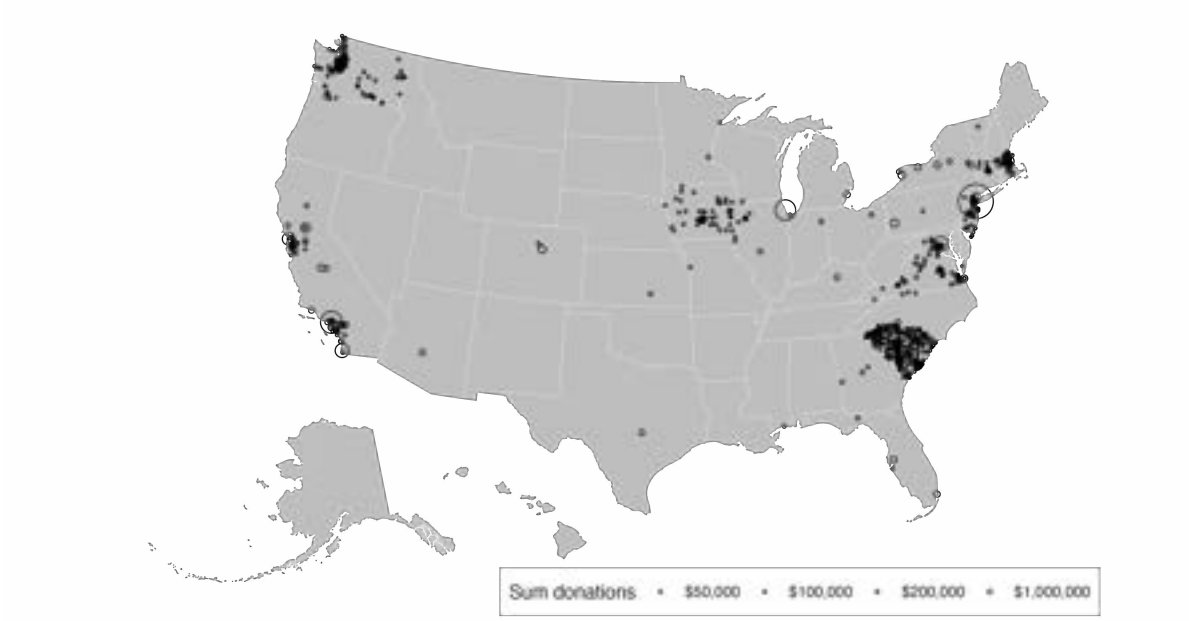


Figure 1: Map of cities included in our contributions dataset

We then coded the contributor type of every single contribution in the data set. Using an automated dictionary-based approach as well as hand-coding of all contributors in Washington, Virginia, and South Carolina, we identified whether a contribution came from any of a list of different interest groups that are active in local politics. Group classifications in those states included other interest groups such as public- and private-sector unions, advocacy groups, law firms, political action committees, and political parties. This coding enables us to make a more general contribution to the interest groups and local politics literature as it allows us to assess the (financial) political activity of numerous interest groups in city elections. Among these groups, we focus on real estate industry groups, which include real estate companies, property developers, property managers, and associations representing these types of firms.

From this larger dataset, we focus on the subset of contributions from real estate industry groups. For this subset, we and a team of undergraduate RAs gathered information on every recipient candidate that received a donation from these groups in the seven states and D.C. which had the best data coverage (CA, DC, FL, IL, NJ, SC, VA, and WA). We hand-coded the partisan affiliation and incumbency status of each candidate, the year and outcome of the election in which

each of these recipient candidates ran, as well as whether the election involved an incumbent seeking re-election or was an open race. We collect these data by matching donation recipients to existing election results data sets (de Benedictis-Kessner et al. 2023), online searches of candidate websites and newspapers, and official election records from county and state websites.

This real estate industry donations subset of our overall contributions data encompasses donations from 217 cities across these 8 states. In Table 2, we present descriptive statistics on our contributions data for all states in which we completed this hand-coding as well as the entire real estate industry contributions dataset.

Table 2: Descriptive statistics of real estate contributions data

State	# cities	Years	# election years	# donations	# candidates	Avg. donation ($)	Median donation ($)
California	39	1999-2022	24	6,481	519	$639	$500
Illinois	2	2011-2019	4	5,671	174	$1,053	$500
Washington	85	2009-2021	11	4,014	772	$517	$500
Virginia	35	2012-2024	13	3,246	316	$1,155	$750
District of Columbia	1	2006-2018	12	2,775	94	$747	$500
South Carolina	26	2007-2023	16	2,311	175	$664	$500
New Jersey	25	2009-2022	13	845	111	$758	$500
Florida	4	2012-2014	4	278	20	$444	$500
Total	217	1999-2024	27	25,621	2,181	$792	$500

3.2 Housing Policy Outcomes

In order to analyze the consequences of local political contributions in the hotly debated area of housing, we combine our contributions data with several different measures of housing policy outcomes. First, we use data on permitted housing units and buildings from the Census Bureau's annual Building Permits Survey. The Census Bureau's Manufacturing and Construction Division sends this survey to officials who manage the issuance of building permits in all permit-issuing jurisdictions who then return their responses via mail or an online survey, which the Census Bureau then compiles into yearly summaries of new construction in each permit-issuing jurisdiction.[7] These data encompass nearly all new residential construction each year by private entities between 1980 and 2024.

From these data, we focus specifically on the total numbers of buildings and units permitted

[7]These permit-issuing jurisdictions are primarily cities and towns, but also include some counties that perform some amount of permitting. We focus on the cities within these data. For more information on these data, consult U.S. Census Bureau (2011).

as well as the total numbers of single-family and multi-family buildings and units.[8] While the permitting of new housing – and different types of new housing – is far from the only possible outcome to measure local governments' influence on housing markets, it is a suitable one for several reasons. First, debate over new housing construction in cities typically focuses on the construction of new *multi-family* housing, especially in larger dense cities that have little space for new single-family homes within city limits. New multi-family housing is often more contentious than single-family construction (Einstein, Glick and Palmer 2019; Hankinson 2018). Second, we focus on multi-family housing because restricting it has historically been a tool of exclusion in U.S. cities – specifically, use of single-family zoning to restrict the construction of multi-family housing (Sahn 2025*b*; Trounstine 2018; Whittemore 2021). Finally, while there are within-city data on housing policy that may represent a more immediate outcome of government without reliance on the private market, these data are often not available in comparable formats across cities, while the Census Bureau data are in a standard format across years and geographies.

Over time, housing permits have fluctuated both due to overall trends in the housing market – such as the 2008 Great Recession and the subsequent nadir of housing permitting and construction across the country – and choices made by individual permit-issuing governments. Because of the highly discretionary process of housing permitting, there is a great deal of over-time fluctuation in permitting within each city. For instance, Seattle, Bellevue, and Redmond (in WA) all have followed distinct trajectories, with overall higher levels of multi-family development in Seattle, particularly following a large post-recession permitting rebound in 2010 and afterwards. In CA, the cities of San Jose, Hayward, and Pleasanton have all similarly varied in their permitting of multi-family housing over the past several decades: the highest levels of development occurred in San Jose, but large year-to-year fluctuations in some periods led to permitting more in line with the smaller cities of Hayward and Pleasanton. The drivers of this type of permitting variation within cities are exactly the focus of our primary analyses that follow.

In addition to these primary broad outcome data on housing permits, we also incorporate data

[8]The Census divides the permits data into single-family buildings (i.e. one-family detached homes), buildings with two units, buildings with three units, and buildings with four or more units. We group all buildings with two or more housing units as multi-family buildings for use in our analyses.

on both rent prices and housing sale prices. Our rent price data comes from the Census Bureau's American Community Survey (ACS). We use the median gross rent in each city from the 1-year estimates provided by the ACS from 2006-2023, adjusted for inflation to match values in 2022. Our housing price data comes from Zillow, which provides the Zillow Home Value Index (ZHVI) in each year that represents the typical seasonally-adjusted home value for homes in the 35th to 65th percentile in a given city and year.[9] Both of these measures represent outcomes that are not immediately proximal to local housing policy decisions but are still important policy-relevant measures of the health of the housing market in a given city.

Finally, we merge Bartik, Gupta and Milo's (2023) index of zoning restrictiveness into our data set. This index comes from a large scale data collection of municipal zoning ordinances collected in Fall 2023 from a variety of sources. The authors apply a large language model to these ordinances to code each government on different zoning-related policies, including permitted uses, bulk regulations, and the approval process.[10] The combination of their index with our data enables us to see how restrictive zoning regimes – which are typically accompanied by significantly higher levels of municipal discretion over new housing – moderate the relationship between real estate industry contributions and new housing permits.

4 Research Design

Using these combined contributions and outcome data, we conduct a number of analyses to examine the influence of financial contributions on housing policy outcomes using generalized difference-in-differences models. Given our focus on the causal effects of campaign contributions, we choose to focus on this research design to leverage within-city changes in the number and amount of political contributions and the outcome of those changes in the years that follow. A contrasting approach that we do not take might be to look at simple cross-sectional differences between outcomes in

[9]For more information on the ZHVI, see `https://www.zillow.com/research/zhvi-methodology-2019-deep-26226/`.

[10]The resulting data cover 5,803 local governments, and are skewed toward larger places, but were validated against a think tank's hand coding of Massachusetts municipalities and correlate 0.87 with expert coding on continuous variables within the index. We use their summary Overall Index – the sum of z-scores across all zoning questions – where higher values indicate more restrictive regulation. The index also correlates positively with the Wharton Residential Land Use Regulatory Index, another measure of zoning restrictiveness used previously by others (Gyourko, Saiz and Summers 2008; Gyourko, Hartley and Krimmel 2021).

those cities with higher levels of contributions and those cities with lower levels of contributions. Yet this approach would capture the effects of those contributions along with a large amount of potential confounding from other features of cities that are different between those with high levels of contributions and those with low levels. And it would be confounded by potential broader trends over time in either outcomes or contributions that affect many cities at once.

Therefore, our main models use a strategy of two-way fixed effects at the city and state-year levels.[11] This allows us to assess the effects of contributions netting out the effects of time-invariant city-level features or shocks to multiple cities within a given state in certain years. This approach relies on an assumption that there are no time-variant confounders in order to produce an estimate that represents the causal effect of contributions – an assumption which we validate in Appendix C, where we show no differential changes in our main outcome variable of housing permitting in the years preceding elections. All our models assess the effects of varying levels of contributions on changes in various outcomes between the election year for which the donations were made (year t) and the years that follow (one, two, three, four, five, and six years afterwards). Given the length of time some housing developments can take just to get permitted – where project permitting takes as much time in some cities as project completion does in others (D'Amico, Soltas and Wang 2026) – we use an expanded window so that we can properly capture possible effects.

5 Results

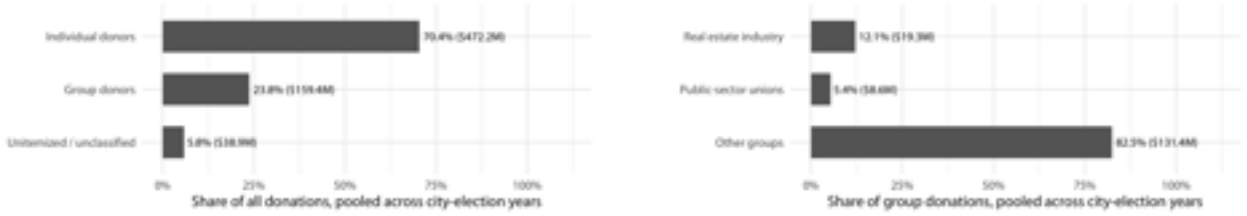
We present results that provide a comprehensive picture of real estate industry political giving and its policy consequences. First, we compare real estate industry donations to our broader contributions data. Next, we examine where real estate donors are most likely to give – that is, in what types of cities. Then, we show what kinds of candidates are supported by real estate industry groups across our dataset. Finally, we evaluate the impact of these donations on housing permitting.

We first investigate some general characteristics of local campaign contributions overall. In a typical election year in a city in our data, there is a median total of $28,928 donated to candidates running. This amount is larger in larger cities: for instance, in Los Angeles, CA (with a population

[11] We show results using alternative fixed effects specifications in Appendix B.

around 3.9 million), over $55 million was donated in the 2013 election cycle, while in cities like San Dimas, CA (population just under 35,000), only $2,748 was donated in the 2015 election cycle. Other mid-sized cities had more typical totals of contributions, such as Pleasanton, CA (population just under 80,000), in which $28,982 was donated in the 2013 election cycle. These figures align with the previous literature on campaign contributions in local politics (e.g. Adams 2010, 2011, 2018; Holbrook and Weinschenk 2014).

In Figure 2, we plot the total donations in our data by type (in the left panel) and among group donors (in the right panel). Most of our contributions data come from individuals rather than groups or private companies – 70.4% of the total dollar amount of contributions. Just over 23% of the sum of contributions come from groups and companies, while another 5.8% are not itemized or impossible for us to classify. Among the 23% of total donations that come from group donors, the real estate industry and public sector unions are two of the largest donor types, as the right panel shows. These donor types are accompanied by a number of other donations from groups: party committees, PACs, businesses like law firms, advocacy groups, trade associations, and private sector unions.



(a) All contributions (b) Group contributions

Figure 2: Local campaign contribution types

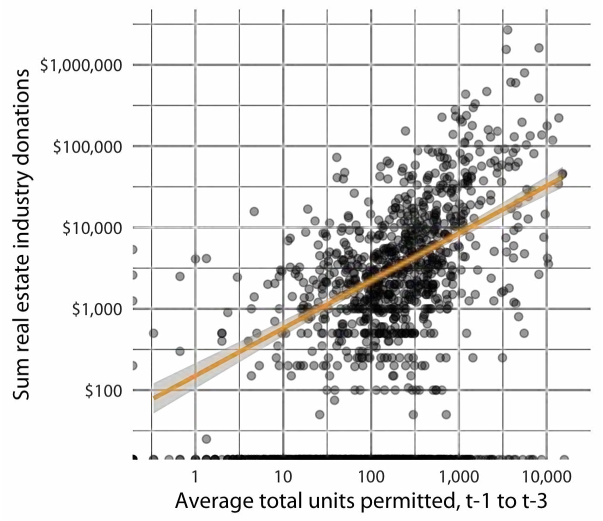
5.1 Descriptive Evidence on Cities Where Real Estate Industry Groups Donate

In a typical city-election, real estate industry contributions are modest. Nearly half (46%) of the city-elections in our overall contributions data feature no contributions from real estate industry donors at all, and the median city-election sees just $300 of contributions from this industry. Among elections where these donors are active, the median is about $3,000, spread across roughly

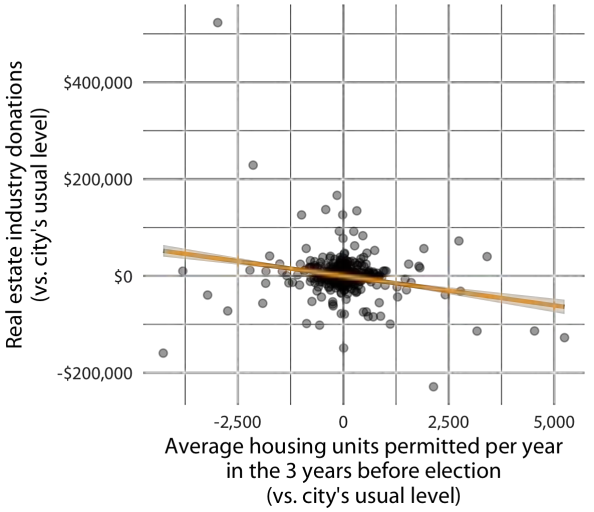
five contributions of around $500 each. A small number of large cities account for much larger sums: the top 10% of city-elections each receive more than $13,900 from real estate donors, and the largest receive several hundred thousand dollars.

Where do real estate industry donors focus their donations? We use Zillow's Home Value Index (ZHVI), median rents, and permit data to assess the market conditions in the cities where these groups contribute more. We first compare our outcome variables in cities with higher levels of real estate industry contributions to places with lower levels of these contributions. Then, to take into account how some cities differ drastically in their housing environments from other cities in our dataset, and how some years (such as those following the 2008-9 financial crisis) had drastically different market conditions than other years, we compare cities both relative to themselves over time and relative to other cities within the same state in a given year.

We examine whether cities that attract greater levels of real estate industry campaign spending differ in their housing permitting. Figure 3a plots the association between the number of units permitted in the years just prior to an election and levels of real estate industry donations. The strong positive slope indicates that this interest group contributes more in places that are permitting greater numbers of housing units. This follows from longstanding theories of interest group mobilization that suggest such activity happens where there is a larger potential benefit to an interest group's industry. In these places, government subsidies or favorable regulation may have a greater impact on the bottom line for members of an interest group (e.g. Denzau and Munger 1986; Fouirnaies and Hall 2014; Grier, Munger and Roberts 1994).



(a) Levels of building prior to election year and real estate industry contributions (no fixed effects).



(b) Levels of building prior to election year and real estate industry contributions relative to city and state-year averages.

Figure 3: Relationship between levels of home building prior to election year and sum of real estate industry contributions.

Are these cities with more donation activity actually building more housing than we would expect them to? We next adjust our comparison by accounting for average city and state-year levels of housing permitting, and therefore compare cities to more apt comparisons (other cities in their state in that year). These results are displayed in Figure 3b, which shows the total units permitted in a city pre-election after city and state-year averages have been removed. This plot shows that industry donors give a slightly greater amount of contributions in places that are permitting *less* housing relative to permits issued in the past in that city and to other cities in their state in the same year.

These two descriptive trends paint a portrait of the real estate industry as an interest group that prefers to donate to candidates running in *high overall development* cities that are nevertheless permitting *less* than the rest of the state in the years prior to an election. The real estate industry is more politically involved in places that have greater potential housing growth and in which they therefore have a stake in policy outcomes. However, they target their contributions to cities that are below-average in terms of new construction relative to similar places (and their own development in the past). Such places likely represent greater opportunity for more building – given the lower

recent permitting numbers – if local governance changes and more permits can be approved. For instance, in 2016 the city of Sacramento, CA, had an open-seat mayoral race on the ballot alongside four of the city's council district seats. In the three years prior to that election, the city permitted only 576 units per year on average. While this level of development is above the median number of units permitted in cities in our data, it was well below Sacramento's *own* usual level of development – roughly 1,900 units per year in the years preceding Sacramento's other election years in our data. Real estate industry donors gave $43,700 to candidates for mayor and city council in the 2016 election in Sacramento – more than ten times the contributions in a typical city-election in our data.

Additionally, we analyze housing market conditions in cities with real estate industry contributions. In Appendix D we analyze the typical housing prices and rents in cities where real estate industry donors contribute more. Appendix Figure A6 plots these descriptive patterns, which show that there is no apparent relationship between where real estate industry donors contribute more and either cities' home value index or their levels of median rent in the years prior to an election. This suggests that, contrary to popular media narratives, the real estate industry is not targeting their donations in places with the highest home values or rents where they can maximize what they charge.

5.2 Descriptive Evidence on What Kinds of Candidates Real Estate Industry Groups Support

The previous section showed that real estate industry contributions are concentrated in cities with below-average housing permitting relative to their regions but with higher overall levels of permitting relative to the larger set of cities across the country. But how do these groups target their spending within the places that they donate? Our data also enable us to examine the kinds of candidates that real estate industry donors are most likely to support in local elections.[12] By looking within cities at the characteristics of candidates who receive real estate industry contributions, we can better understand the motivations of this interest group's financial activity. Chiefly, we

[12]For these descriptive analyses, we omit observations from the states of Illinois and Florida given the low number of cities for which we have data in these states.

can attempt to adjudicate whether these donors are attempting to change the minds of incumbents through financial donations or change the composition of those in government by supporting pro-housing candidates in races for open seats.

In Figure A5, we display the percentage of money from real estate industry donors going to candidates who are affiliated with the Democratic party, the Republican party, and any other party. As might be expected given that larger cities are more likely to be more Democratic (Rodden 2018), nearly 75% of contributions in our overall real estate industry contributions data go to Democratic candidates. In California, 85% of candidates receiving contributions are Democrats. In South Carolina, where many of the cities for which we were able to gather data were larger, 65% of recipient candidates were Democrats – despite the state's more Republican-leaning population. In Washington, where our data cover all cities and therefore incorporate many smaller cities, candidates who receive real estate industry donations are more evenly divided in terms of partisan affiliation: about 56% are Democrats and 41% are Republicans. As should be no surprise, there are basically no contributions to Republicans in D.C., where the Republican party is not regularly competitive in local elections. The partisan make-up appears to reflect who holds power in the places real estate donors are giving rather than a strong preference for one party over the other. This makes sense from a strategic perspective – the real estate industry appears to target candidates from the party that more broadly does better in many local elections, especially in large cities (de Benedictis-Kessner et al. 2023; Warshaw 2019).

This result is notable given recent findings that electing officials from different parties leads to different local housing policy outcomes (de Benedictis-Kessner, Jones and Warshaw 2025): if electing more Democratic mayors can lead to increased multi-family housing production, donors from the real estate industry may rationally target their contributions to Democrats if they want more housing to be permitted.

Using our novel data, we can also examine donation patterns to elections for open seats versus re-election races. Here, an interesting trend emerges for real estate industry contributors: local candidates seeking re-election benefit from a substantial incumbency advantage (de Benedictis-Kessner 2018, 2026; Trounstine 2011) that can extend to a financial incumbency advantage (Adams

2010; Holbrook and Weinschenk 2014; Krebs 2001). Indeed, when an incumbent is running for re-election, they receive the bulk of donations from real estate industry donors, as illustrated in Figure 4. Approximately three quarters of donations are directed to incumbents across our entire dataset and across most states, with only a slightly lower financial incumbency advantage in donations in Washington, D.C and in WA. This focus on incumbents in re-election races by real estate industry donors could be interpreted as maintaining allies in government or, alternatively, keeping elected officials open to hearing from real estate donors should housing policy issues arise.

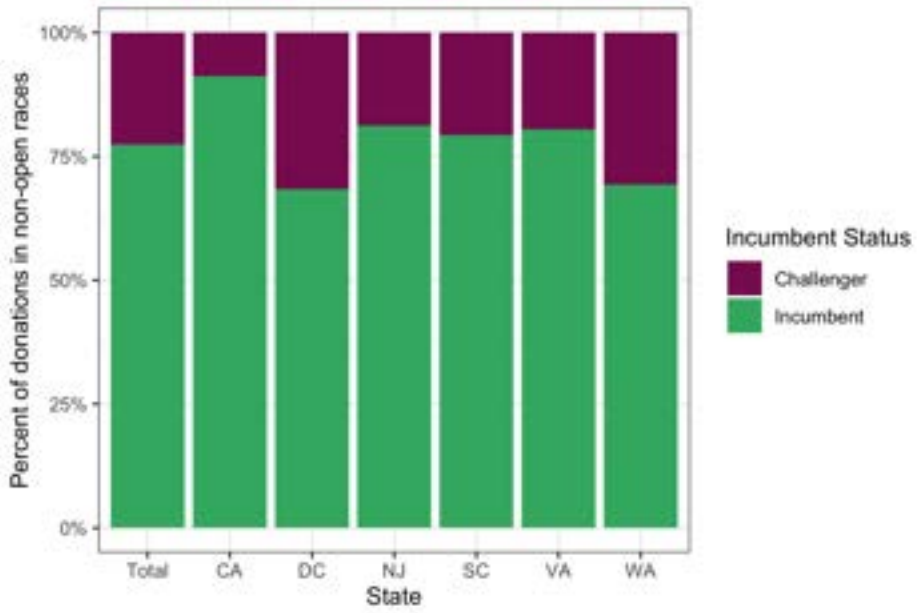
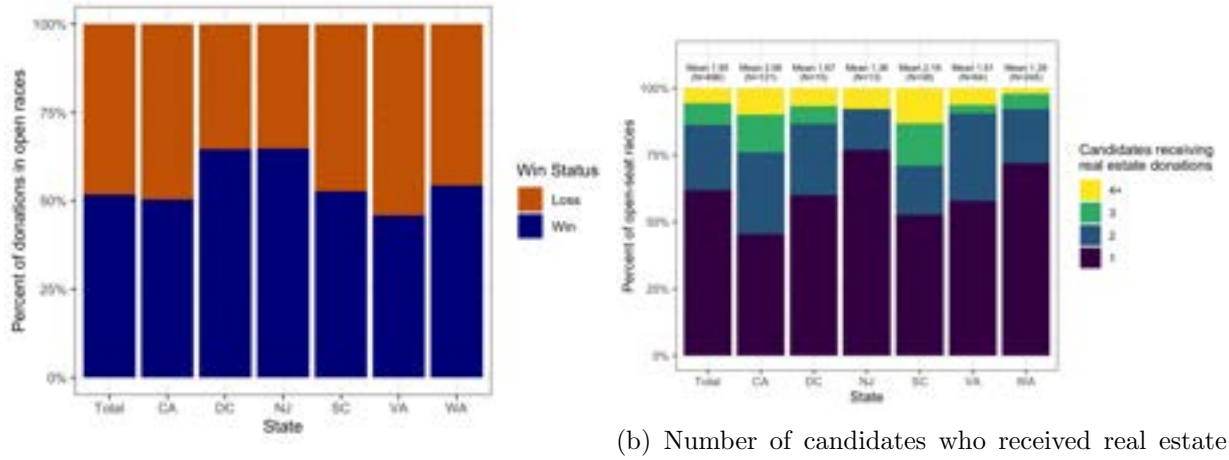


Figure 4: Real estate industry donations in re-election campaigns by state.

The motivations of real estate industry donors are more clearly expressed by the patterns of their donations in open seat races, as we show in Figure 5. Figure 5a shows that, in open seat races, roughly half of real estate industry donations go to candidates who win their election. This percentage is largely consistent across states, though in Washington, D.C., a slightly higher proportion of donations go to the winner.

To better understand how these donation patterns work within individual races rather than in the aggregate, we analyze the giving patterns of real estate interests within open-seat races. Figure 5b shows that in the majority of open-seat races, real estate industry groups donate to only one

candidate. However, in races where they donate ore than once, 40% of the time they donate to more than one candidate. The frequency with which donors give to multiple candidates within the same race suggests many real estate industry contributors are hedging their bets.



(a) Win vs. loss status of candidates who received real estate industry donations

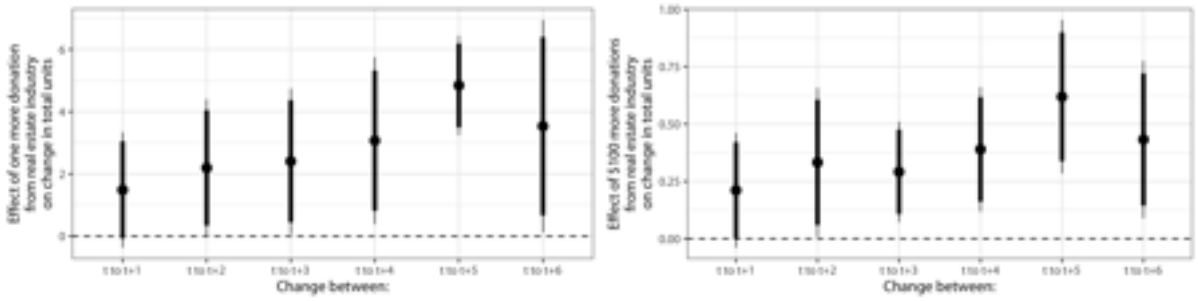
(b) Number of candidates who received real estate industry donations in races that featured at least two real estate industry contributions.

Figure 5: Characteristics of recipients and donations in open-seat races

5.3 The Causal Effects of Real Estate Industry Contributions on Housing Permitting

We next move to examining the causal effects of these contributions on housing outcomes. To do so, we use the panel fixed effects regression specifications described in Section 4. We separately assess whether larger numbers of donations from the real estate industry and whether greater amounts of contributions from the industry influence the number of housing units permitted in the years following an election. The results of these analyses are presented in Figure 6, which plots the effect of greater numbers of contributions (left panel) and higher amounts of contributions (right panel) on the change between the election year in which donations were made (year t) and the years that follow ($t+1$, $t+2$, $t+3$, $t+4$, $t+5$, and $t+6$) in the total number of housing units permitted. The two panels indicate strong and statistically significant effects of increased numbers and amounts of donations from the real estate industry on the total number of housing units permitted following the election year. These effects rise in their size from the year following the election to four and five years after the election. Tabular versions of these results looking at outcomes four years after

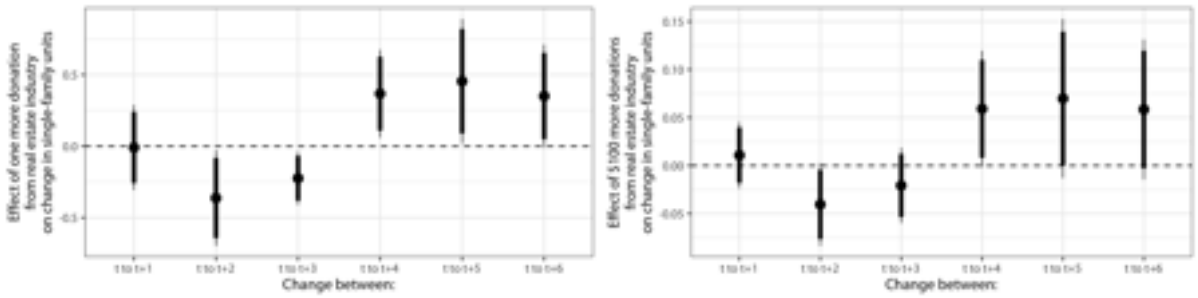
contributions were made are presented in Table 3.



(a) Number of donations (b) Sum of donations

Figure 6: Effects of donations on total units permitted

In the same graphical format, Figure 7 shows the effect of the number (in the left panel) of real estate industry donations and the sum dollar amount of industry donations (in the right panel) on the change in the number of single-family units permitted between the election year for which the donations were made (year t) and the following years. Both panels indicate that there are generally null or negative effects of increased numbers and amounts of donations on the permitting of single-family units early after an election until four years after the election, when the effects rise and are positive and statistically significant. Most single-family house construction is part of larger greenfield subdivisions that require lengthy planning, subdivision approval, and infrastructure construction, and the delayed increase in single-family homes is consistent with those timelines.



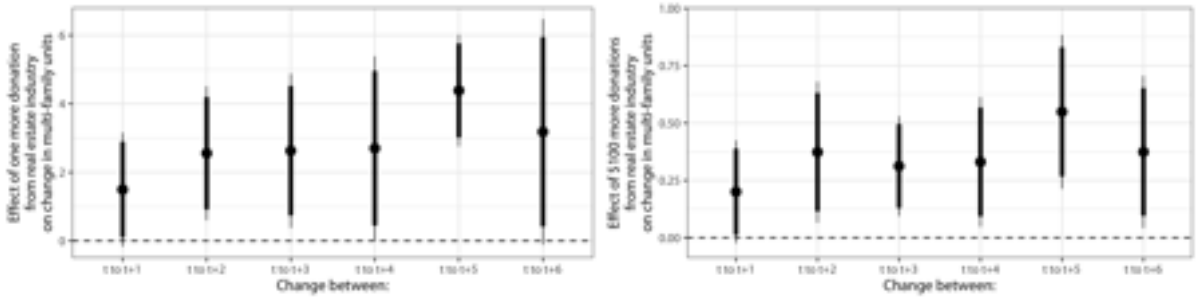
(a) Number of donations (b) Sum of donations

Figure 7: Effects of donations on single-family units permitted

Figure 8 shows similarly positive effects of the number of donations (left panel) and sum of

donations (right panel) on the permitting of multi-family housing units, but with little lag time. These results indicate that increased real estate donations appear to quickly lead to a sustained increase in the number of multi-family units permitted following an election. This timeline also makes sense; multi-family housing is less likely to require extensive infrastructure investment than a single-family subdivision, so permitting effects from an election can be expected more quickly.

When real estate industry donations increase, cities permit more multi-family housing units. The effect sizes are quite similar to the effects of contributions on the total number of housing units permitted, suggesting that the effect on total housing units is coming almost entirely from the permitting of multi-family housing. The effects imply that for every additional $100 contributed by real estate industry donors, there is approximately 0.2 to 0.55 additional units of multi-family housing permitted in the years after the election. Given that a typical (median) contribution from a real estate industry donor is approximately $500, our results suggest that a relatively ordinary amount of additional real estate industry money in an election – $1,000, or roughly two typical contributions – is associated with about three more multi-family housing units permitted per year in the third and fourth years following the election, and about six more units in the fifth year after an election.



(a) Number of donations (b) Sum of donations

Figure 8: Effects of donations on multi-family units permitted

Table 3 corroborates the visual results from the previous figures. Increases in real estate industry donations are accompanied by increases in the number of total buildings, total units, and multi-family buildings and units permitted four years later.[13]

[13]In Appendix B, we present the full series of tabular results for these analyses including alternative year timelines after the election for the dependent variable to match our main figures.

Table 3: Housing permits results

	Δ between election year and t+4 in:											
Dependent Variables:	Total buildings		Total units		Single-family buildings		Single-family units		Multi-family buildings		Multi-family units	
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	0.572***		3.069**		0.368**		0.368**		0.205***		2.702**	
	(0.155)		(1.370)		(0.157)		(0.157)		(0.035)		(1.371)	
Real estate industry donations ($100s)		0.089***		0.390***		0.059*		0.059*		0.030***		0.330**
		(0.031)		(0.138)		(0.031)		(0.031)		(0.006)		(0.144)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391
R^2	0.582	0.582	0.580	0.576	0.554	0.554	0.554	0.554	0.610	0.608	0.557	0.553
Within R^2	0.016	0.017	0.030	0.021	0.007	0.008	0.007	0.008	0.066	0.060	0.027	0.017

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Our data allow us a partial empirical test of the three potential theories behind interest group influence that guided our expectations. First, we examine whether our effects occur after elections where the incumbent is running for re-election and whether they occur in open-seat elections. The former would suggest that groups donate either to provide information or to persuade sitting politicians. Effects of contributions in open-seat races, on the other hand, would be more consistent with the theory of influence via changing the composition of government. These results, presented in Appendix E, show that the effects of contributions on permitting are driven both by donations in open-seat mayoral elections and those where the incumbent is running. Real estate industry groups are effective in both settings, most likely accomplishing their policy influence via *access* rather than persuasion or replacement. In line with this, in Appendix F, we examine whether the effects of contributions occur in open-seat races when these groups donate to the eventual winners alone, or when they donate to both winners and losers. We show that the effects of contributions are similar when made to either type of candidate in these open-seat races. Together, these results support the theory that real estate industry groups seek to change policy through buying access to elected officials, rather than by replacing sitting politicians or backing only allies in open races.

We conduct a variety of robustness tests to examine whether these results are artifacts of our modeling choices or different subsets of data. In Appendix B, we present results from models employing city and year fixed effects, rather than our more stringent specification using city and state-year fixed effects. These results are largely the same as those presented in the main text above.

We also present analyses of different subsets of our data in Appendix G, where we separately analyze each of the six largest individual states for which we have data on real estate industry contributions (CA, SC, VA, WA, IA, and NJ). These results suggest that our main results for the impact of contributions on multi-family housing appear in CA and WA, but in SC we see effects only on the permitting of single-family housing. This makes sense considering the constraints on new developments in California and Washington compared to South Carolina; there is likely more space for single-family housing in high-demand South Carolina metropolitan areas than in California or Washington. We also conduct a variety of jackknife tests in which we leave one state out of our analyses and replicate our main model specifications; results are largely the same.

Additionally, we examine heterogeneity in our results by looking at several theoretically driven subsets of our data. In Appendix H, we assess whether elections from any particular time period are driving the main results we observe. We find that our empirical results appear to be similar in both the 2010s and the 2000s. However, our estimates from the 2000s are much noisier than those from the 2010s, which may be leading to this heterogeneity. We also analyze whether contributions to mayoral candidates or city council candidates are driving the main results we observe. These results are presented in Appendix I, and indicate that there are similar effects of contributions to both types of candidates. In Appendix J we also assess whether our results are driven by effects among cities governed by leaders of one party or the other (i.e., when a Democrat is mayor vs. when a Republican is mayor) and find no evidence of differential effects. We also examine whether different housing market conditions may lead to different levels of influence for real estate industry contributions: in Appendix K we analyze whether our effects are stronger in places with higher pre-election housing price growth. Using data from the ZHVI to measure changes in annual average prices at the city level, we assess whether these effects differ in city-years with below-median and above-median price growth in the three years prior to the election. Our results from these analyses indicate that the effects of contributions are strongest on the number of multi-family units permitted post-election in city-years with lower price growth prior to the election, though this may be confounded by time period effects.

5.4 The Role of Zoning Regulations

We next bring in new data on restrictive zoning regulations from municipalities across the U.S. to assess how this critical regulatory regime affects the influence of the real estate industry on housing outcomes. To do so, we harness the index of zoning restrictiveness from Bartik, Gupta and Milo (2023).

We plot this summary index across all the cities in our data in Figure 9. Each point on the map corresponds to a city while the color of that point corresponds to that city's quintile of zoning restrictiveness on the index. More restrictive places are concentrated in the Northeast and parts of coastal California, as indicated by the concentrations of turquoise points in those areas.

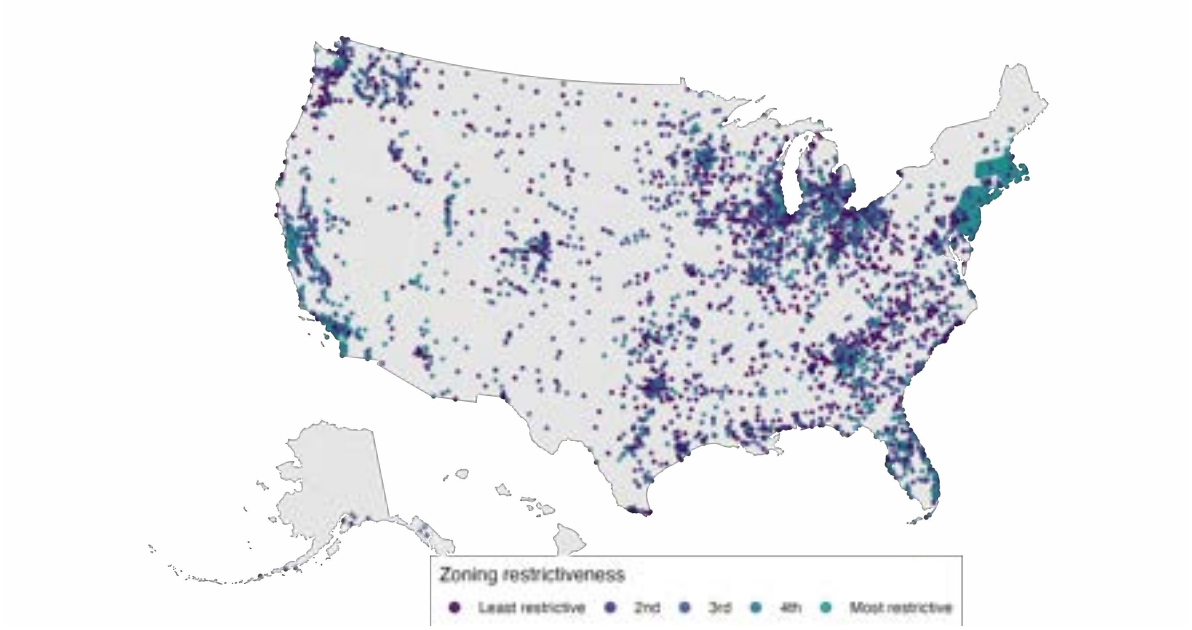


Figure 9: Map of zoning restrictiveness in cities

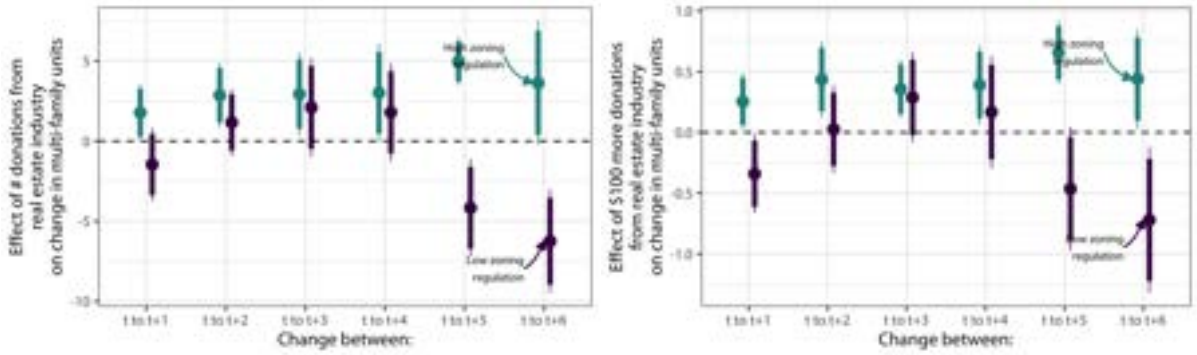
The cities with greater degrees of land use restrictions also attract more interest group activity from the housing industry. In those places with zoning restrictiveness in the top quintile, real estate industry groups donated an average of $19,843 in real estate money per city-year versus $2,059 in cities in the lowest quintile of restrictiveness.

We next use this index to examine whether zoning regulations moderate the effects of contributions on housing policy. We treat the values of each city's zoning restrictiveness index as a fixed city

characteristic and split the sample at the median of the overall index to conduct similar analyses as those in the previous section among subsets of our data.[14] Above-median cities range from an index value just above the median of -0.92 to 14.3 (which includes cities such as Sacramento, CA, Virginia Beach, VA, and Redmond, WA), while below-median cities range from below the median to -13.1 (which includes cities such as Santa Rosa, CA, Hampton, VA, and Everett, WA).

The results from these subset analyses are displayed in Figure 10, which shows the effects of real estate industry contributions on the change in multi-family housing units in the years following the election, among both cities with higher zoning restrictiveness (turquoise points) and lower zoning restrictiveness (purple points). Tabular versions of these results are shown in Appendix L. These results indicate that the increases in housing permitting that we observe are most concentrated in places with more stringent zoning regulations.

Given that cities with more restrictive zoning regulations are also larger cities, we separately analyze these subsets within smaller and larger cities to see if the zoning moderation is actually being driven by city size. These results, shown in Appendix Figure A29, indicate that higher levels of zoning restrictiveness correspond with larger effects on housing permitting even within subsets of cities when split by the median population and among the subset of larger cities over 100,000 in population (Appendix Figure A30). The restrictiveness of zoning itself appears to moderate the effects of real estate contributions, not just city size.



(a) Number of donations (b) Sum of donations

Figure 10: Effects of donations on multi-family units permitted by zoning regulatory stringency

[14]The index merges to 240 of the 298 cities in our sample (6,257 of 7,771 city-years), and the median split yields 120 cities on each side.

6 Discussion and Conclusion

This manuscript represents our efforts to understand the political economy of real estate industry political donors. Specifically, we seek to understand (1) to which kinds of candidates real estate industry donors contribute, (2) in which kinds of market conditions such donors are most likely to contribute, and (3) whether contributions in municipal elections impact policy outcomes and what types of institutional conditions explain the apparent impact of their donations. We find that this industry appears to exert powerful influence in local politics through financial contributions.

Overall, our analyses suggest that real estate industry-affiliated contributors act as policy entrepreneurs, supporting candidates with their preferred policy positions and cultivating relationships with policymakers so that when policies change, they can have a voice in the process. How do these industry groups make decisions about where to spend their money in local politics? Our data suggest that they donate to one or more candidates in cities that have an active housing development market, but where there may be relatively lower current permitting of housing. These groups donate more to incumbent candidates when they run, rather than challengers. But in open-seat races, they also spend large amounts of money – and in fact, on average they spend more than in races with incumbents running. This supports the theory of interest group political influence focused on access. They *both* support new candidates who may win election and who are supportive of their priority policy areas, and also support existing office-holders who hold power. Through both channels – either maintaining a relationship with a likely incumbent winner or supporting potential winners in open-seat races – this industry maintains access to office-holders and thereby influences housing permitting.[15]

Not only are these groups active in the financial side of local elections but their funds appear to have significant effects on the permitting of multi-family housing. Greater numbers of contributions and increased contribution amounts from real estate donors are both significantly related to increases in permitted multi-family units in the years that follow, and these results appear to

[15] Anecdotal evidence based on conversations with pro-housing interest groups similarly suggests that they are most concerned with winnable races where they can support a candidate who is likely to back preferred pro-housing policies (e.g. streamlined permitting processes, multi-family zoning, etc.). As one lobbyist for builders stated, "we don't do hero races," explaining that the group wanted to be involved in races where they could make a difference while also supporting candidates that have a good chance of winning and are supportive of preferred policies.

persist and grow. The average effect of an additional donation from the real estate industry results in permits for roughly three more multi-family units issued. An additional $500 spent by real estate industry donors – the size of the median contribution from these groups – is associated with just over two more units of multi-family housing being permitted. This effect is large relative to the number of multi-family units permitted in a typical (median) city-year in our data, 24 units. Yet this median is heavily weighted by the many small cities in our data, and the effects we observe are concentrated in large cities where annual multi-family permitting typically runs in the thousands of units. Our effects translate to only about 2% of median annual multi-family permitting (approximately 108 units) in cities that are above the median of housing stock (at least 11,358 existing units).[16] Our analyses also corroborate what survey evidence of policymakers from Anzia (2022) suggests: real estate developers are major sources of influence in local politics.

At the same time, the influence of campaign contributions on housing permitting (a direct policy outcome) appears not to translate into downstream housing market outcomes. In Appendix N, we assess whether increases in contributions affect rent and housing prices in the years following elections. Increased levels of contributions do not seem to be followed by changes in these market outcomes, at least on the timeline that we assess (up to 6 years post-election). Perhaps contributions do not affect these downstream outcomes or the timeline on which they might do so is longer than the timeline of outcomes that we can observe. In addition, while our results show that contributions lead to more permitting, if housing supply in a city is much lower than housing demand, even greater levels of development might be necessary to meaningfully impact rent and housing prices.

However, our results should be interpreted with caution. Though our placebo tests are consistent with the identifying assumptions for our research design, real estate industry contributions may not necessarily be *causing* changes in housing policy. Our descriptive findings show that cities with higher contributions are in temporary depressions of development (relative to other years in the same cities). The observed impact of increased real estate industry donations on increased housing permitting might therefore be capturing confounding by other features of a city that change

[16] Relative to the existing housing stock in large cities, where most donations occur, our effects are also small: each additional donation corresponds to roughly 0.6 additional multi-family units per 100,000 existing units, as we show in Appendix M.

at the same time as these donations increase – such as increased advocacy in response to the pent-up demand for multi-family housing in supply-constricted locations. Ruling out this specific confounder might be possible with geographically broad data on political campaigns by housing advocacy groups over time, yet such data does not exist to our knowledge. Though our placebo tests for time-varying confounders are reassuring, affirmatively proving that any of these types of features of elections and the political environment do not play a role would be econometrically impossible.

It is tempting to extrapolate these findings from the housing and real estate development industry to other policy areas. For instance, other research suggests that police unions may influence local policy outcomes as well (Carreri, Teso and Yu 2026). However, housing is an area of local politics that generates some of the most intense debate among policymakers and residents (Einstein, Glick and Palmer 2019), may be subject to less ideological disagreement (Hankinson 2018, cf. de Benedictis-Kessner, Jones and Warshaw 2025; Ternullo 2026), and has a high level of interest group activity (Anzia 2019*a*, 2022). This suggests that the dynamics of housing policy may be more susceptible to the influence of interest group financial contributions. To explore this possibility directly, in Appendix O we examine the effects of police union, firefighter union, and overall public employee union contributions on both overall and occupation-specific pay and number of employees. We find little evidence that the patterns we document for housing policy extend to these other policy areas. Policy in other areas of local government may instead be influenced by other forms of activity, such as endorsements (Gaudette 2025).

The influence of money in politics is frequently derided as allowing for leaders to prioritize the policy preferences of the wealthy (e.g. Gilens 2012). Yet in a policy area where democratic representation is often blocked by an unrepresentative participatory political process (Einstein, Glick and Palmer 2019; Sahn 2025*a*), this type of political activity – commonly assumed to be in opposition to the majority's interest in many other policy areas – may actually align with the preferences of the less moneyed, less politically active group: renters. In this instance, money in local politics could help facilitate, rather than hinder, full democratic representation.

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Supplementary Appendix for "Regulating the Growth Machine: Campaign Contributions, Zoning Environments, and Housing Supply in U.S. Cities"

A Local Donation Data Collection **A-1**

B Results from Alternative Model Specifications **A-2**

C DID Placebo tests **A-5**

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A Local Donation Data Collection

Iowa, Washington, South Carolina, and Virginia data were downloaded from the Iowa Ethics and Campaign Disclosure Board, Washington State Public Disclosure Commission, the South Carolina State Ethics Commission, and the Virginia Department of Elections. Each state requires contributions to candidates in local elections to be reported to the respective commissions/offices and then posts the data online. In the case of Iowa and Washington, the threshold for reporting is $25, and in the case of South Carolina and Virginia, the threshold is $100.

The states also classify whether the contributor is an individual or group. These classifications were reviewed for accuracy, then group contributions were split off from individual contributions. All group contributions for each state were then reviewed and hand-coded by contributor type and subtype except for Iowa; there, an LLM was trained on the existing data and its classification was hand-reviewed.

For most California cities, contributions data were gathered from the API for the common data vendor (NetFile) used by a large number of cities and towns. This API both serves as a back-end database for public data portals that these cities host, as well as a resource for gathering broader data across cities. The state of California mandates certain data fields be recorded and reported by campaigns to cities.

Our data from other cities across the country was gathered in a more targeted fashion by searching for data on the largest cities in the U.S., beginning with the highest population cities and working downwards.

Once combined, a team of undergraduate research assistants hand-coded candidate partisan affiliation, incumbency status, and the electoral outcomes for all recipients of developer contributions. This information was found using internet research and existing electoral result data bases.

B Results from Alternative Model Specifications

In the tables below, we show that our primary results are robust to alternative specifications. In Table A4, we show that our results are similar to those in the main text using city and state-year fixed effects when we use only city and year fixed effects.

Table A1: Alternative models: Housing results for $t + 1$ with city and year fixed effects

	Δ between election year and t+1 in:											
Dependent Variables:	Total buildings		Total units		Single-family buildings		Single-family units		Multi-family buildings		Multi-family units	
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	0.153**		2.274***		0.080		0.080		0.074***		2.194***	
	(0.076)		(0.364)		(0.064)		(0.064)		(0.025)		(0.322)	
Real estate industry donations ($100s)		0.016**		0.230***		0.009**		0.009**		0.006**		0.221***
		(0.007)		(0.040)		(0.005)		(0.005)		(0.003)		(0.036)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503	1,503
R^2	0.251	0.251	0.267	0.260	0.238	0.238	0.238	0.238	0.301	0.285	0.259	0.250
Within R^2	0.008	0.008	0.085	0.076	0.002	0.003	0.002	0.003	0.065	0.043	0.090	0.080

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A2: Alternative models: Housing results for $t + 2$ with city and year fixed effects

	Δ between election year and t+2 in:											
Dependent Variables:	Total buildings		Total units		Single-family buildings		Single-family units		Multi-family buildings		Multi-family units	
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	-0.017		2.012***		-0.094		-0.094		0.077***		2.105***	
	(0.115)		(0.683)		(0.120)		(0.120)		(0.019)		(0.742)	
Real estate industry donations ($100s)		0.004		0.190***		-0.003		-0.003		0.007***		0.193**
		(0.007)		(0.069)		(0.009)		(0.009)		(0.002)		(0.076)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	1,484	1,484	1,484	1,484	1,484	1,484	1,484	1,484	1,484	1,484	1,484	1,484
R^2	0.311	0.311	0.259	0.252	0.288	0.287	0.288	0.287	0.292	0.286	0.217	0.205
Within R^2	0.000	0.000	0.042	0.032	0.002	0.000	0.002	0.000	0.036	0.028	0.051	0.038

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A3: Alternative models: Housing results for $t + 3$ with city and year fixed effects

	Δ between election year and t+3 in:											
Dependent Variables:	Total buildings		Total units		Single-family buildings		Single-family units		Multi-family buildings		Multi-family units	
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	0.019		2.680***		-0.112		-0.112		0.131***		2.792***	
	(0.175)		(0.492)		(0.180)		(0.180)		(0.014)		(0.426)	
Real estate industry donations ($100s)		0.009		0.232***		-0.003		-0.003		0.012***		0.236***
		(0.012)		(0.023)		(0.014)		(0.014)		(0.002)		(0.029)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438	1,438
R^2	0.369	0.370	0.345	0.331	0.331	0.330	0.331	0.330	0.413	0.402	0.304	0.283
Within R^2	0.000	0.001	0.059	0.039	0.002	0.000	0.002	0.000	0.082	0.065	0.074	0.046

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A4: Alternative models: Housing results for $t + 4$ with city and year fixed effects

	Δ between election year and t+4 in:											
Dependent Variables:	Total buildings		Total units		Single-family buildings		Single-family units		Multi-family buildings		Multi-family units	
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	0.154***		2.414***		0.038		0.038		0.116***		2.375***	
	(0.055)		(0.500)		(0.048)		(0.048)		(0.024)		(0.495)	
Real estate industry donations ($100s)		0.014**		0.208***		0.004		0.004		0.010***		0.205***
		(0.007)		(0.020)		(0.005)		(0.005)		(0.003)		(0.021)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391
R^2	0.364	0.364	0.382	0.373	0.324	0.324	0.324	0.324	0.428	0.420	0.348	0.337
Within R^2	0.002	0.002	0.039	0.026	0.000	0.000	0.000	0.000	0.046	0.031	0.044	0.029

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A5: Alternative models: Housing results for $t + 5$ with city and year fixed effects

	Δ between election year and t+5 in:											
Dependent Variables:	Total buildings		Total units		Single-family buildings		Single-family units		Multi-family buildings		Multi-family units	
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	0.114		2.479**		0.003		0.003		0.111**		2.475**	
	(0.081)		(0.981)		(0.067)		(0.067)		(0.056)		(0.984)	
Real estate industry donations ($100s)		0.007		0.148		-0.001		-0.001		0.008		0.149
		(0.011)		(0.115)		(0.008)		(0.008)		(0.006)		(0.112)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241
R^2	0.404	0.404	0.365	0.349	0.381	0.381	0.381	0.381	0.486	0.473	0.349	0.329
Within R^2	0.001	0.000	0.035	0.011	0.000	0.000	0.000	0.000	0.040	0.017	0.044	0.014

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A6: Alternative models: Housing results for $t + 6$ with city and year fixed effects

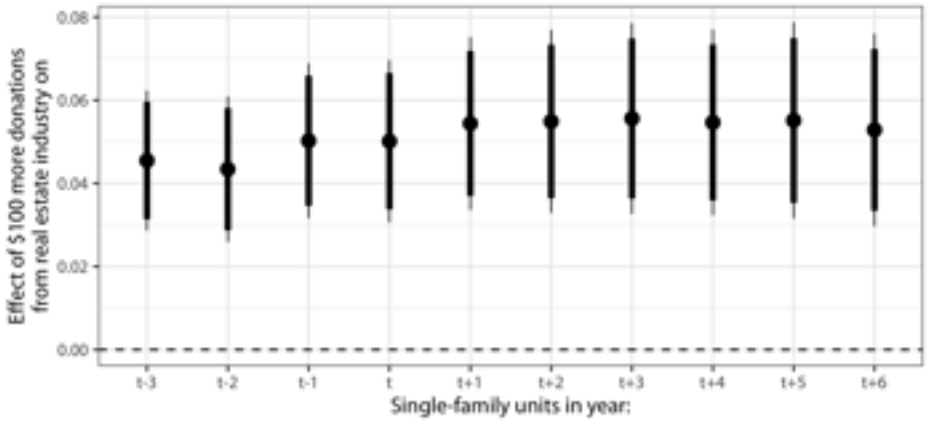
	Δ between election year and t+6 in:											
Dependent Variables:	Total buildings		Total units		Single-family buildings		Single-family units		Multi-family buildings		Multi-family units	
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	0.125		2.606***		-0.002		-0.002		0.128***		2.609***	
	(0.081)		(0.574)		(0.089)		(0.089)		(0.030)		(0.531)	
Real estate industry donations ($100s)		0.013**		0.212***		0.003		0.003		0.010***		0.210***
		(0.006)		(0.029)		(0.006)		(0.006)		(0.004)		(0.029)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167
R^2	0.414	0.414	0.330	0.321	0.404	0.404	0.404	0.404	0.468	0.457	0.315	0.303
Within R^2	0.001	0.001	0.033	0.020	0.000	0.000	0.000	0.000	0.044	0.025	0.041	0.024

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

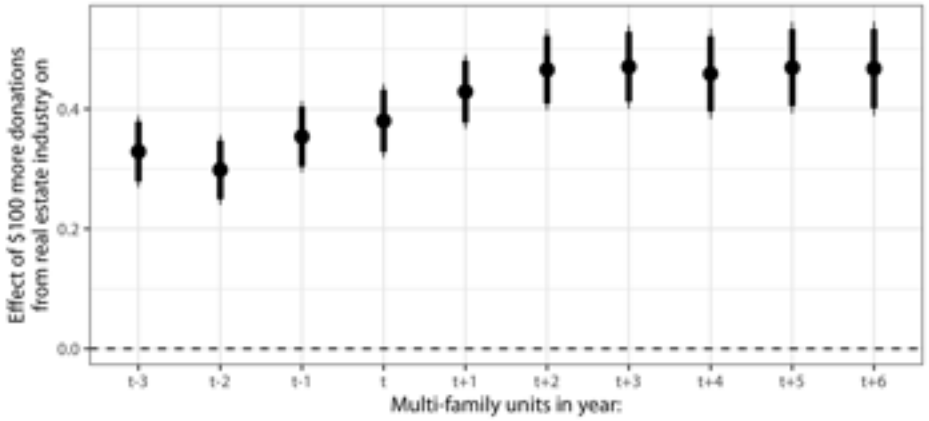
C DID Placebo tests

In this section, we present placebo tests in an attempt to validate the assumption that there are not time-varying confounders in our interpretation of our estimates – colloquially known as the parallel trends assumption.

First, we assess raw differences between places where local candidates receive more real estate industry donations vs. places where they receive less, much as our descriptive analyses in Figure 3 did, but using a regression framework. To do so, we regress raw counts of units permitted in each year from three years before to six years after an election on real estate industry contributions in that election without any fixed effects. These cross-sectional differences, displayed in Figure A1, are clear: in cities where local political candidates receive more real estate industry contributions, more single-family and multi-family housing units are permitted in every year, before and after the election. In other words, real estate groups contribute in places where housing development is occurring. Our main specification absorbs these persistent differences with city fixed effects.



(a) Sum of donations and single-family units



(b) Sum of donations and multi-family units

Figure A1: Differences in single- and multi-family units permitted between places with greater vs. less real estate industry contributions (models without fixed effects)

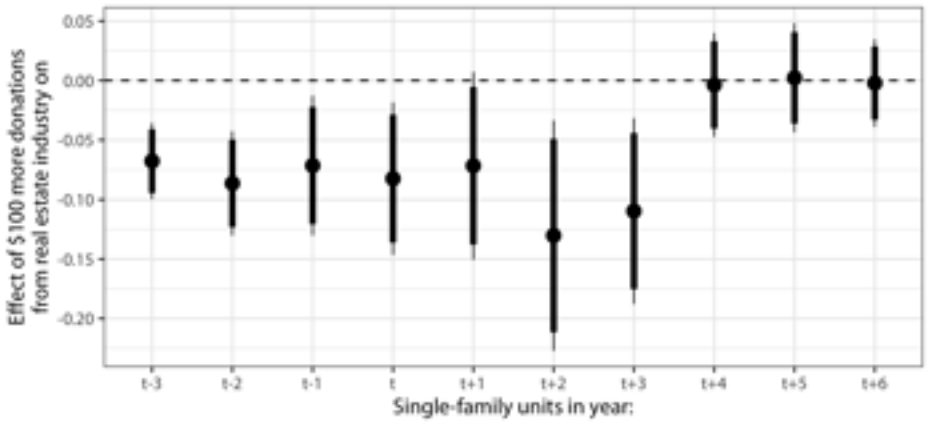
Of course, these cross-sectional differences do not necessarily indicate a problem for the inter-

pretation of our results given that our econometric specification incorporates fixed effects to absorb some of these cross-sectional differences across cities. Next, in Figure A2, we estimate the same models of permitting levels but including city and state-year fixed effects, mirroring our main regression specification. Each coefficient now compares permitting in a given year to the same city's typical level, net of shocks common to cities in the same state and year. Two patterns stand out. First, the coefficients for the years before the election and the election year itself are similar to one another: for both single-family and multi-family units, between $t-3$ and t the coefficients range from -0.38 to -0.25 (for multi-family) or -0.09 to

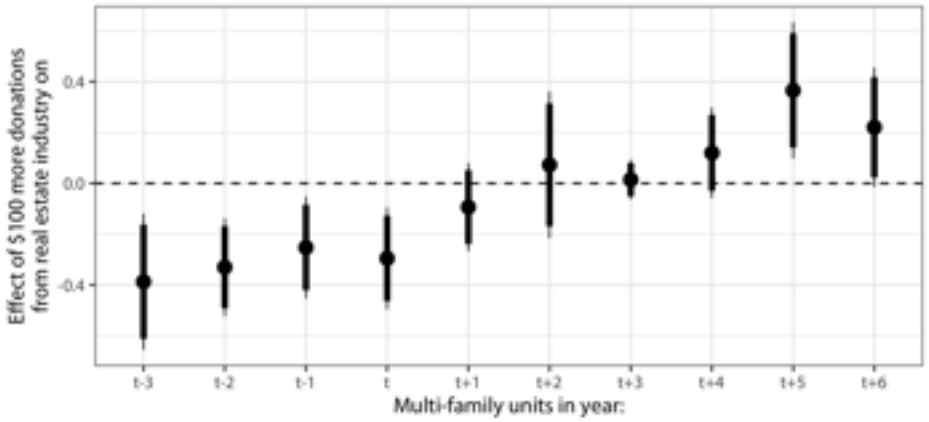
$$-0.07$$

(for single-family) per \$100 donated by real estate industry groups, with no dip in the years just before the election. Second, the coefficients rise only after the election. This flat pre-election pattern is what the parallel trends assumption requires. The pre-election coefficients are negative for primarily mechanical reasons: because city fixed effects compare each year to the city's average across all of its elections, a post-election increase in permitting implies that the pre-election years fall below that average. Levels models therefore cannot by themselves distinguish an effect of donations from selection on pre-existing conditions, so we turn to changes.

These results indicate that places with greater and lesser industry-affiliated contributions are different from one another, but this does not necessarily indicate a violation of the assumption that there are no *time-varying* confounders. To assess pre-trends directly, Figure A3 and A4 present event-study estimates from our main specifications. Each point in Figure A3 is the effect of an additional real estate industry donation, while each point in Figure A4 is the effect of \$100 more in real estate industry contributions on the change in units permitted between the election year (t) and the year shown, with city and state-year fixed effects. Points after the election are our main estimates, while points before the election are placebo estimates. In all analyses, we regress the change in permitted units between each pre-election year and the election year on contributions in that election. If real estate groups gave more in cities where permitting was already rising, these pre-election estimates would be negative. Instead, we find null effects in the years prior to elections. For both single-family units and multi-family units, the pre-election estimates are small and statistically indistinguishable from zero. And our main post-election estimates are positive and grow from $t+1$ to $t+5$.

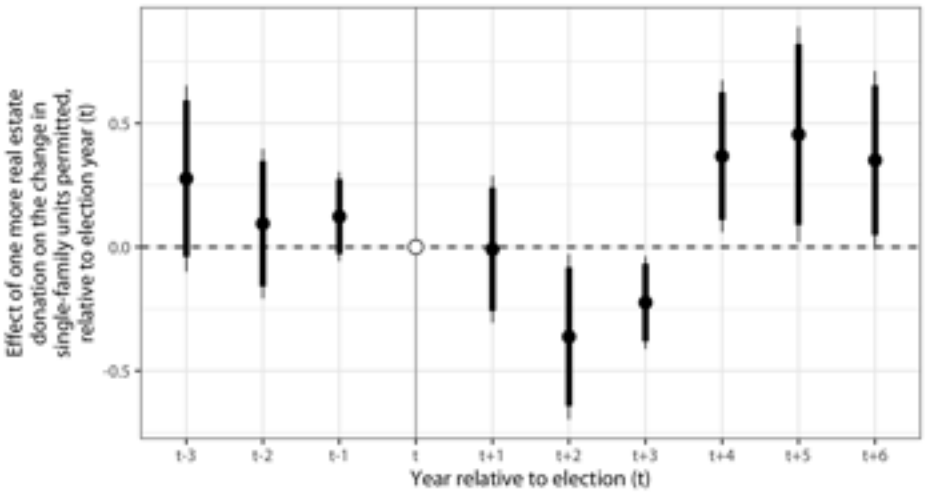


(a) Sum of donations and single-family units (levels)

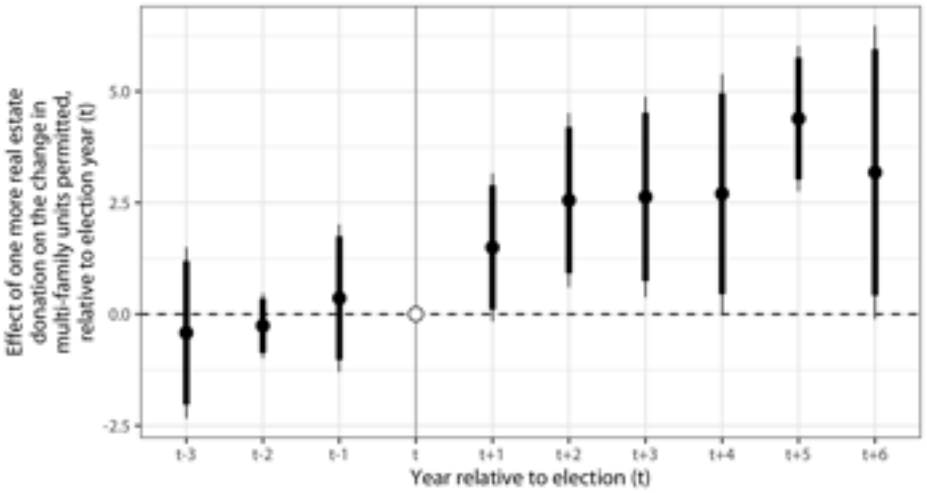


(b) Sum of donations and multi-family units (levels)

Figure A2: Donations and levels of single- and multi-family units permitted, relative to each city's typical level (models with fixed effects for city and state-year)

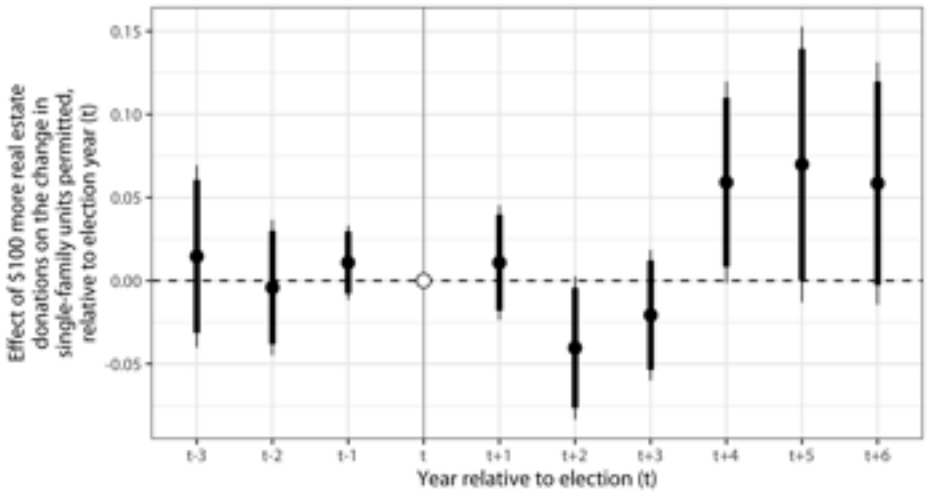


(a) Single-family units

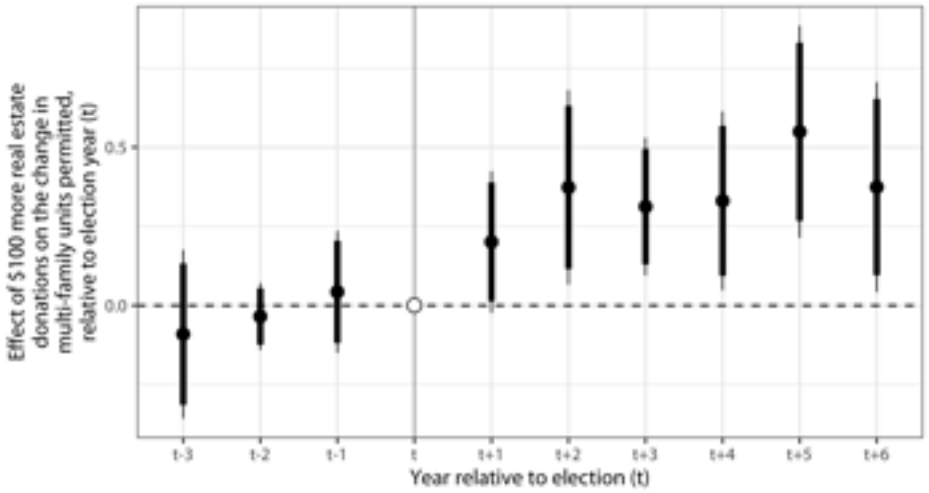


(b) Multi-family units

Figure A3: Event-study estimates: effect of an additional real estate industry donation on the change in units permitted relative to the election year (models with fixed effects for city and state-year). Pre-election points are placebo tests.



(a) Single-family units



(b) Multi-family units

Figure A4: Event-study estimates: effect of $100 more in real estate industry donations on the change in units permitted relative to the election year (models with fixed effects for city and state-year). Pre-election points are placebo tests.

D Descriptive Evidence on Real Estate Industry Donations

Figure A5 displays the percentage of candidates affiliated with each party who received real estate industry donations. The horizontal axis displays the state in which the candidate sought office and the vertical axis displays the percent of donations received by candidates affiliated with each party.

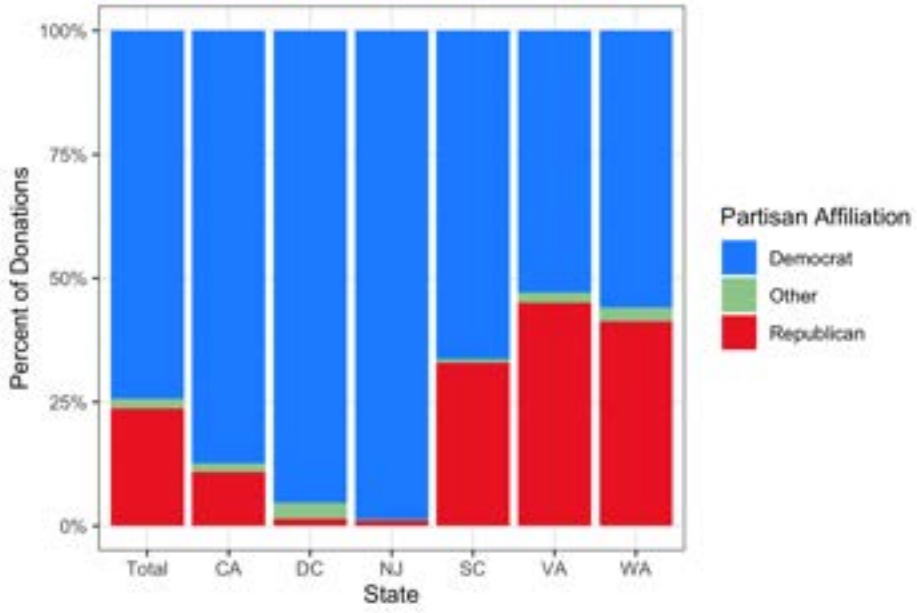
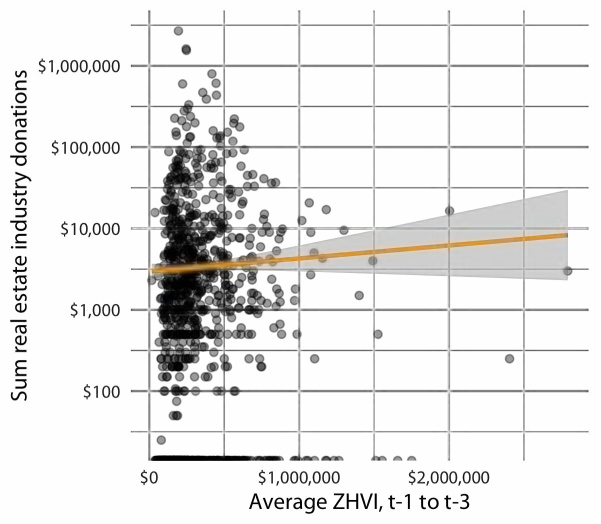
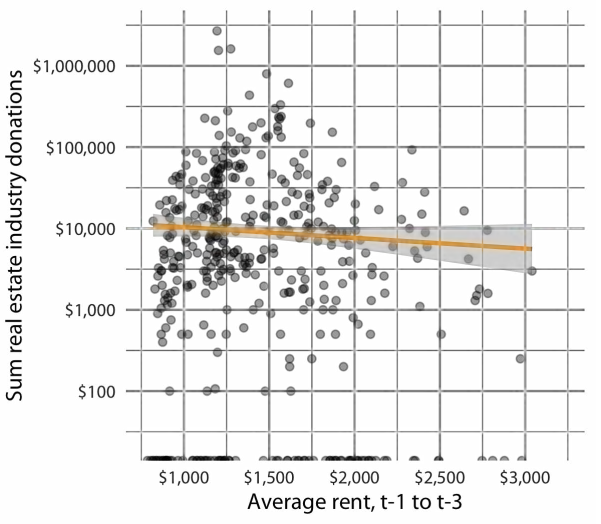


Figure A5: Partisan affiliation of candidates who received real estate industry donations by state.

Figure A6 plots the basic relationship between higher levels of real estate industry contributions and home values (panel a) and rent (panel b). The horizontal axis in each panel shows the two housing market outcomes in the three years prior to an election, and the vertical axis shows the sum of real estate industry contributions on a log scale in that election year. The relatively flat slopes of the regression lines in each panel show the lack of an apparent relationship between where real estate industry donors contribute more and either cities' home value index or their levels of median rent in the years prior to an election. This suggests that, contrary to popular media narratives, the real estate industry is not targeting their donations in places with the highest home values or rents where they can maximize what they charge.



(a) Real estate industry contributions and Zillow Home Value Index prior to election year.



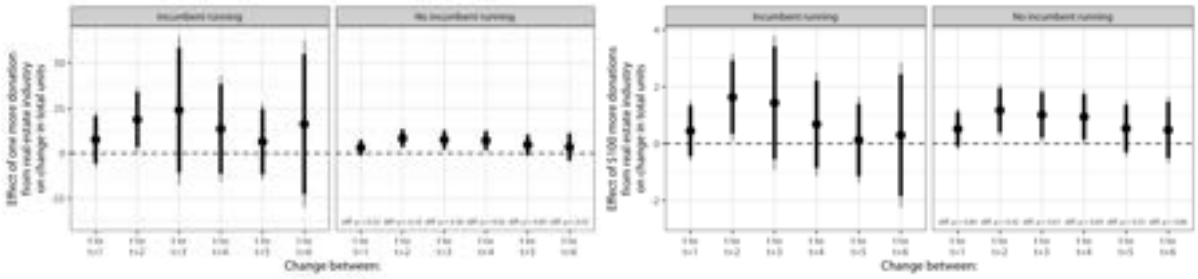
(b) Real estate industry contributions and median rent prior to election year.

Figure A6: Market conditions in cities with higher real estate industry contributions prior to election year.

E Results by Whether Incumbent is Running

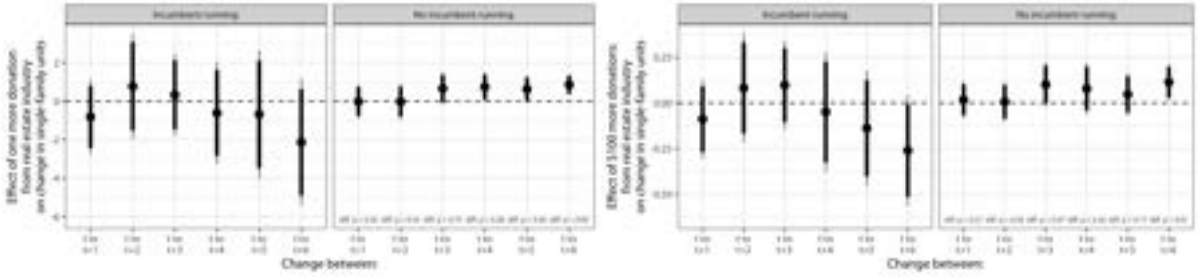
In this section, we run analyses examining the impact of donations from real estate industry groups on housing permitting comparing cities with open-seat elections vs. those with incumbents re-running for election. Rather than running subset models on city-years with incumbents running and city-years with open seat races, we analyze the effects of contributions to mayoral candidates on housing permitting using pooled models with an interaction term for whether or not the incumbent mayor is running in the race or not.

These results for the effects on the number of total units permitted are displayed in Figure A7, single-family units permitted in Figure A8, and multi-family units permitted in Figure A9 (and tabular versions are in Tables A7 and A8). They show that most of the effects that we identify on both total units and multi-family units occur in both types of races, though the confidence intervals for our estimates are far larger in city-years when an incumbent was running. At no point are the estimates between open-seat races and races with an incumbent running statistically distinguishable. This evidence is in line with the theoretical aims of the real estate industry targeting access (to both incumbents and any potential winner in open-seat races), rather than persuasion or replacement.



(a) Number of donations (b) Sum of donations

Figure A7: Effects of donations on total units permitted, by whether mayoral incumbent running



(a) Number of donations (b) Sum of donations

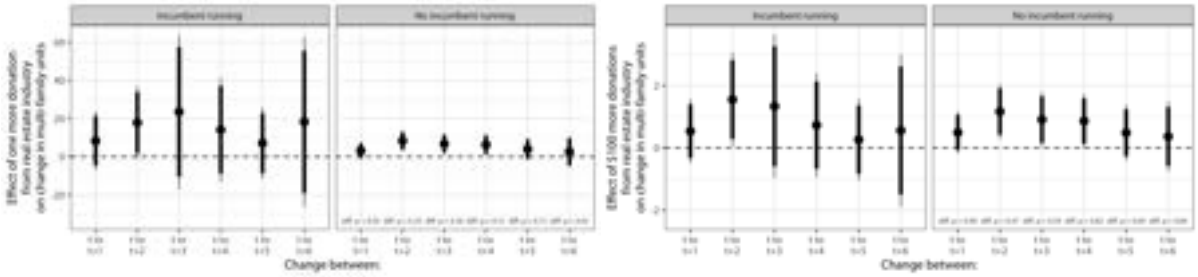
Figure A8: Effects of donations on single-family units permitted, by whether mayoral incumbent running

Table A7: Housing permits results, by whether incumbent running (# donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Incumbent running	7.526	18.643**	23.845	13.497	6.444	16.126
	(7.976)	(9.257)	(21.105)	(15.088)	(10.936)	(23.659)
No incumbent running	3.122	8.295***	7.446**	7.033**	4.631	3.430
	(2.558)	(2.961)	(3.071)	(3.125)	(3.347)	(4.473)
Difference p	0.525	0.182	0.380	0.615	0.853	0.555
N	230	230	230	230	217	200
Separate samples						
Incumbent running	-0.396	0.185	-3.078	-4.911	-2.820	5.771
	(1.570)	(3.347)	(4.120)	(3.932)	(6.628)	(7.488)
N	144	144	144	144	134	124
No incumbent running	-18.179	-19.671	-5.184	8.888***	17.575***	17.532***
	(16.189)	(24.275)	(10.367)	(2.070)	(3.602)	(0.164)
N	86	86	86	86	83	76
Single-family units						
One model						
Incumbent running	-0.815	0.773	0.330	-0.609	-0.681	-2.139
	(0.986)	(1.399)	(1.093)	(1.359)	(1.702)	(1.684)
No incumbent running	-0.018	-0.021	0.660	0.738*	0.626*	0.860***
	(0.454)	(0.476)	(0.433)	(0.392)	(0.364)	(0.286)
Difference p	0.357	0.543	0.749	0.278	0.401	0.060
N	230	230	230	230	217	200
Separate samples						
Incumbent running	-0.486	1.011	-0.515	-2.779*	-2.898	-1.857
	(0.780)	(1.530)	(1.269)	(1.568)	(2.191)	(1.913)
N	144	144	144	144	134	124
No incumbent running	-14.215***	-11.211***	-0.077	6.052***	14.758***	1.053***
	(2.255)	(0.553)	(1.487)	(1.688)	(2.932)	(0.310)
N	86	86	86	86	83	76
Multi-family units						
One model						
Incumbent running	8.342	17.869*	23.515	14.105	7.125	18.265
	(7.912)	(9.777)	(20.641)	(13.984)	(9.547)	(22.694)
No incumbent running	3.140	8.316***	6.785**	6.294**	4.004	2.570
	(2.348)	(2.777)	(2.824)	(2.917)	(3.072)	(4.285)
Difference p	0.451	0.242	0.360	0.510	0.717	0.447
N	230	230	230	230	217	200
Separate samples						
Incumbent running	0.090	-0.826	-2.563	-2.131	0.077	7.627
	(1.669)	(2.653)	(3.708)	(3.128)	(5.085)	(6.679)
N	144	144	144	144	134	124
No incumbent running	-3.964	-8.460	-5.107	2.835	2.817***	7.818***
	(13.945)	(24.822)	(9.050)	(2.494)	(0.818)	(0.566)
N	86	86	86	86	83	76

Table A8: Housing permits results, by whether incumbent running ($ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Incumbent running	0.446	1.631**	1.431	0.679	0.126	0.297
	(0.542)	(0.783)	(1.205)	(0.930)	(0.773)	(1.302)
No incumbent running	0.513	1.171**	1.008**	0.941*	0.533	0.479
	(0.371)	(0.475)	(0.487)	(0.484)	(0.506)	(0.600)
Difference p	0.845	0.424	0.608	0.685	0.528	0.856
N	230	230	230	230	217	200
Separate samples						
Incumbent running	-0.006	0.014	-0.499	-0.784*	-0.778	-0.115
	(0.261)	(0.520)	(0.371)	(0.444)	(0.597)	(0.559)
N	144	144	144	144	134	124
No incumbent running	2.032	6.946	1.836	-0.704	0.288	4.570***
	(4.295)	(5.855)	(2.348)	(3.139)	(3.528)	(0.253)
N	86	86	86	86	83	76
Single-family units						
One model						
Incumbent running	-0.089	0.082	0.097	-0.049	-0.138	-0.260*
	(0.110)	(0.152)	(0.123)	(0.168)	(0.161)	(0.155)
No incumbent running	0.018	0.006	0.101	0.079	0.047	0.114**
	(0.052)	(0.056)	(0.063)	(0.072)	(0.060)	(0.051)
Difference p	0.274	0.583	0.973	0.361	0.167	0.007
N	230	230	230	230	217	200
Separate samples						
Incumbent running	-0.016	0.108	0.064	-0.223	-0.301	-0.216
	(0.107)	(0.174)	(0.149)	(0.262)	(0.226)	(0.180)
N	144	144	144	144	134	124
No incumbent running	-1.245	-1.954	-0.306	0.224	0.652	0.256***
	(2.237)	(1.462)	(0.926)	(1.049)	(2.646)	(0.085)
N	86	86	86	86	83	76
Multi-family units						
One model						
Incumbent running	0.535	1.549**	1.334	0.728	0.264	0.558
	(0.522)	(0.768)	(1.170)	(0.850)	(0.666)	(1.247)
No incumbent running	0.495	1.165***	0.907**	0.861*	0.486	0.365
	(0.343)	(0.452)	(0.453)	(0.443)	(0.456)	(0.574)
Difference p	0.904	0.471	0.592	0.820	0.694	0.839
N	230	230	230	230	217	200
Separate samples						
Incumbent running	0.010	-0.094	-0.563	-0.561	-0.477	0.101
	(0.203)	(0.400)	(0.343)	(0.358)	(0.471)	(0.510)
N	144	144	144	144	134	124
No incumbent running	3.277	8.900**	2.142	-0.928	-0.364	2.019***
	(2.779)	(4.445)	(1.836)	(2.471)	(0.966)	(0.223)
N	86	86	86	86	83	76

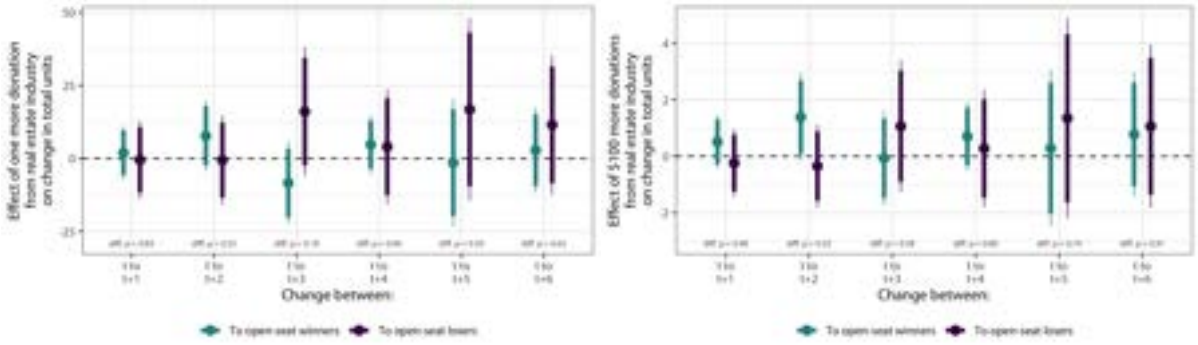


(a) Number of donations (b) Sum of donations

Figure A9: Effects of donations on multi-family units permitted, by whether mayoral incumbent running

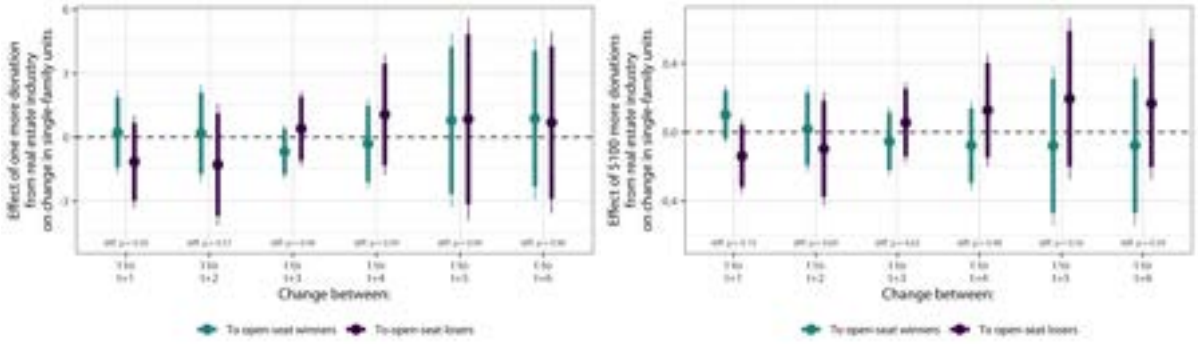
F Results in Open-Seat Races by Eventual Winner/Loser of Race

In this section, we run analyses examining the impact of donations from real estate industry groups on housing permitting in city-years with open-seat elections, comparing the effect of donations to the eventual winner and the eventual loser of the election. As in previous analyses of moderation, we analyze the effects of contributions on housing permitting using pooled models with an interaction term for whether or not the eventual open-seat candidate won the race or not. These results, shown in the figures and tables below, indicate little consistent difference between effects of contributions to these two types of recipient candidates.



(a) Number of donations (b) Sum of donations

Figure A10: Effects of donations on total units permitted, by whether donations went to winner or loser



(a) Number of donations (b) Sum of donations

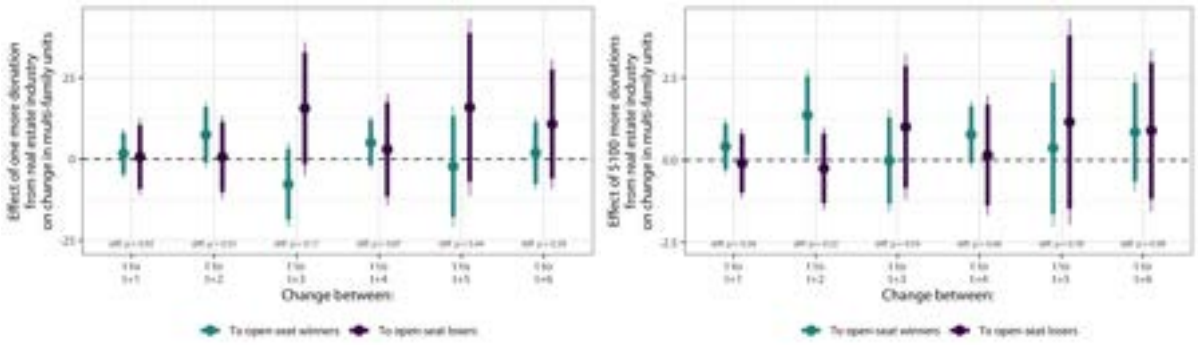
Figure A11: Effects of donations on single-family units permitted, by whether donations went to winner or loser

Table A9: Housing permits results in open-seat races, by eventual winner/loser (# donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
Main sample (uncoded real estate $ as control)						
To open-seat winners	1.946	7.710	-8.389	4.754	-1.450	2.835
	(4.703)	(6.204)	(7.149)	(5.093)	(11.130)	(7.461)
To open-seat losers	-0.463	-0.591	16.067	4.066	16.789	11.532
	(6.853)	(7.820)	(11.230)	(10.083)	(16.002)	(12.158)
Difference p	0.831	0.548	0.179	0.964	0.500	0.655
N	1,459	1,440	1,394	1,352	1,204	1,132
City-elections with $\geq$ 90% of real estate $ contest-coded						
To open-seat winners	2.950	7.568	-8.149	4.479	-2.303	0.749
	(4.989)	(6.932)	(7.923)	(6.300)	(13.329)	(9.397)
To open-seat losers	0.519	-1.132	16.653*	3.817	15.805	9.858
	(5.590)	(7.275)	(9.534)	(8.994)	(14.797)	(12.647)
Difference p	0.816	0.534	0.154	0.965	0.518	0.678
N	1,406	1,386	1,342	1,298	1,155	1,085
Single-family units						
Main sample (uncoded real estate $ as control)						
To open-seat winners	0.231	0.186	-0.677	-0.308	0.790	0.876
	(1.001)	(1.160)	(0.657)	(1.092)	(2.099)	(1.945)
To open-seat losers	-1.154	-1.284	0.404	1.066	0.845	0.691
	(1.110)	(1.466)	(0.911)	(1.455)	(2.430)	(2.180)
Difference p	0.505	0.571	0.485	0.585	0.990	0.964
N	1,459	1,440	1,394	1,352	1,204	1,132
City-elections with $\geq$ 90% of real estate $ contest-coded						
To open-seat winners	0.552	0.279	-0.799	-0.371	0.633	0.963
	(1.036)	(1.219)	(0.772)	(1.193)	(2.231)	(1.984)
To open-seat losers	-0.778	-1.224	0.239	1.005	0.549	0.607
	(0.981)	(1.324)	(0.893)	(1.403)	(2.556)	(2.139)
Difference p	0.506	0.552	0.531	0.594	0.986	0.931
N	1,406	1,386	1,342	1,298	1,155	1,085
Multi-family units						
Main sample (uncoded real estate $ as control)						
To open-seat winners	1.715	7.525	-7.712	5.063	-2.240	1.958
	(3.882)	(5.194)	(6.690)	(4.276)	(9.473)	(5.805)
To open-seat losers	0.691	0.693	15.664	3.000	15.945	10.841
	(6.010)	(6.539)	(10.505)	(8.799)	(13.916)	(10.208)
Difference p	0.916	0.553	0.170	0.873	0.436	0.576
N	1,459	1,440	1,394	1,352	1,204	1,132
City-elections with $\geq$ 90% of real estate $ contest-coded						
To open-seat winners	2.398	7.290	-7.349	4.850	-2.937	-0.214
	(4.211)	(5.871)	(7.306)	(5.321)	(11.421)	(7.665)
To open-seat losers	1.298	0.092	16.414*	2.813	15.256	9.251
	(4.927)	(6.123)	(8.849)	(7.819)	(12.706)	(10.784)
Difference p	0.903	0.542	0.139	0.875	0.449	0.606
N	1,406	1,386	1,342	1,298	1,155	1,085

Table A10: Housing permits results in open-seat races, by eventual winner/loser ($ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
Main sample (uncoded real estate $ as control)						
To open-seat winners	0.515	1.385*	-0.067	0.704	0.288	0.778
	(0.484)	(0.795)	(0.858)	(0.622)	(1.414)	(1.118)
To open-seat losers	-0.236	-0.345	1.067	0.280	1.353	1.064
	(0.613)	(0.747)	(1.199)	(1.061)	(1.812)	(1.473)
Difference p	0.477	0.250	0.577	0.798	0.740	0.910
N	1,459	1,440	1,394	1,352	1,204	1,132
City-elections with $\geq$ 90% of real estate $ contest-coded						
To open-seat winners	0.702	1.384	-0.013	0.757	0.368	0.353
	(0.599)	(0.873)	(1.039)	(0.826)	(1.717)	(1.305)
To open-seat losers	-0.179	-0.376	1.100	0.317	1.384	0.954
	(0.544)	(0.716)	(1.104)	(0.948)	(1.689)	(1.470)
Difference p	0.431	0.258	0.601	0.802	0.764	0.827
N	1,406	1,386	1,342	1,298	1,155	1,085
Single-family units						
Main sample (uncoded real estate $ as control)						
To open-seat winners	0.101	0.018	-0.053	-0.077	-0.079	-0.077
	(0.086)	(0.128)	(0.102)	(0.131)	(0.237)	(0.238)
To open-seat losers	-0.139	-0.097	0.056	0.128	0.194	0.167
	(0.110)	(0.169)	(0.119)	(0.167)	(0.240)	(0.225)
Difference p	0.189	0.693	0.616	0.482	0.558	0.586
N	1,459	1,440	1,394	1,352	1,204	1,132
City-elections with $\geq$ 90% of real estate $ contest-coded						
To open-seat winners	0.138	0.014	-0.091	-0.047	-0.014	0.061
	(0.100)	(0.140)	(0.106)	(0.137)	(0.219)	(0.226)
To open-seat losers	-0.126	-0.103	0.039	0.145	0.213	0.177
	(0.100)	(0.161)	(0.117)	(0.159)	(0.239)	(0.223)
Difference p	0.182	0.695	0.556	0.509	0.615	0.794
N	1,406	1,386	1,342	1,298	1,155	1,085
Multi-family units						
Main sample (uncoded real estate $ as control)						
To open-seat winners	0.414	1.368*	-0.014	0.781	0.368	0.855
	(0.426)	(0.719)	(0.799)	(0.523)	(1.223)	(0.916)
To open-seat losers	-0.097	-0.248	1.011	0.153	1.158	0.897
	(0.542)	(0.644)	(1.128)	(0.934)	(1.603)	(1.263)
Difference p	0.583	0.221	0.591	0.661	0.778	0.984
N	1,459	1,440	1,394	1,352	1,204	1,132
City-elections with $\geq$ 90% of real estate $ contest-coded						
To open-seat winners	0.564	1.370*	0.079	0.804	0.383	0.292
	(0.524)	(0.781)	(0.964)	(0.721)	(1.524)	(1.108)
To open-seat losers	-0.053	-0.272	1.062	0.172	1.171	0.777
	(0.482)	(0.617)	(1.035)	(0.833)	(1.496)	(1.278)
Difference p	0.530	0.228	0.619	0.679	0.792	0.838
N	1,406	1,386	1,342	1,298	1,155	1,085



(a) Number of donations (b) Sum of donations

Figure A12: Effects of donations on multi-family units permitted, by whether donations went to winner or loser

G Results from Alternative Sample Modifications

In this section, we run our analyses examining the impact of donations from real estate industry groups on housing permitting using single-state sub-samples of data to explore whether our overall results are masking significant heterogeneity across geography. Figures A13 and A14 present these effects in graphical format for the multi-family units outcome for California, South Carolina, Virginia, Washington, Iowa, and New Jersey separately, all (by construction) using city and election-year fixed effects rather than our main specification of city- and state-year fixed effects. The tables that follow (A11 and A12) present results across different time horizons post-election and different outcomes (total units, multi-family units, and single-family units). These results indicate a substantial degree of heterogeneity across states: while in WA and CA the impact of donations appears for just total and multi-family housing permitting, in SC the impact appears to be on single-family housing permitting only, and in some states at some time horizons there are sometimes *negative* effects of real estate industry contributions on housing permitting.

Alternatively, we assess whether our overall results are robust to the removal of individual states. These jackknife analyses, replicating our main specification of city- and state-year fixed effects, are presented in Figures A15 and A16 and Tables A13 and A14. The main conclusion evident in these results is that the removal of individual states (especially California) makes our estimates noisier, but maintains our primary result that increased numbers of donations and larger donations increase the permitting of multi-family housing.

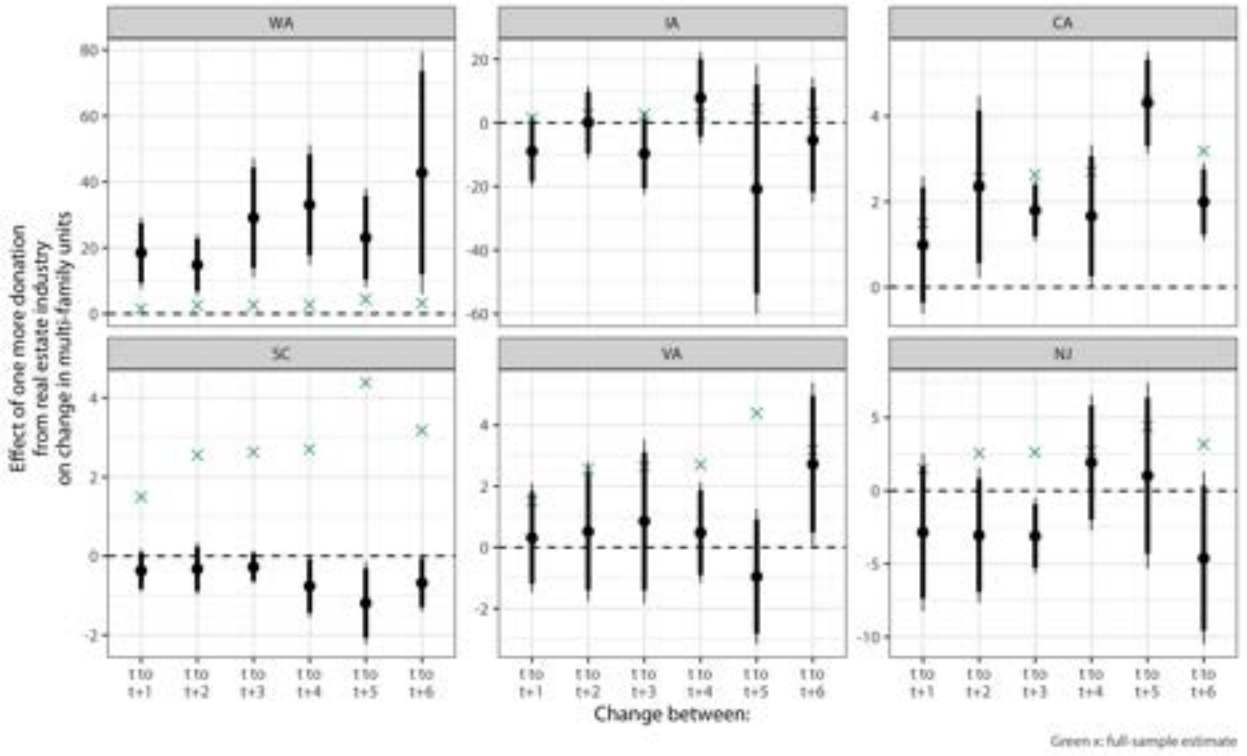


Figure A13: Alternative sample: results for each single state (# donations)

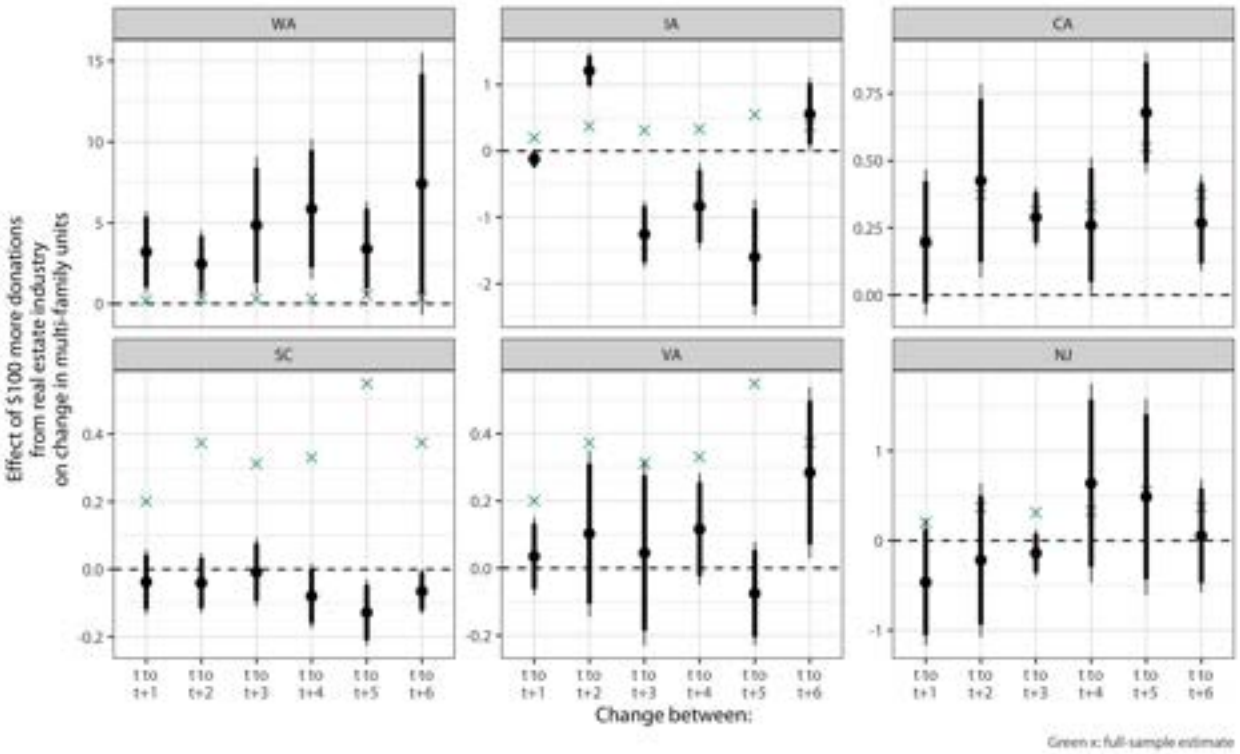


Figure A14: Alternative sample: results for each single state ($ donations)

Table A11: Alternative sample: results for each single state (# donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
WA	18.616***	14.975***	29.684***	33.817***	24.469***	43.526**
	(5.675)	(4.942)	(9.588)	(9.823)	(8.304)	(19.189)
N	445	444	444	443	364	364
IA	-5.849	0.930	-9.413*	6.911	-17.968	-0.693
	(7.590)	(6.033)	(5.514)	(8.282)	(19.651)	(9.400)
N	288	289	255	257	220	222
CA	0.939	1.889	1.504***	2.053***	4.821***	2.410***
	(1.008)	(1.285)	(0.354)	(0.718)	(0.478)	(0.517)
N	237	237	237	229	228	196
SC	0.022	0.436	0.302	-0.275	-0.700	-0.292
	(0.248)	(0.381)	(0.254)	(0.488)	(0.618)	(0.551)
N	189	188	180	176	157	149
VA	0.429	0.222	0.251	-0.236	-2.348*	1.716
	(1.146)	(1.350)	(1.487)	(1.199)	(1.221)	(1.646)
N	226	208	204	172	159	125
NJ	-3.194	-3.725	-3.641***	1.264	-2.167	-10.930***
	(3.059)	(2.867)	(1.246)	(2.208)	(1.474)	(3.619)
N	60	60	60	56	56	56
Multi-family units						
WA	18.472***	14.831***	29.105***	33.031***	23.072***	42.760**
	(5.521)	(4.819)	(9.259)	(9.316)	(7.711)	(18.721)
N	445	444	444	443	364	364
IA	-8.928	0.063	-9.652	7.859	-20.843	-5.413
	(5.764)	(5.835)	(6.615)	(7.401)	(19.997)	(10.040)
N	288	289	255	257	220	222
CA	0.987	2.346**	1.791***	1.659*	4.308***	1.992***
	(0.821)	(1.086)	(0.369)	(0.852)	(0.610)	(0.465)
N	237	237	237	229	228	196
SC	-0.370	-0.326	-0.279	-0.761*	-1.191**	-0.679*
	(0.279)	(0.340)	(0.216)	(0.410)	(0.536)	(0.372)
N	189	188	180	176	157	149
VA	0.313	0.516	0.851	0.478	-0.959	2.723*
	(0.917)	(1.168)	(1.373)	(0.844)	(1.134)	(1.359)
N	226	208	204	172	159	125
NJ	-2.852	-3.051	-3.106**	1.914	1.028	-4.622
	(2.753)	(2.365)	(1.326)	(2.380)	(3.247)	(3.015)
N	60	60	60	56	56	56
Single-family units						
WA	0.145	0.144	0.579	0.786	1.397**	0.765
	(0.221)	(0.250)	(0.391)	(0.555)	(0.628)	(0.509)
N	445	444	444	443	364	364
IA	3.079	0.867	0.239	-0.948	2.875	4.720*
	(2.409)	(1.626)	(2.939)	(2.231)	(2.095)	(2.631)
N	288	289	255	257	220	222
CA	-0.047	-0.457**	-0.287***	0.394**	0.513*	0.418*
	(0.195)	(0.210)	(0.073)	(0.184)	(0.274)	(0.234)
N	237	237	237	229	228	196
SC	0.392***	0.762***	0.581***	0.486***	0.491***	0.387*
	(0.070)	(0.127)	(0.120)	(0.169)	(0.171)	(0.220)
N	189	188	180	176	157	149
VA	0.116	-0.294	-0.600*	-0.714	-1.389***	-1.007***
	(0.324)	(0.352)	(0.328)	(0.521)	(0.508)	(0.365)
N	226	208	204	172	159	125
NJ	-0.343	-0.674	-0.535	-0.650	-3.195	-6.308
	(0.316)	(0.550)	(0.321)	(0.385)	(2.025)	(4.057)
N	60	60	60	56	56	56

Table A12: Alternative sample: results for each single state ($ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
WA	3.195**	2.402**	4.871**	5.887**	3.543**	7.453*
	(1.367)	(1.095)	(2.237)	(2.347)	(1.617)	(4.217)
N	445	444	444	443	364	364
IA	-0.191**	1.074***	-1.291***	-0.790**	-1.655***	0.546
	(0.088)	(0.157)	(0.251)	(0.343)	(0.482)	(0.345)
N	288	289	255	257	220	222
CA	0.205	0.371*	0.265***	0.348***	0.784***	0.356***
	(0.161)	(0.206)	(0.049)	(0.093)	(0.083)	(0.095)
N	237	237	237	229	228	196
SC	0.016	0.066	0.067	-0.017	-0.059	-0.013
	(0.044)	(0.056)	(0.054)	(0.060)	(0.059)	(0.052)
N	189	188	180	176	157	149
VA	0.046	0.066	-0.003	0.045	-0.176	0.225
	(0.089)	(0.156)	(0.158)	(0.107)	(0.111)	(0.157)
N	226	208	204	172	159	125
NJ	-0.522	-0.329	-0.217	0.552	0.124	-0.672
	(0.399)	(0.495)	(0.148)	(0.568)	(0.484)	(0.572)
N	60	60	60	56	56	56
Multi-family units						
WA	3.200**	2.462**	4.855**	5.859***	3.396**	7.410*
	(1.321)	(1.051)	(2.155)	(2.209)	(1.495)	(4.126)
N	445	444	444	443	364	364
IA	-0.121*	1.210***	-1.256***	-0.832**	-1.599***	0.557*
	(0.073)	(0.138)	(0.258)	(0.332)	(0.444)	(0.281)
N	288	289	255	257	220	222
CA	0.197	0.426**	0.289***	0.260**	0.678***	0.268***
	(0.138)	(0.184)	(0.056)	(0.129)	(0.114)	(0.091)
N	237	237	237	229	228	196
SC	-0.038	-0.041	-0.009	-0.080	-0.128**	-0.065*
	(0.049)	(0.045)	(0.052)	(0.049)	(0.050)	(0.034)
N	189	188	180	176	157	149
VA	0.035	0.103	0.045	0.116	-0.075	0.284**
	(0.059)	(0.127)	(0.140)	(0.085)	(0.079)	(0.130)
N	226	208	204	172	159	125
NJ	-0.464	-0.217	-0.139	0.638	0.488	0.055
	(0.360)	(0.438)	(0.132)	(0.567)	(0.560)	(0.322)
N	60	60	60	56	56	56
Single-family units						
WA	-0.005	-0.061	0.016	0.029	0.147	0.042
	(0.065)	(0.075)	(0.104)	(0.152)	(0.138)	(0.103)
N	445	444	444	443	364	364
IA	-0.070	-0.136**	-0.036	0.041	-0.056	-0.011
	(0.049)	(0.063)	(0.097)	(0.094)	(0.123)	(0.134)
N	288	289	255	257	220	222
CA	0.008	-0.055**	-0.024	0.087*	0.106*	0.088
	(0.024)	(0.026)	(0.023)	(0.045)	(0.063)	(0.056)
N	237	237	237	229	228	196
SC	0.054***	0.107***	0.076***	0.063***	0.069***	0.052**
	(0.010)	(0.017)	(0.014)	(0.020)	(0.021)	(0.024)
N	189	188	180	176	157	149
VA	0.011	-0.037	-0.048	-0.071**	-0.101**	-0.060*
	(0.034)	(0.030)	(0.035)	(0.032)	(0.047)	(0.033)
N	226	208	204	172	159	125
NJ	-0.058	-0.112	-0.078*	-0.087**	-0.364	-0.727
	(0.041)	(0.073)	(0.042)	(0.032)	(0.236)	(0.474)
N	60	60	60	56	56	56

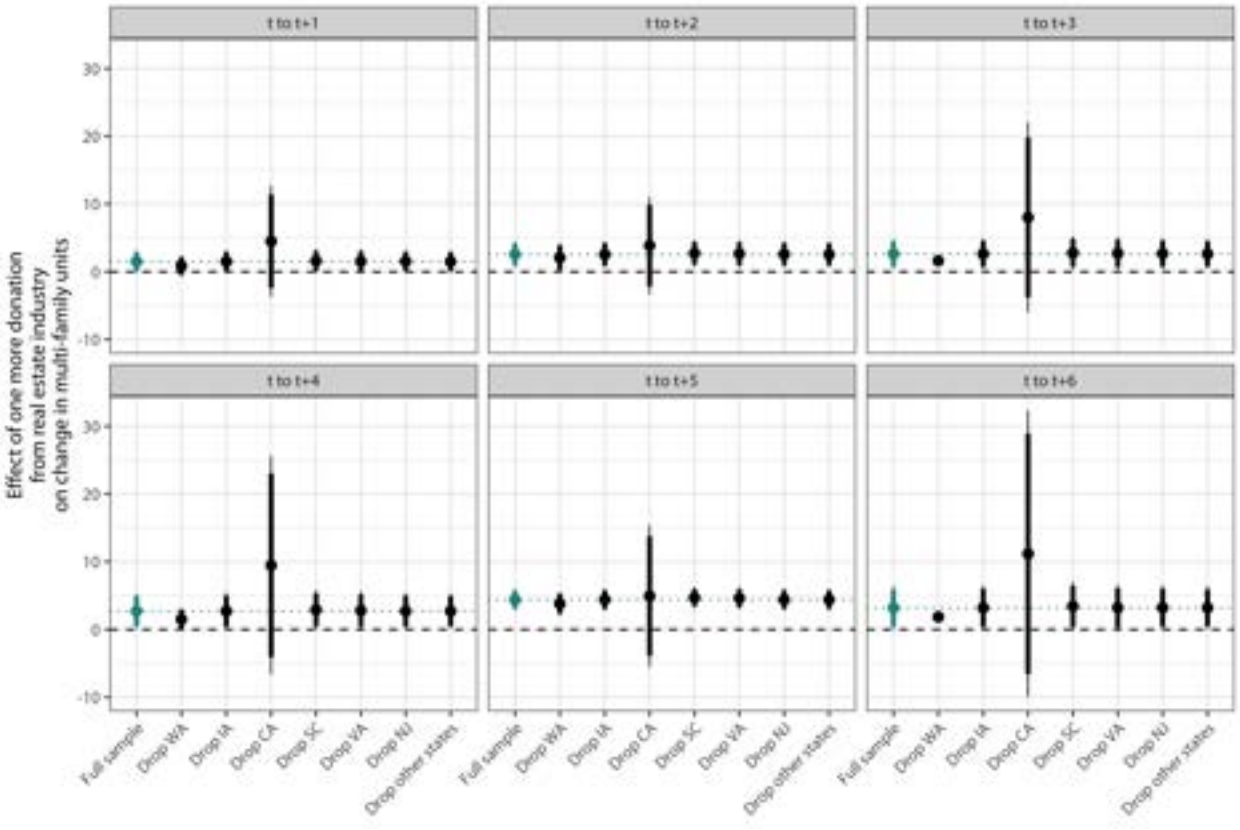


Figure A15: Alternative sample: results removing single states (# donations)

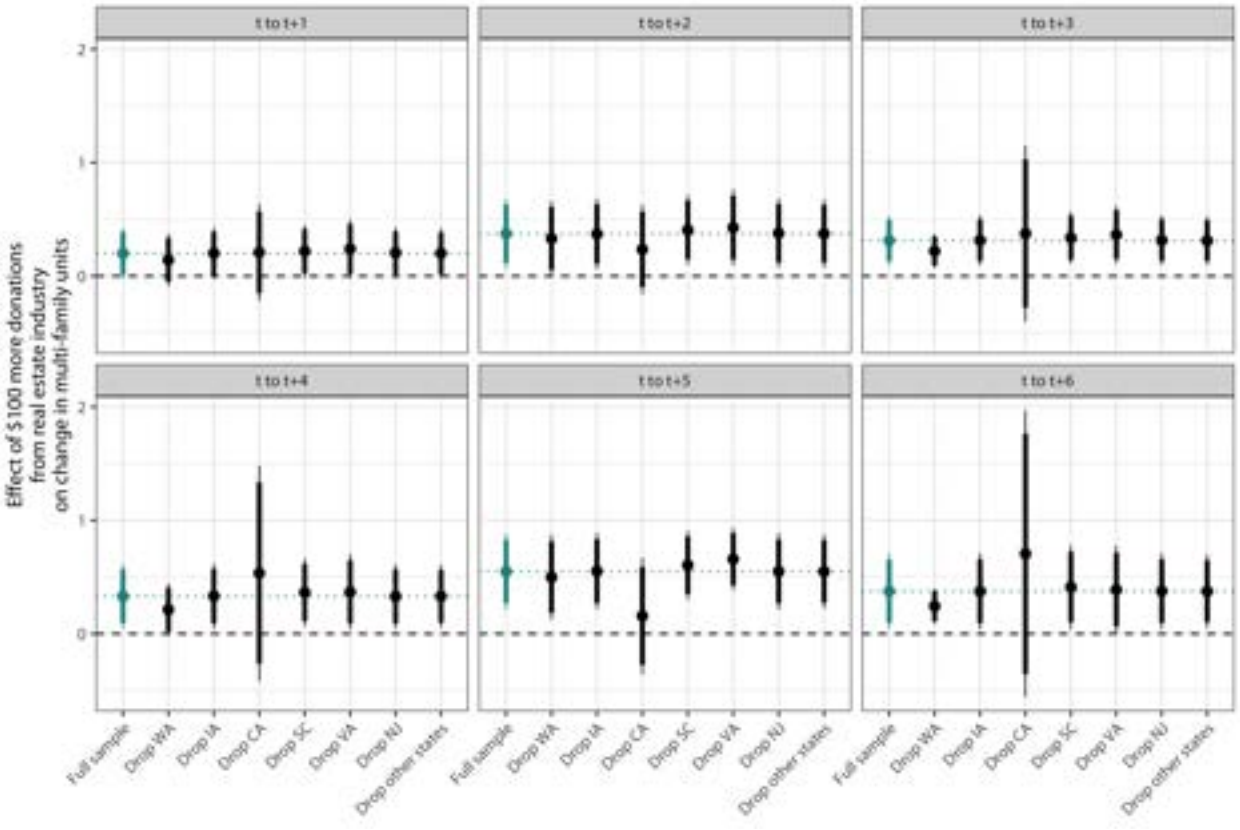


Figure A16: Alternative sample: results removing single states ($ donations)

Table A13: Alternative sample: results removing single states (# donations)

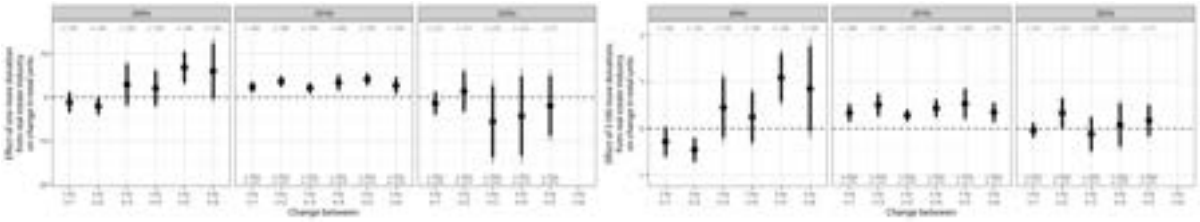
	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
Full sample	1.487	2.193*	2.405**	3.069**	4.842***	3.532**
	(0.946)	(1.128)	(1.192)	(1.370)	(0.820)	(1.741)
N	1,503	1,484	1,438	1,391	1,241	1,167
Drop WA	0.833	1.701	1.351***	1.833**	4.209***	2.177***
	(0.941)	(1.223)	(0.387)	(0.749)	(0.805)	(0.486)
N	1,058	1,040	994	948	877	803
Drop IA	1.490	2.194*	2.409**	3.068**	4.848***	3.533**
	(0.954)	(1.137)	(1.203)	(1.381)	(0.826)	(1.758)
N	1,215	1,195	1,183	1,134	1,021	945
Drop CA	4.715	4.089	8.194	9.652	4.990	11.055
	(4.207)	(3.621)	(7.284)	(8.473)	(5.672)	(10.951)
N	1,266	1,247	1,201	1,162	1,013	971
Drop SC	1.571	2.294*	2.518*	3.257**	5.151***	3.756*
	(0.989)	(1.168)	(1.286)	(1.478)	(0.797)	(1.915)
N	1,314	1,296	1,258	1,215	1,084	1,018
Drop VA	1.540	2.276*	2.495*	3.201**	5.125***	3.603*
	(0.990)	(1.161)	(1.270)	(1.451)	(0.815)	(1.836)
N	1,277	1,276	1,234	1,219	1,082	1,042
Drop NJ	1.516	2.230**	2.443**	3.076**	4.867***	3.585**
	(0.947)	(1.125)	(1.207)	(1.373)	(0.817)	(1.760)
N	1,443	1,424	1,378	1,335	1,185	1,111
Drop other states	1.487	2.193**	2.405**	3.069**	4.842***	3.532**
	(0.930)	(1.108)	(1.171)	(1.344)	(0.803)	(1.705)
N	1,445	1,426	1,380	1,333	1,184	1,112
Multi-family units						
Full sample	1.496*	2.556**	2.630**	2.702**	4.387***	3.181*
	(0.849)	(0.998)	(1.149)	(1.371)	(0.833)	(1.680)
N	1,503	1,484	1,438	1,391	1,241	1,167
Drop WA	0.849	2.083*	1.606***	1.482*	3.784***	1.840***
	(0.792)	(1.085)	(0.420)	(0.848)	(0.891)	(0.461)
N	1,058	1,040	994	948	877	803
Drop IA	1.501*	2.557**	2.634**	2.700*	4.394***	3.184*
	(0.856)	(1.006)	(1.158)	(1.382)	(0.839)	(1.697)
N	1,215	1,195	1,183	1,134	1,021	945
Drop CA	4.500	3.864	8.016	9.455	4.937	11.158
	(4.193)	(3.654)	(7.164)	(8.246)	(5.364)	(10.788)
N	1,266	1,247	1,201	1,162	1,013	971
Drop SC	1.603*	2.721***	2.786**	2.896*	4.698***	3.407*
	(0.887)	(1.010)	(1.246)	(1.476)	(0.781)	(1.847)
N	1,314	1,296	1,258	1,215	1,084	1,018
Drop VA	1.556*	2.641**	2.704**	2.790*	4.597***	3.199*
	(0.891)	(1.024)	(1.218)	(1.443)	(0.818)	(1.755)
N	1,277	1,276	1,234	1,219	1,082	1,042
Drop NJ	1.523*	2.591***	2.665**	2.705**	4.399***	3.210*
	(0.851)	(0.995)	(1.162)	(1.373)	(0.832)	(1.691)
N	1,443	1,424	1,378	1,335	1,185	1,111
Drop other states	1.496*	2.556***	2.630**	2.702**	4.387***	3.181*
	(0.834)	(0.981)	(1.128)	(1.345)	(0.816)	(1.645)
N	1,445	1,426	1,380	1,333	1,184	1,112
Single-family units						
Full sample	-0.009	-0.363**	-0.224**	0.368**	0.455**	0.351*
	(0.152)	(0.171)	(0.095)	(0.157)	(0.222)	(0.184)
N	1,503	1,484	1,438	1,391	1,241	1,167
Drop WA	-0.015	-0.382**	-0.255***	0.351**	0.425*	0.337*
	(0.162)	(0.181)	(0.084)	(0.160)	(0.221)	(0.189)
N	1,058	1,040	994	948	877	803
Drop IA	-0.010	-0.363**	-0.225**	0.368**	0.454**	0.350*
	(0.153)	(0.172)	(0.096)	(0.158)	(0.224)	(0.186)
N	1,215	1,195	1,183	1,134	1,021	945
Drop CA	0.215	0.225	0.178	0.197	0.053	-0.103
	(0.146)	(0.244)	(0.274)	(0.374)	(0.506)	(0.429)
N	1,266	1,247	1,201	1,162	1,013	971
Drop SC	-0.032	-0.427**	-0.268***	0.361**	0.453*	0.349*
	(0.167)	(0.181)	(0.079)	(0.164)	(0.234)	(0.194)
N	1,314	1,296	1,258	1,215	1,084	1,018
Drop VA	-0.015	-0.365**	-0.209**	0.410**	0.527**	0.404**
	(0.161)	(0.178)	(0.105)	(0.171)	(0.256)	(0.205)
N	1,277	1,276	1,234	1,219	1,082	1,042
Drop NJ	-0.007	-0.361**	-0.222**	0.371**	0.468**	0.375**
	(0.152)	(0.171)	(0.096)	(0.158)	(0.227)	(0.190)
N	1,443	1,424	1,378	1,335	1,185	1,111
Drop other states	-0.009	-0.363**	-0.224**	0.368**	0.455**	0.351*
	(0.149)	(0.168)	(0.094)	(0.154)	(0.218)	(0.180)
N	1,445	1,426	1,380	1,333	1,184	1,112

Table A14: Alternative sample: results removing single states ($ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
Full sample	0.211*	0.333**	0.292***	0.390***	0.619***	0.433**
	(0.127)	(0.166)	(0.112)	(0.138)	(0.171)	(0.175)
N	1,503	1,484	1,438	1,391	1,241	1,167
Drop WA	0.153	0.291	0.198***	0.272***	0.567***	0.301***
	(0.133)	(0.177)	(0.066)	(0.104)	(0.190)	(0.083)
N	1,058	1,040	994	948	877	803
Drop IA	0.212*	0.331*	0.294***	0.391***	0.622***	0.432**
	(0.129)	(0.168)	(0.113)	(0.140)	(0.171)	(0.177)
N	1,215	1,195	1,183	1,134	1,021	945
Drop CA	0.226	0.233	0.365	0.511	0.118	0.670
	(0.221)	(0.202)	(0.402)	(0.499)	(0.280)	(0.648)
N	1,266	1,247	1,201	1,162	1,013	971
Drop SC	0.227*	0.355**	0.309**	0.423***	0.673***	0.471**
	(0.134)	(0.173)	(0.121)	(0.147)	(0.156)	(0.196)
N	1,314	1,296	1,258	1,215	1,084	1,018
Drop VA	0.250*	0.387**	0.350**	0.451***	0.757***	0.466**
	(0.148)	(0.184)	(0.136)	(0.162)	(0.124)	(0.208)
N	1,277	1,276	1,234	1,219	1,082	1,042
Drop NJ	0.217*	0.338**	0.296***	0.388***	0.622***	0.440**
	(0.127)	(0.166)	(0.113)	(0.139)	(0.170)	(0.177)
N	1,443	1,424	1,378	1,335	1,185	1,111
Drop other states	0.211*	0.333**	0.292***	0.390***	0.619***	0.433**
	(0.125)	(0.163)	(0.110)	(0.136)	(0.167)	(0.171)
N	1,445	1,426	1,380	1,333	1,184	1,112
Multi-family units						
Full sample	0.201*	0.373**	0.312***	0.330**	0.549***	0.374**
	(0.114)	(0.157)	(0.111)	(0.144)	(0.171)	(0.169)
N	1,503	1,484	1,438	1,391	1,241	1,167
Drop WA	0.142	0.331*	0.220***	0.212*	0.499***	0.243***
	(0.118)	(0.169)	(0.077)	(0.118)	(0.192)	(0.080)
N	1,058	1,040	994	948	877	803
Drop IA	0.201*	0.371**	0.315***	0.332**	0.552***	0.374**
	(0.115)	(0.159)	(0.112)	(0.145)	(0.172)	(0.171)
N	1,215	1,195	1,183	1,134	1,021	945
Drop CA	0.209	0.235	0.375	0.534	0.157	0.704
	(0.219)	(0.202)	(0.397)	(0.485)	(0.263)	(0.644)
N	1,266	1,247	1,201	1,162	1,013	971
Drop SC	0.219*	0.407**	0.337***	0.364**	0.604***	0.412**
	(0.118)	(0.157)	(0.118)	(0.153)	(0.155)	(0.189)
N	1,314	1,296	1,258	1,215	1,084	1,018
Drop VA	0.239*	0.428**	0.365***	0.369**	0.658***	0.388*
	(0.133)	(0.172)	(0.131)	(0.169)	(0.140)	(0.198)
N	1,277	1,276	1,234	1,219	1,082	1,042
Drop NJ	0.206*	0.378**	0.316***	0.328**	0.549***	0.376**
	(0.114)	(0.157)	(0.112)	(0.145)	(0.172)	(0.170)
N	1,443	1,424	1,378	1,335	1,185	1,111
Drop other states	0.201*	0.373**	0.312***	0.330**	0.549***	0.374**
	(0.112)	(0.154)	(0.109)	(0.142)	(0.168)	(0.166)
N	1,445	1,426	1,380	1,333	1,184	1,112
Single-family units						
Full sample	0.011	-0.040*	-0.021	0.059*	0.070*	0.058
	(0.018)	(0.022)	(0.020)	(0.031)	(0.042)	(0.037)
N	1,503	1,484	1,438	1,391	1,241	1,167
Drop WA	0.011	-0.040*	-0.021	0.060*	0.069	0.059
	(0.018)	(0.023)	(0.020)	(0.032)	(0.044)	(0.039)
N	1,058	1,040	994	948	877	803
Drop IA	0.011	-0.040*	-0.021	0.059*	0.070	0.059
	(0.018)	(0.022)	(0.020)	(0.031)	(0.043)	(0.038)
N	1,215	1,195	1,183	1,134	1,021	945
Drop CA	0.018	-0.002	-0.011	-0.023	-0.039	-0.034
	(0.024)	(0.033)	(0.031)	(0.039)	(0.047)	(0.040)
N	1,266	1,247	1,201	1,162	1,013	971
Drop SC	0.007	-0.052**	-0.028	0.059*	0.070	0.059
	(0.019)	(0.021)	(0.017)	(0.033)	(0.046)	(0.040)
N	1,314	1,296	1,258	1,215	1,084	1,018
Drop VA	0.011	-0.041	-0.015	0.082**	0.100*	0.077*
	(0.020)	(0.026)	(0.026)	(0.037)	(0.053)	(0.045)
N	1,277	1,276	1,234	1,219	1,082	1,042
Drop NJ	0.011	-0.040*	-0.020	0.060*	0.073*	0.064*
	(0.018)	(0.022)	(0.020)	(0.031)	(0.043)	(0.038)
N	1,443	1,424	1,378	1,335	1,185	1,111
Drop other states	0.011	-0.040*	-0.021	0.059*	0.070*	0.058
	(0.017)	(0.022)	(0.020)	(0.030)	(0.041)	(0.036)
N	1,445	1,426	1,380	1,333	1,184	1,112

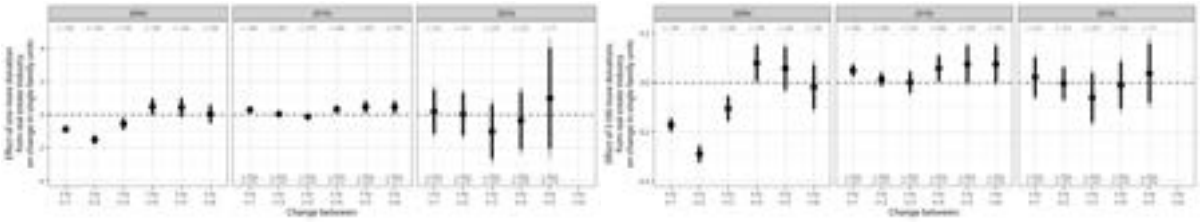
H Results in Different Time Periods

In this section, we run our analyses examining the impact of donations from real estate industry groups on housing permitting in earlier years relative to later years. The figures below present results showing the impact of donations in different time periods, using both interactions between time periods and the main independent variables via pooled models, and (in the tables) subset models. Because only four states in our data reliably include contributions in elections in earlier time periods, we also present (in the tables) analyses restricted to these full-panel states. These results suggest that our results for housing permitting appear to occur in both the 2000s and the 2010s, but that our estimates are less precise in the earlier time period. In only a few comparisons are the effects in different time periods statistically distinguishable from one another.



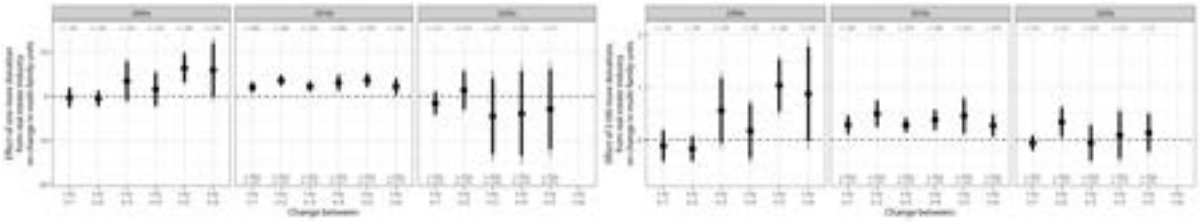
(a) Number of donations (b) Sum of donations

Figure A17: Effects of real estate industry donations on total units permitted by decade



(a) Number of donations (b) Sum of donations

Figure A18: Effects of real estate industry donations on single-family units permitted by decade



(a) Number of donations (b) Sum of donations

Figure A19: Effects of real estate industry donations on multi-family units permitted by decade

Table A15: Effects of # of donations on housing units over time

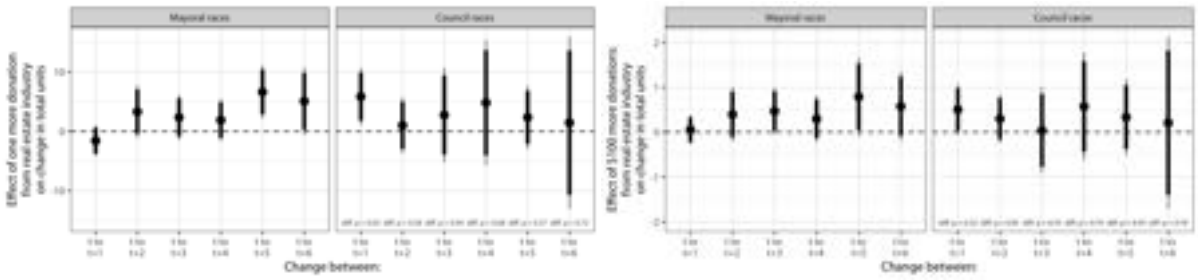
	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Elections in the 2000s	-1.159	-2.026*	2.929	2.060	6.840***	6.011
	(1.384)	(1.186)	(2.833)	(2.410)	(2.163)	(3.859)
Elections in the 2010s	2.350***	3.630***	2.123***	3.359***	4.107***	2.705**
	(0.736)	(0.737)	(0.678)	(1.048)	(0.806)	(1.113)
Elections in the 2020s	-1.383	1.376	-5.530	-4.282	-1.919	
	(1.561)	(2.763)	(4.958)	(5.529)	(4.176)	
2010s vs 2000s p	0.001	0.000	0.716	0.377	0.224	0.281
2020s vs 2000s p	0.877	0.189	0.039	0.185	0.029	
All equal p	0.000	0.000	0.110	0.332	0.047	0.281
N	1,503	1,484	1,438	1,391	1,241	1,167
One model, CA, IA, SC and WA only						
Elections in the 2000s	-1.071	-2.065*	2.717	1.899	6.628***	6.146
	(1.416)	(1.223)	(2.941)	(2.448)	(2.204)	(3.837)
Elections in the 2010s	2.456***	3.714***	2.039**	3.376***	4.148***	2.788**
	(0.768)	(0.718)	(0.815)	(1.150)	(0.620)	(1.160)
Elections in the 2020s	-1.827	-6.537	-20.422	-20.501*	-32.469***	
	(4.481)	(6.275)	(15.237)	(12.167)	(5.515)	
2010s vs 2000s p	0.001	0.000	0.754	0.284	0.248	0.264
2020s vs 2000s p	0.851	0.453	0.094	0.044	0.000	
All equal p	0.002	0.000	0.152	0.119	0.000	0.264
N	1,159	1,158	1,116	1,105	969	931
One model, linear in election year						
RE donations (2010)	1.390*	2.071**	2.460**	3.068**	4.944***	3.602**
	(0.830)	(0.850)	(1.237)	(1.384)	(0.902)	(1.779)
RE donations × decades since 2010	2.503***	3.580***	-1.672**	0.029	-3.035**	-1.748
	(0.862)	(0.789)	(0.840)	(0.789)	(1.276)	(1.278)
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Elections in the 2000s	-4.074***	-9.706***	-3.146**	-8.385***	-1.735	-1.067
	(1.036)	(1.314)	(1.391)	(1.081)	(1.822)	(1.338)
N	189	189	189	189	188	188
Elections in the 2010s	2.911***	3.667***	0.747	2.826***	4.284***	3.095**
	(0.761)	(0.755)	(0.566)	(0.683)	(0.822)	(1.228)
N	983	983	979	980	978	979
Elections in the 2020s	0.323	13.603	8.044	2.477		
	(2.328)	(8.515)	(6.431)	(4.367)		
N	331	312	270	222		
Multi-family units						
One model						
Elections in the 2000s	-0.280	-0.516	3.482	1.580	6.403***	5.965
	(1.304)	(1.059)	(2.696)	(2.290)	(1.983)	(3.697)
Elections in the 2010s	2.060***	3.593***	2.244***	3.036***	3.641***	2.253**
	(0.689)	(0.739)	(0.673)	(1.064)	(0.895)	(1.090)
Elections in the 2020s	-1.573	1.349	-4.515	-3.914	-2.909	
	(1.567)	(2.627)	(5.180)	(5.816)	(5.512)	
2010s vs 2000s p	0.014	0.000	0.559	0.271	0.168	0.191
2020s vs 2000s p	0.340	0.430	0.062	0.277	0.072	
All equal p	0.005	0.000	0.131	0.374	0.035	0.191
N	1,503	1,484	1,438	1,391	1,241	1,167
One model, CA, IA, SC and WA only						
Elections in the 2000s	-0.236	-0.605	3.240	1.388	5.993***	6.000
	(1.341)	(1.100)	(2.810)	(2.321)	(2.012)	(3.649)
Elections in the 2010s	2.126***	3.631***	2.127***	2.999**	3.485***	2.259**
	(0.725)	(0.714)	(0.798)	(1.156)	(0.691)	(1.118)
Elections in the 2020s	-4.034	-8.604	-20.416	-20.691	-45.236***	
	(4.840)	(6.122)	(16.606)	(13.914)	(10.426)	
2010s vs 2000s p	0.011	0.000	0.592	0.195	0.192	0.177
2020s vs 2000s p	0.385	0.162	0.120	0.088	0.000	
All equal p	0.032	0.000	0.140	0.174	0.000	0.177
N	1,159	1,158	1,116	1,105	969	931
One model, linear in election year						
RE donations (2010)	1.431*	2.467***	2.681**	2.680**	4.481***	3.252*
	(0.780)	(0.811)	(1.187)	(1.358)	(0.965)	(1.737)
RE donations × decades since 2010	1.682**	2.599***	-1.549*	0.614	-2.771**	-1.779
	(0.764)	(0.721)	(0.840)	(0.820)	(1.150)	(1.223)
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Elections in the 2000s	-3.072***	-7.195***	-1.050	-7.435***	-1.135	-0.572
	(0.814)	(1.133)	(1.247)	(0.849)	(1.514)	(1.075)
N	189	189	189	189	188	188
Elections in the 2010s	2.507***	3.607***	0.914	2.632***	3.834***	2.989**
	(0.676)	(0.642)	(0.576)	(0.664)	(0.772)	(1.255)
N	983	983	979	980	978	979
Elections in the 2020s	-1.245	9.666	7.102	4.175		
	(1.787)	(8.021)	(5.422)	(5.955)		
N	331	312	270	222		
Single-family units						
One model						
Elections in the 2000s	-0.880***	-1.510***	-0.553***	0.481	0.436	0.046
	(0.108)	(0.159)	(0.207)	(0.292)	(0.340)	(0.331)
Elections in the 2010s	0.290***	0.037	-0.121	0.323**	0.466**	0.453**
	(0.094)	(0.087)	(0.104)	(0.134)	(0.214)	(0.224)
Elections in the 2020s	0.191	0.026	-1.015	-0.367	0.990	
	(0.806)	(0.781)	(1.000)	(1.057)	(1.858)	
2010s vs 2000s p	0.000	0.000	0.023	0.567	0.918	0.166
2020s vs 2000s p	0.171	0.067	0.667	0.477	0.783	
All equal p	0.000	0.000	0.024	0.755	0.963	0.166
N	1,503	1,484	1,438	1,391	1,241	1,167
One model, CA, IA, SC and WA only						
Elections in the 2000s	-0.835***	-1.460***	-0.523***	0.511*	0.635**	0.146
	(0.116)	(0.146)	(0.184)	(0.279)	(0.286)	(0.337)
Elections in the 2010s	0.330***	0.083	-0.088	0.377***	0.662***	0.529**
	(0.099)	(0.085)	(0.103)	(0.137)	(0.198)	(0.249)
Elections in the 2020s	2.208	2.068	-0.005	0.190	12.767*	
	(1.643)	(1.928)	(2.003)	(2.494)	(7.161)	
2010s vs 2000s p	0.000	0.000	0.014	0.598	0.917	0.173
2020s vs 2000s p	0.057	0.072	0.806	0.903	0.094	
All equal p	0.000	0.000	0.025	0.858	0.245	0.173
N	1,159	1,158	1,116	1,105	969	931
One model, linear in election year						
RE donations (2010)	-0.041	-0.396***	-0.220**	0.389***	0.464**	0.350*
	(0.106)	(0.076)	(0.098)	(0.121)	(0.201)	(0.187)
RE donations × decades since 2010	0.821***	0.980***	-0.123	-0.585***	-0.264	0.031
	(0.118)	(0.138)	(0.111)	(0.160)	(0.190)	(0.163)
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Elections in the 2000s	-1.002***	-2.511***	-2.096***	-0.950***	-0.600*	-0.495*
	(0.223)	(0.181)	(0.161)	(0.242)	(0.331)	(0.291)
N	189	189	189	189	188	188
Elections in the 2010s	0.404**	0.061	-0.166	0.194	0.450***	0.107
	(0.163)	(0.139)	(0.104)	(0.149)	(0.150)	(0.136)
N	983	983	979	980	978	979
Elections in the 2020s	1.568	3.937	0.942	-1.698		
	(1.233)	(2.224)	(1.851)	(1.723)		
N	331	312	270	222		

Table A16: Effects of $ of donations on housing units over time

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Elections in the 2000s	-0.285	-0.459***	0.451	0.247	1.092***	0.855
	(0.186)	(0.153)	(0.392)	(0.327)	(0.315)	(0.555)
Elections in the 2010s	0.335***	0.509***	0.282***	0.435***	0.531***	0.345***
	(0.113)	(0.143)	(0.075)	(0.113)	(0.193)	(0.125)
Elections in the 2020s	-0.037	0.334*	-0.120	0.079	0.171	
	(0.094)	(0.192)	(0.217)	(0.281)	(0.201)	
2010s vs 2000s p	0.000	0.000	0.639	0.487	0.136	0.306
2020s vs 2000s p	0.118	0.000	0.098	0.601	0.010	
All equal p	0.000	0.000	0.097	0.479	0.032	0.306
N	1,503	1,484	1,438	1,391	1,241	1,167
One model, CA, IA, SC and WA only						
Elections in the 2000s	-0.256	-0.435**	0.441	0.244	1.122***	0.900
	(0.198)	(0.168)	(0.415)	(0.340)	(0.324)	(0.567)
Elections in the 2010s	0.386***	0.599***	0.314***	0.497***	0.648***	0.370**
	(0.120)	(0.122)	(0.082)	(0.122)	(0.125)	(0.145)
Elections in the 2020s	-0.290	-0.587	-1.991	-1.841	-2.370**	
	(0.444)	(0.728)	(1.505)	(1.137)	(1.028)	
2010s vs 2000s p	0.000	0.000	0.714	0.300	0.182	0.286
2020s vs 2000s p	0.931	0.818	0.067	0.037	0.000	
All equal p	0.001	0.000	0.124	0.101	0.000	0.286
N	1,159	1,158	1,116	1,105	969	931
One model, linear in election year						
RE donations (2010)	0.156	0.251	0.366**	0.408**	0.743***	0.495**
	(0.127)	(0.160)	(0.142)	(0.161)	(0.140)	(0.202)
RE donations × decades since 2010	0.241	0.378**	-0.346**	-0.090	-0.634***	-0.341*
	(0.182)	(0.183)	(0.153)	(0.158)	(0.185)	(0.204)
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Elections in the 2000s	-0.639***	-1.638***	-0.444**	-1.401***	-0.194	-0.097
	(0.162)	(0.217)	(0.208)	(0.194)	(0.271)	(0.203)
N	189	189	189	189	188	188
Elections in the 2010s	0.400***	0.491***	0.043	0.315***	0.483**	0.354***
	(0.132)	(0.180)	(0.055)	(0.101)	(0.218)	(0.131)
N	983	983	979	980	978	979
Elections in the 2020s	-0.055	0.477	0.378	0.480		
	(0.119)	(0.335)	(0.254)	(0.395)		
N	331	312	270	222		
Multi-family units						
One model						
Elections in the 2000s	-0.113	-0.170	0.556	0.168	1.034***	0.872
	(0.176)	(0.140)	(0.376)	(0.315)	(0.298)	(0.542)
Elections in the 2010s	0.285***	0.496***	0.281***	0.377***	0.457**	0.270**
	(0.105)	(0.149)	(0.083)	(0.115)	(0.200)	(0.122)
Elections in the 2020s	-0.059	0.338**	-0.059	0.091	0.133	
	(0.086)	(0.169)	(0.203)	(0.272)	(0.216)	
2010s vs 2000s p	0.014	0.000	0.434	0.400	0.089	0.197
2020s vs 2000s p	0.714	0.003	0.055	0.790	0.005	
All equal p	0.000	0.000	0.077	0.532	0.021	0.197
N	1,503	1,484	1,438	1,391	1,241	1,167
One model, CA, IA, SC and WA only						
Elections in the 2000s	-0.090	-0.152	0.545	0.155	1.033***	0.885
	(0.189)	(0.156)	(0.398)	(0.324)	(0.303)	(0.546)
Elections in the 2010s	0.326***	0.575***	0.307***	0.415***	0.535***	0.269*
	(0.114)	(0.133)	(0.081)	(0.125)	(0.148)	(0.140)
Elections in the 2020s	-0.486	-0.724	-1.847	-1.796	-3.291*	
	(0.479)	(0.728)	(1.632)	(1.284)	(1.779)	
2010s vs 2000s p	0.009	0.000	0.485	0.247	0.119	0.179
2020s vs 2000s p	0.349	0.382	0.101	0.092	0.013	
All equal p	0.023	0.000	0.109	0.200	0.002	0.179
N	1,159	1,158	1,116	1,105	969	931
One model, linear in election year						
RE donations (2010)	0.171	0.323**	0.385***	0.328**	0.660***	0.435**
	(0.116)	(0.154)	(0.138)	(0.166)	(0.162)	(0.205)
RE donations × decades since 2010	0.128	0.230	-0.341**	0.011	-0.568***	-0.331*
	(0.155)	(0.156)	(0.145)	(0.157)	(0.165)	(0.196)
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Elections in the 2000s	-0.477***	-1.206***	-0.094	-1.262***	-0.126	-0.047
	(0.130)	(0.184)	(0.175)	(0.148)	(0.218)	(0.154)
N	189	189	189	189	188	188
Elections in the 2010s	0.344***	0.492***	0.067	0.292***	0.430**	0.342**
	(0.110)	(0.160)	(0.050)	(0.085)	(0.198)	(0.133)
N	983	983	979	980	978	979
Elections in the 2020s	-0.129	0.346	0.293	0.643		
	(0.088)	(0.318)	(0.218)	(0.497)		
N	331	312	270	222		
Single-family units						
One model						
Elections in the 2000s	-0.172***	-0.290***	-0.105***	0.079*	0.057	-0.018
	(0.016)	(0.021)	(0.030)	(0.044)	(0.053)	(0.055)
Elections in the 2010s	0.050***	0.013	0.001	0.058*	0.074	0.074*
	(0.015)	(0.016)	(0.026)	(0.031)	(0.046)	(0.045)
Elections in the 2020s	0.022	-0.004	-0.061	-0.011	0.038	
	(0.049)	(0.040)	(0.060)	(0.057)	(0.073)	
2010s vs 2000s p	0.000	0.000	0.000	0.574	0.707	0.036
2020s vs 2000s p	0.000	0.000	0.517	0.239	0.823	
All equal p	0.000	0.000	0.000	0.497	0.828	0.036
N	1,503	1,484	1,438	1,391	1,241	1,167
One model, CA, IA, SC and WA only						
Elections in the 2000s	-0.166***	-0.284***	-0.103***	0.089**	0.089*	0.014
	(0.017)	(0.020)	(0.030)	(0.045)	(0.049)	(0.054)
Elections in the 2010s	0.059***	0.024	0.007	0.082**	0.113**	0.101*
	(0.016)	(0.019)	(0.033)	(0.038)	(0.055)	(0.056)
Elections in the 2020s	0.196	0.137	-0.144	-0.045	0.921	
	(0.140)	(0.151)	(0.246)	(0.261)	(0.904)	
2010s vs 2000s p	0.000	0.000	0.000	0.837	0.582	0.044
2020s vs 2000s p	0.007	0.008	0.876	0.632	0.364	
All equal p	0.000	0.000	0.000	0.882	0.533	0.044
N	1,159	1,158	1,116	1,105	969	931
One model, linear in election year						
RE donations (2010)	-0.015	-0.073***	-0.020	0.079***	0.083**	0.060
	(0.016)	(0.012)	(0.019)	(0.025)	(0.038)	(0.037)
RE donations × decades since 2010	0.113***	0.148***	-0.004	-0.101***	-0.065*	-0.010
	(0.032)	(0.032)	(0.018)	(0.022)	(0.035)	(0.028)
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Elections in the 2000s	-0.162***	-0.431***	-0.350***	-0.139***	-0.068	-0.051
	(0.033)	(0.034)	(0.040)	(0.049)	(0.064)	(0.061)
N	189	189	189	189	188	188
Elections in the 2010s	0.056**	-0.001	-0.025*	0.022	0.053	0.011
	(0.027)	(0.024)	(0.013)	(0.027)	(0.035)	(0.025)
N	983	983	979	980	978	979
Elections in the 2020s	0.075	-0.153***	0.085	-0.162		
	(0.053)	(0.051)	(0.053)	(0.109)		
N	331	312	270	222		

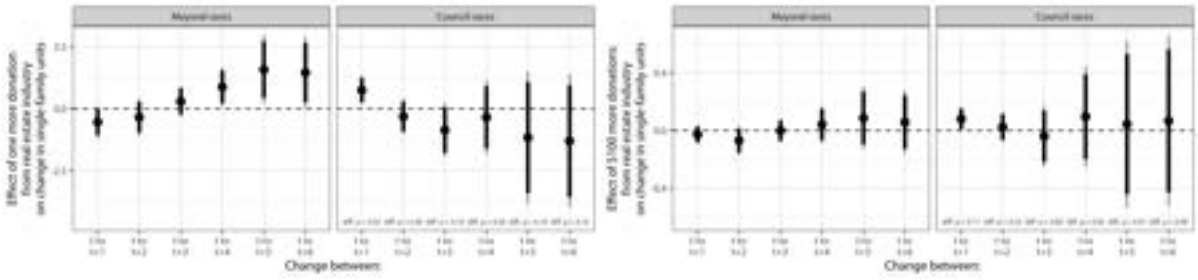
I Results Examining Differential Mayoral and Council Candidate Donation Effects

In this section, we run our analyses examining the impact of donations from real estate industry groups on housing permitting to candidates for both mayoral and council races to examine which type of races may be leading to these policy changes. The figures and tables below present results for donations to mayoral candidates and city council candidates, using models that match our main specifications except that they include both the number (or amount) of contributions to mayoral candidates and council candidates together in the models. These models also include an indicator for whether the city-year has any donations to mayoral candidates, and another for council candidates, ensuring that a year with no mayoral race isn't treated like a mayoral race with no real estate industry money. For each time horizon and outcome, we conduct a Wald test, within that one model, of whether the mayoral and council coefficients are equal, and print the p-value from this test at the bottom of the right panel in the figures and in the tables in each column below the relevant coefficients. We also present subset models in the bottom half of each panel of the tables, and these results are similar. Together, these analyses suggest that neither contributions to mayoral nor council candidates alone are driving our findings.



(a) Number of donations (b) Sum of donations

Figure A20: Effects of donations to mayoral and council candidates on total housing units permitted



(a) Number of donations (b) Sum of donations

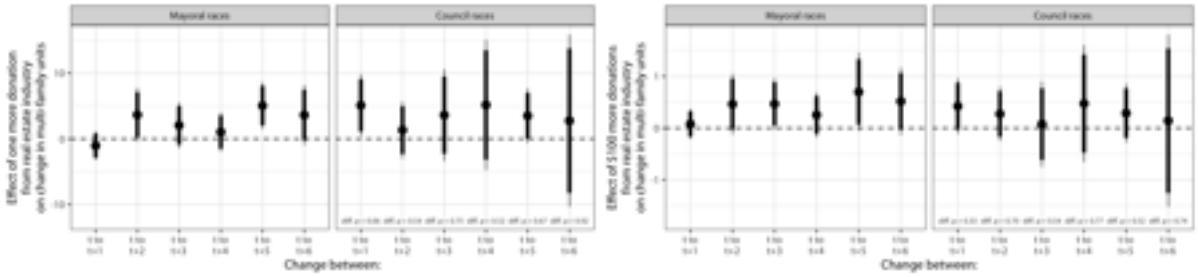
Figure A21: Effects of donations to mayoral and council candidates on single-family housing units permitted

Table A17: Results for mayoral and council contributions (effect of # donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Mayoral races	-1.569	3.314	2.351	1.904	6.631***	5.076*
	(1.338)	(2.275)	(1.958)	(1.826)	(2.298)	(2.905)
Council races	5.850**	1.011	2.747	4.814	2.355	1.458
	(2.465)	(2.426)	(4.058)	(5.379)	(2.722)	(7.385)
Difference p	0.028	0.578	0.944	0.678	0.366	0.716
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Mayoral races	4.145**	8.041***	6.080**	6.120***	7.425**	5.582**
	(1.943)	(2.521)	(2.371)	(2.255)	(2.924)	(2.647)
N	716	710	685	670	603	563
Council races	4.367*	3.837*	3.872	6.797	9.264***	6.735
	(2.281)	(2.075)	(3.164)	(4.119)	(1.593)	(5.049)
N	1,209	1,191	1,155	1,116	990	925
Multi-family units						
One model						
Mayoral races	-1.033	3.659*	2.056	1.027	5.054***	3.619
	(1.128)	(2.096)	(1.793)	(1.534)	(1.835)	(2.342)
Council races	5.100**	1.325	3.609	5.160	3.512*	2.759
	(2.423)	(2.207)	(3.575)	(5.067)	(2.119)	(6.687)
Difference p	0.058	0.541	0.753	0.521	0.668	0.922
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Mayoral races	3.483**	7.540***	5.535**	5.292**	6.261**	5.044**
	(1.710)	(2.483)	(2.349)	(2.125)	(2.621)	(2.508)
N	716	710	685	670	603	563
Council races	4.261**	4.684***	4.748	6.509	8.989***	6.718
	(2.160)	(1.779)	(2.932)	(4.086)	(1.581)	(4.985)
N	1,209	1,191	1,155	1,116	990	925
Single-family units						
One model						
Mayoral races	-0.537*	-0.344	0.295	0.877**	1.577**	1.457**
	(0.325)	(0.380)	(0.321)	(0.403)	(0.698)	(0.730)
Council races	0.750**	-0.313	-0.862	-0.346	-1.157	-1.301
	(0.298)	(0.369)	(0.558)	(0.766)	(1.364)	(1.373)
Difference p	0.021	0.964	0.183	0.282	0.180	0.185
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Mayoral races	0.662*	0.501**	0.545***	0.828***	1.164***	0.538*
	(0.348)	(0.248)	(0.201)	(0.260)	(0.339)	(0.274)
N	716	710	685	670	603	563
Council races	0.106	-0.846**	-0.876***	0.288	0.275	0.017
	(0.256)	(0.343)	(0.262)	(0.374)	(0.608)	(0.537)
N	1,209	1,191	1,155	1,116	990	925

Table A18: Results for mayoral and council contributions (effect of $ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Mayoral races	0.053	0.394	0.466*	0.295	0.787*	0.576
	(0.169)	(0.311)	(0.270)	(0.265)	(0.450)	(0.403)
Council races	0.504*	0.297	0.038	0.570	0.332	0.209
	(0.289)	(0.282)	(0.494)	(0.615)	(0.433)	(0.979)
Difference p	0.227	0.852	0.554	0.742	0.593	0.784
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Mayoral races	0.549*	0.999**	0.702**	0.716**	0.866*	0.695**
	(0.286)	(0.385)	(0.271)	(0.300)	(0.451)	(0.343)
N	716	710	685	670	603	563
Council races	0.543*	0.628**	0.326	0.840*	1.107***	0.682
	(0.292)	(0.294)	(0.320)	(0.452)	(0.318)	(0.601)
N	1,209	1,191	1,155	1,116	990	925
Multi-family units						
One model						
Mayoral races	0.080	0.464	0.467*	0.254	0.700*	0.518
	(0.150)	(0.299)	(0.254)	(0.223)	(0.385)	(0.333)
Council races	0.424	0.273	0.077	0.474	0.288	0.143
	(0.276)	(0.269)	(0.421)	(0.577)	(0.290)	(0.850)
Difference p	0.332	0.704	0.536	0.769	0.523	0.742
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Mayoral races	0.449*	0.926**	0.618**	0.617**	0.739*	0.644**
	(0.246)	(0.374)	(0.260)	(0.272)	(0.400)	(0.318)
N	716	710	685	670	603	563
Council races	0.505*	0.688**	0.405	0.748	1.020***	0.613
	(0.272)	(0.289)	(0.289)	(0.460)	(0.340)	(0.579)
N	1,209	1,191	1,155	1,116	990	925
Single-family units						
One model						
Mayoral races	-0.027	-0.070	-0.001	0.041	0.087	0.058
	(0.034)	(0.051)	(0.043)	(0.066)	(0.111)	(0.113)
Council races	0.081*	0.024	-0.039	0.096	0.044	0.067
	(0.043)	(0.054)	(0.108)	(0.178)	(0.295)	(0.301)
Difference p	0.105	0.332	0.797	0.819	0.914	0.984
N	1,503	1,484	1,438	1,391	1,241	1,167
Separate samples						
Mayoral races	0.100**	0.073**	0.084***	0.099**	0.127**	0.051
	(0.047)	(0.032)	(0.028)	(0.043)	(0.057)	(0.048)
N	716	710	685	670	603	563
Council races	0.038	-0.060	-0.079	0.091	0.087	0.069
	(0.035)	(0.055)	(0.071)	(0.104)	(0.157)	(0.152)
N	1,209	1,191	1,155	1,116	990	925



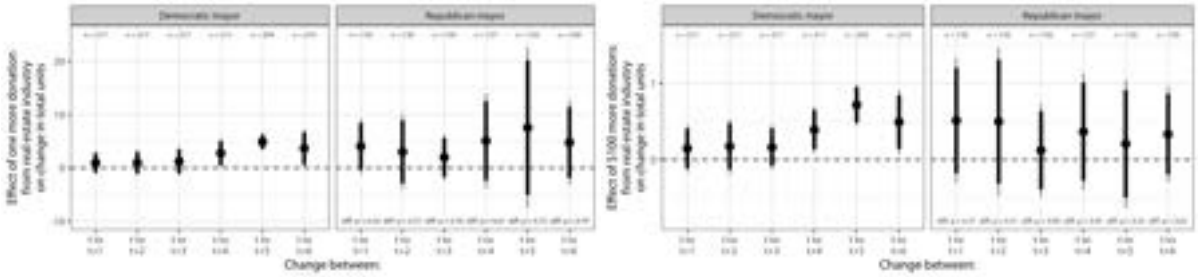
(a) Number of donations

(b) Sum of donations

Figure A22: Effects of donations to mayoral and council candidates on multi-family housing units permitted

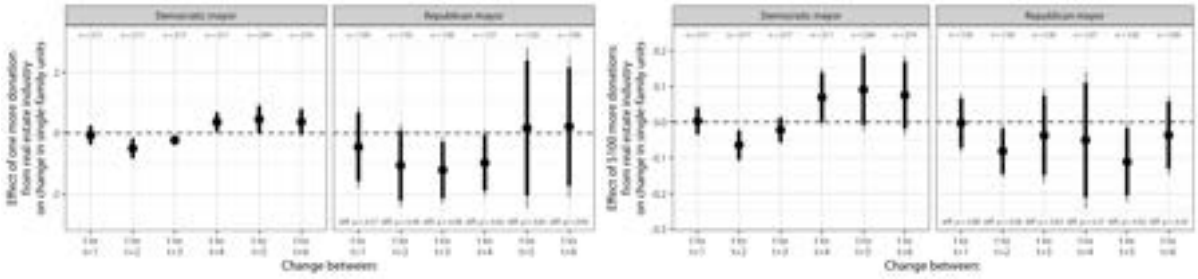
J Results by Mayoral Party

In this section, we run analyses of the impact of donations from real estate industry groups on housing permitting and examine heterogeneity in these effects between city-years with a Democratic mayor vs. a Republican mayor. These results indicate little heterogeneity in the results, but noisier estimates under Republican mayors, likely due to much smaller sample sizes.



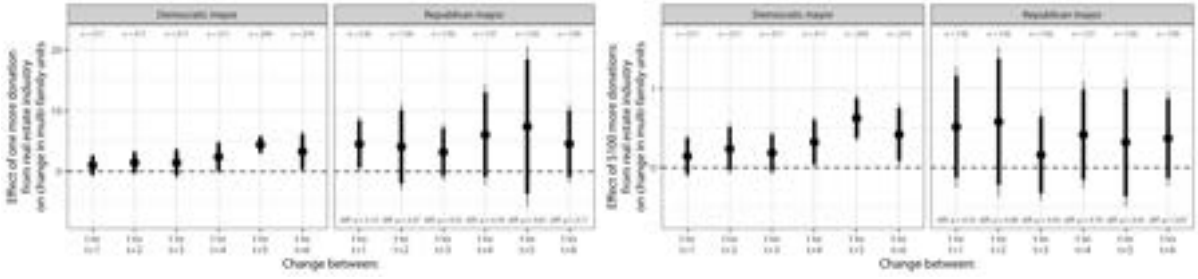
(a) Number of donations (b) Sum of donations

Figure A23: Effects of donations by mayoral party on total housing units permitted



(a) Number of donations (b) Sum of donations

Figure A24: Effects of donations by mayoral party on single-family housing units permitted



(a) Number of donations (b) Sum of donations

Figure A25: Effects of donations by mayoral party on multi-family housing units permitted

Table A19: Housing permits results, by mayoral party (# donations)

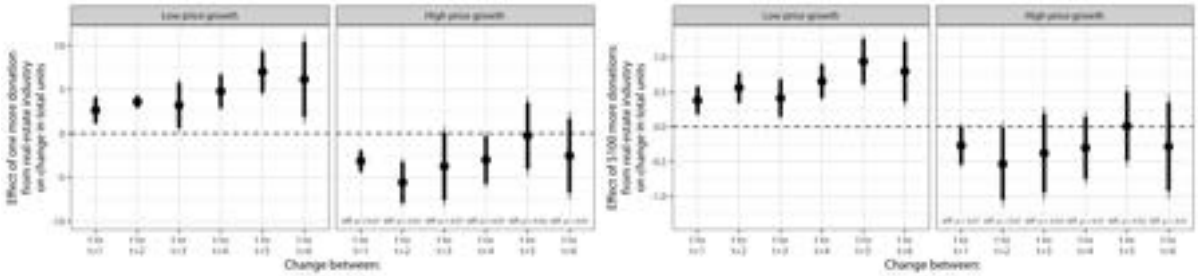
	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Democratic mayor	0.956	0.980	1.214	2.763**	4.877***	3.653**
	(1.103)	(1.229)	(1.363)	(1.383)	(0.820)	(1.839)
Republican mayor	4.052	3.009	1.970	5.066	7.555	4.761
	(2.656)	(3.589)	(2.211)	(4.525)	(7.660)	(4.032)
Difference p	0.242	0.568	0.757	0.614	0.725	0.789
N	447	447	447	438	414	383
N with a Republican mayor	130	130	130	127	120	109
One model, elections with a mayoral race						
Democratic mayor	2.728	6.219***	6.415**	5.495**	4.001*	3.934
	(1.754)	(1.695)	(2.899)	(2.378)	(2.172)	(3.719)
Republican mayor	0.975	1.178	-0.429	-3.255	-3.876	-1.398
	(2.431)	(3.399)	(2.625)	(2.775)	(3.206)	(2.458)
Difference p	0.522	0.184	0.086	0.017	0.036	0.196
N	258	258	258	258	243	224
N with a Republican mayor	74	74	74	74	69	64
Separate samples						
Democratic mayor	0.128	0.309	0.888	2.587	5.154***	3.607
	(1.605)	(2.483)	(2.196)	(2.202)	(1.274)	(2.691)
N	317	317	317	311	294	274
Republican mayor	0.797	-3.573	1.689	-2.140	-1.517	0.646
	(3.668)	(5.183)	(3.594)	(5.290)	(8.247)	(6.673)
N	130	130	130	127	120	109
Multi-family units						
One model						
Democratic mayor	1.023	1.483	1.447	2.400*	4.422***	3.283*
	(0.982)	(1.063)	(1.314)	(1.411)	(0.832)	(1.761)
Republican mayor	4.506*	4.075	3.185	6.042	7.388	4.548
	(2.355)	(3.648)	(2.394)	(4.227)	(6.723)	(3.338)
Difference p	0.140	0.474	0.519	0.394	0.655	0.710
N	447	447	447	438	414	383
N with a Republican mayor	130	130	130	127	120	109
One model, elections with a mayoral race						
Democratic mayor	2.511	5.996***	5.828**	4.798**	3.282*	3.098
	(1.670)	(1.691)	(2.864)	(2.276)	(1.954)	(3.525)
Republican mayor	2.829	3.016	0.551	-1.866	-2.364	0.784
	(2.386)	(3.188)	(2.709)	(2.168)	(2.590)	(2.511)
Difference p	0.906	0.409	0.190	0.032	0.065	0.568
N	258	258	258	258	243	224
N with a Republican mayor	74	74	74	74	69	64
Separate samples						
Democratic mayor	0.364	1.042	1.377	2.218	4.643***	3.241
	(1.404)	(2.113)	(2.051)	(2.186)	(1.113)	(2.551)
N	317	317	317	311	294	274
Republican mayor	2.983	-1.012	2.860	-1.108	-4.001	-1.339
	(5.004)	(6.874)	(4.106)	(5.349)	(5.991)	(4.309)
N	130	130	130	127	120	109
Single-family units						
One model						
Democratic mayor	-0.067	-0.503***	-0.233**	0.363*	0.455*	0.370
	(0.182)	(0.193)	(0.091)	(0.188)	(0.266)	(0.248)
Republican mayor	-0.454	-1.065	-1.215**	-0.976*	0.167	0.213
	(0.686)	(0.702)	(0.565)	(0.558)	(1.350)	(1.186)
Difference p	0.566	0.440	0.081	0.020	0.834	0.896
N	447	447	447	438	414	383
N with a Republican mayor	130	130	130	127	120	109
One model, elections with a mayoral race						
Democratic mayor	0.217	0.223	0.587**	0.697**	0.719*	0.836**
	(0.216)	(0.185)	(0.260)	(0.282)	(0.378)	(0.410)
Republican mayor	-1.854	-1.838	-0.980**	-1.389	-1.512	-2.183***
	(1.257)	(1.212)	(0.454)	(1.044)	(1.462)	(0.737)
Difference p	0.104	0.092	0.002	0.058	0.140	0.001
N	258	258	258	258	243	224
N with a Republican mayor	74	74	74	74	69	64
Separate samples						
Democratic mayor	-0.236	-0.732*	-0.489***	0.369	0.511	0.367
	(0.267)	(0.388)	(0.182)	(0.231)	(0.362)	(0.336)
N	317	317	317	311	294	274
Republican mayor	-2.186	-2.561	-1.172	-1.032	2.484	1.985
	(1.895)	(2.037)	(1.176)	(0.951)	(2.337)	(2.866)
N	130	130	130	127	120	109

Table A20: Housing permits results, by mayoral party ($ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model						
Democratic mayor	0.148	0.173	0.163	0.392**	0.717***	0.493**
	(0.159)	(0.185)	(0.150)	(0.156)	(0.140)	(0.214)
Republican mayor	0.512	0.499	0.123	0.366	0.208	0.333
	(0.419)	(0.495)	(0.311)	(0.390)	(0.427)	(0.320)
Difference p	0.368	0.509	0.902	0.947	0.237	0.621
N	447	447	447	438	414	383
N with a Republican mayor	130	130	130	127	120	109
One model, elections with a mayoral race						
Democratic mayor	0.356	0.814***	0.776**	0.689**	0.496	0.431
	(0.234)	(0.257)	(0.321)	(0.298)	(0.309)	(0.479)
Republican mayor	0.498	0.633	0.111	-0.017	-0.207	0.067
	(0.430)	(0.621)	(0.325)	(0.335)	(0.255)	(0.270)
Difference p	0.754	0.781	0.111	0.088	0.050	0.435
N	258	258	258	258	243	224
N with a Republican mayor	74	74	74	74	69	64
Separate samples						
Democratic mayor	0.004	0.056	0.110	0.349	0.732***	0.435
	(0.215)	(0.354)	(0.272)	(0.263)	(0.150)	(0.326)
N	317	317	317	311	294	274
Republican mayor	0.814	0.537	0.287	0.486	-0.066	0.168
	(0.641)	(0.721)	(0.498)	(0.634)	(0.473)	(0.275)
N	130	130	130	127	120	109
Multi-family units						
One model						
Democratic mayor	0.144	0.238	0.185	0.322*	0.626***	0.418**
	(0.140)	(0.166)	(0.141)	(0.171)	(0.153)	(0.203)
Republican mayor	0.514	0.580	0.160	0.417	0.319	0.370
	(0.392)	(0.487)	(0.295)	(0.346)	(0.417)	(0.306)
Difference p	0.329	0.476	0.935	0.781	0.453	0.869
N	447	447	447	438	414	383
N with a Republican mayor	130	130	130	127	120	109
One model, elections with a mayoral race						
Democratic mayor	0.309	0.768***	0.689**	0.586**	0.384	0.289
	(0.215)	(0.249)	(0.307)	(0.276)	(0.272)	(0.445)
Republican mayor	0.539	0.722	0.122	0.028	-0.045	0.197
	(0.402)	(0.599)	(0.294)	(0.241)	(0.277)	(0.308)
Difference p	0.588	0.941	0.143	0.086	0.211	0.846
N	258	258	258	258	243	224
N with a Republican mayor	74	74	74	74	69	64
Separate samples						
Democratic mayor	0.027	0.154	0.170	0.278	0.631***	0.365
	(0.183)	(0.301)	(0.246)	(0.268)	(0.129)	(0.305)
N	317	317	317	311	294	274
Republican mayor	0.726	0.592	0.056	0.315	-0.164	0.045
	(0.575)	(0.690)	(0.381)	(0.400)	(0.418)	(0.290)
N	130	130	130	127	120	109
Single-family units						
One model						
Democratic mayor	0.004	-0.064***	-0.022	0.070*	0.091	0.075
	(0.022)	(0.025)	(0.021)	(0.042)	(0.060)	(0.057)
Republican mayor	-0.003	-0.081**	-0.037	-0.050	-0.111*	-0.036
	(0.042)	(0.039)	(0.068)	(0.098)	(0.057)	(0.057)
Difference p	0.884	0.680	0.830	0.271	0.022	0.202
N	447	447	447	438	414	383
N with a Republican mayor	130	130	130	127	120	109
One model, elections with a mayoral race						
Democratic mayor	0.047	0.046*	0.087**	0.103*	0.112	0.142*
	(0.032)	(0.027)	(0.043)	(0.057)	(0.074)	(0.086)
Republican mayor	-0.040	-0.089*	-0.011	-0.045	-0.162**	-0.130**
	(0.044)	(0.052)	(0.078)	(0.146)	(0.069)	(0.066)
Difference p	0.085	0.017	0.255	0.355	0.011	0.019
N	258	258	258	258	243	224
N with a Republican mayor	74	74	74	74	69	64
Separate samples						
Democratic mayor	-0.023	-0.098*	-0.060*	0.071	0.101	0.071
	(0.038)	(0.055)	(0.033)	(0.049)	(0.074)	(0.067)
N	317	317	317	311	294	274
Republican mayor	0.087	-0.054	0.232	0.171	0.098	0.123
	(0.110)	(0.087)	(0.172)	(0.293)	(0.078)	(0.105)
N	130	130	130	127	120	109

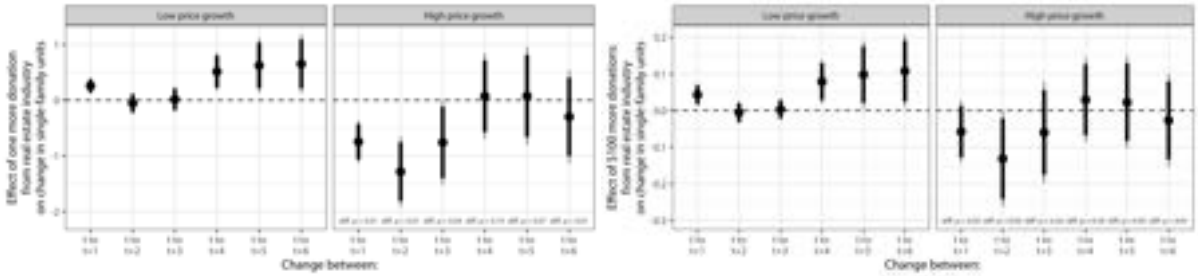
K Results by Pre-Election Price Growth

In this section, we examine the differential impact of donations from real estate industry groups on housing permitting in places with lower and higher pre-election housing price growth, as measured by the Zillow Home Value Index (ZHVI). We conduct these analyses in several different ways: (1) we regress our housing outcomes on the number or total sum of real estate industry donations interacted with an indicator for low/high growth in a pooled model; (2) in a pooled model with a continuous interaction for percentage points of pre-election growth; and (3) in subset models for city-years above and below the median levels of price growth in the full sample of cities. The figures and tables below present these results, and indicate that the effects of donations from the real estate industry appear to be larger in city-years with lower levels of pre-election price growth. This may, of course, be confounded by time period effects, which we showed in Appendix H.



(a) Number of donations (b) Sum of donations

Figure A26: Effects of donations in low- and high-growth city-years on total housing units permitted



(a) Number of donations (b) Sum of donations

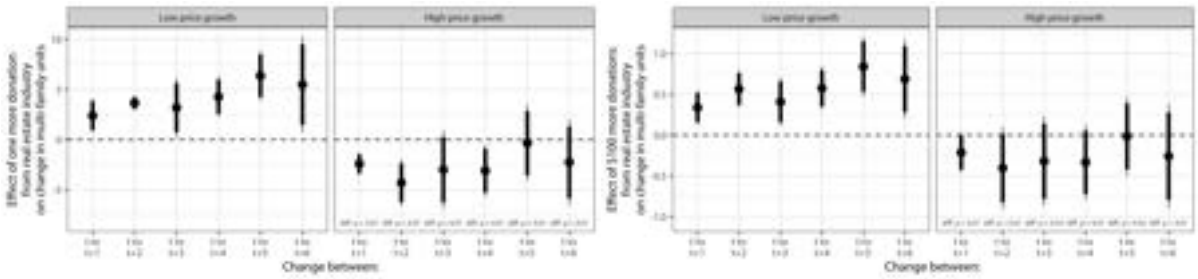
Figure A27: Effects of donations in low- and high-growth city-years on single-family housing units permitted

Table A21: Housing permits results, by price growth (# donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model, median split						
Low price growth	2.654***	3.600***	3.204**	4.795***	6.995***	6.141**
	(0.896)	(0.421)	(1.565)	(1.143)	(1.428)	(2.600)
High price growth	-3.157***	-5.567***	-3.745	-3.007*	-0.269	-2.546
	(0.732)	(1.417)	(2.344)	(1.648)	(2.299)	(2.569)
Difference p	0.000	0.000	0.007	0.000	0.015	0.001
N	1,201	1,202	1,198	1,199	1,196	1,122
One model, continuous growth						
RE donations	3.483**	4.224***	4.240**	6.899***	10.044***	10.210***
	(1.356)	(1.155)	(2.101)	(1.688)	(2.029)	(2.849)
RE donations × growth (10 pp)	-1.612***	-2.110***	-1.945**	-2.769***	-3.253***	-4.164***
	(0.492)	(0.405)	(0.934)	(0.820)	(1.187)	(1.172)
N	1,201	1,202	1,198	1,199	1,196	1,122
Separate samples						
Low price growth	2.379***	2.083***	-0.872*	-0.054	1.497	-0.900
	(0.826)	(0.457)	(0.504)	(0.416)	(1.136)	(1.097)
N	696	696	695	695	693	661
High price growth	-2.894***	-5.516***	-0.939	0.261	4.066**	3.822**
	(0.919)	(1.170)	(1.713)	(0.844)	(1.918)	(1.527)
N	505	506	503	504	503	461
Multi-family units						
One model, median split						
Low price growth	2.396***	3.656***	3.187**	4.281***	6.370***	5.488**
	(0.873)	(0.363)	(1.481)	(1.036)	(1.286)	(2.436)
High price growth	-2.411***	-4.284***	-2.987	-3.080**	-0.345	-2.248
	(0.578)	(1.175)	(1.984)	(1.332)	(1.943)	(2.174)
Difference p	0.000	0.000	0.007	0.000	0.014	0.001
N	1,201	1,202	1,198	1,199	1,196	1,122
One model, continuous growth						
RE donations	3.190**	4.288***	4.214**	6.218***	9.030***	9.108***
	(1.289)	(1.043)	(1.960)	(1.597)	(1.958)	(2.773)
RE donations × growth (10 pp)	-1.403***	-1.884***	-1.793**	-2.582***	-2.909***	-3.708***
	(0.479)	(0.365)	(0.845)	(0.735)	(1.100)	(1.124)
N	1,201	1,202	1,198	1,199	1,196	1,122
Separate samples						
Low price growth	2.145***	2.266***	-0.760	-0.221	1.171	-1.043
	(0.787)	(0.384)	(0.550)	(0.442)	(0.969)	(1.074)
N	696	696	695	695	693	661
High price growth	-2.130***	-4.130***	-0.276	-0.046	3.882**	3.823***
	(0.776)	(0.984)	(1.439)	(0.702)	(1.836)	(1.455)
N	505	506	503	504	503	461
Single-family units						
One model, median split						
Low price growth	0.258***	-0.056	0.016	0.514***	0.626**	0.653**
	(0.073)	(0.099)	(0.118)	(0.175)	(0.250)	(0.268)
High price growth	-0.746***	-1.283***	-0.758*	0.073	0.077	-0.298
	(0.194)	(0.322)	(0.391)	(0.392)	(0.449)	(0.428)
Difference p	0.000	0.000	0.038	0.187	0.067	0.000
N	1,201	1,202	1,198	1,199	1,196	1,122
One model, continuous growth						
RE donations	0.293	-0.063	0.027	0.682***	1.014***	1.102***
	(0.182)	(0.162)	(0.185)	(0.217)	(0.290)	(0.281)
RE donations × growth (10 pp)	-0.209***	-0.226***	-0.151	-0.187*	-0.345***	-0.456***
	(0.052)	(0.058)	(0.102)	(0.111)	(0.104)	(0.085)
N	1,201	1,202	1,198	1,199	1,196	1,122
Separate samples						
Low price growth	0.233***	-0.183	-0.112	0.167	0.326	0.143
	(0.065)	(0.143)	(0.093)	(0.150)	(0.219)	(0.129)
N	696	696	695	695	693	661
High price growth	-0.764***	-1.386***	-0.663	0.308	0.184	-0.000
	(0.194)	(0.305)	(0.418)	(0.404)	(0.451)	(0.370)
N	505	506	503	504	503	461

Table A22: Housing permits results, by price growth ($ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units						
One model, median split						
Low price growth	0.380***	0.561***	0.412**	0.655***	0.939***	0.796***
	(0.120)	(0.128)	(0.162)	(0.145)	(0.197)	(0.264)
High price growth	-0.270	-0.534*	-0.380	-0.304	0.008	-0.285
	(0.166)	(0.315)	(0.346)	(0.272)	(0.301)	(0.386)
Difference p	0.001	0.004	0.040	0.005	0.022	0.004
N	1,201	1,202	1,198	1,199	1,196	1,122
One model, continuous growth						
RE donations	0.512**	0.654**	0.536*	0.916***	1.298***	1.334***
	(0.227)	(0.292)	(0.295)	(0.344)	(0.427)	(0.437)
RE donations × growth (10 pp)	-0.227**	-0.300**	-0.253	-0.377**	-0.433*	-0.584**
	(0.093)	(0.124)	(0.171)	(0.186)	(0.246)	(0.261)
N	1,201	1,202	1,198	1,199	1,196	1,122
Separate samples						
Low price growth	0.313**	0.288***	-0.142**	-0.033	0.164	-0.143
	(0.146)	(0.107)	(0.067)	(0.062)	(0.186)	(0.159)
N	696	696	695	695	693	661
High price growth	-0.254	-0.551*	0.030	0.216	0.757**	0.665**
	(0.184)	(0.283)	(0.268)	(0.160)	(0.321)	(0.262)
N	505	506	503	504	503	461
Multi-family units						
One model, median split						
Low price growth	0.337***	0.567***	0.409***	0.576***	0.841***	0.688***
	(0.109)	(0.118)	(0.153)	(0.136)	(0.188)	(0.246)
High price growth	-0.212*	-0.403	-0.320	-0.333	-0.014	-0.258
	(0.128)	(0.255)	(0.281)	(0.237)	(0.247)	(0.327)
Difference p	0.000	0.003	0.026	0.003	0.021	0.006
N	1,201	1,202	1,198	1,199	1,196	1,122
One model, continuous growth						
RE donations	0.462**	0.662**	0.537**	0.815**	1.139***	1.150***
	(0.200)	(0.265)	(0.270)	(0.335)	(0.429)	(0.443)
RE donations × growth (10 pp)	-0.201**	-0.273**	-0.241	-0.352**	-0.377	-0.505**
	(0.082)	(0.109)	(0.149)	(0.171)	(0.232)	(0.252)
N	1,201	1,202	1,198	1,199	1,196	1,122
Separate samples						
Low price growth	0.282**	0.320***	-0.117	-0.048	0.127	-0.159
	(0.136)	(0.096)	(0.071)	(0.062)	(0.150)	(0.161)
N	696	696	695	695	693	661
High price growth	-0.194	-0.405*	0.059	0.112	0.685**	0.622**
	(0.149)	(0.219)	(0.211)	(0.126)	(0.314)	(0.253)
N	505	506	503	504	503	461
Single-family units						
One model, median split						
Low price growth	0.043***	-0.006	0.003	0.079***	0.098**	0.108**
	(0.016)	(0.016)	(0.015)	(0.031)	(0.047)	(0.051)
High price growth	-0.058	-0.131**	-0.060	0.029	0.022	-0.027
	(0.043)	(0.067)	(0.070)	(0.059)	(0.064)	(0.065)
Difference p	0.034	0.051	0.355	0.292	0.054	0.000
N	1,201	1,202	1,198	1,199	1,196	1,122
One model, continuous growth						
RE donations	0.050	-0.008	-0.000	0.101***	0.159***	0.184***
	(0.035)	(0.033)	(0.031)	(0.034)	(0.048)	(0.048)
RE donations × growth (10 pp)	-0.027*	-0.026	-0.012	-0.025	-0.056***	-0.079***
	(0.016)	(0.016)	(0.024)	(0.020)	(0.017)	(0.015)
N	1,201	1,202	1,198	1,199	1,196	1,122
Separate samples						
Low price growth	0.031**	-0.032	-0.024	0.015	0.038	0.016
	(0.014)	(0.022)	(0.017)	(0.033)	(0.046)	(0.026)
N	696	696	695	695	693	661
High price growth	-0.060	-0.146*	-0.030	0.104	0.071	0.043
	(0.043)	(0.077)	(0.089)	(0.073)	(0.075)	(0.067)
N	505	506	503	504	503	461



(a) Number of donations

(b) Sum of donations

Figure A28: Effects of donations in low- and high-growth city-years on multi-family housing units permitted

L Zoning Restrictiveness and the Effects of Real Estate Industry Donations

In this section, we present tabular versions of the analyses presented in Figure 10 in the main text of the paper, as well as analyses using the outcomes of total housing units permitted and single-family units permitted. In addition, we present analyses separately analyzing the moderation of our effects by zoning restrictiveness in smaller (below median population) cities and larger (above median population) cities, as well as the subset effects only among extra-large cities (100,000 or more population) in Figure A30.

Table A23: **Effects of number of donations on total housing units permitted, by zoning restrictiveness.** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

Change in total units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	-3.321*	1.811*	-1.347	2.497**	0.459	2.730**	-1.601	3.461**	-5.946**	5.469***	-8.385***	4.008*
	(1.691)	(1.011)	(2.199)	(1.202)	(1.500)	(1.372)	(2.705)	(1.565)	(2.508)	(0.780)	(2.734)	(2.062)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	553	665	546	657	522	647	501	629	432	580	412	539
Difference, high − low		5.133		3.844		2.271		5.061		11.415		12.394
(SE)		(1.970)		(2.506)		(2.033)		(3.125)		(2.626)		(3.425)
p-value		0.009		0.125		0.264		0.105		0.000		0.000

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A24: **Effects of donations on total housing units permitted, by zoning restrictiveness.** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

Change in total units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
Real estate industry donations ($100s)	-0.482**	0.271**	-0.058	0.388**	0.202	0.336**	-0.194	0.463***	-0.692*	0.737***	-0.918**	0.503**
	(0.229)	(0.133)	(0.267)	(0.176)	(0.181)	(0.130)	(0.370)	(0.160)	(0.371)	(0.127)	(0.459)	(0.218)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	553	665	546	657	522	647	501	629	432	580	412	539
Difference, high − low		0.754		0.446		0.135		0.656		1.429		1.421
(SE)		(0.265)		(0.320)		(0.223)		(0.403)		(0.392)		(0.508)
p-value		0.004		0.163		0.546		0.104		0.000		0.005

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A25: **Effects of number of donations on single-family housing units permitted, by zoning restrictiveness.** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

Change in single-family units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	-1.861**	0.040	-2.510	-0.358**	-1.644	-0.200**	-3.392	0.444**	-1.779	0.501**	-2.140	0.383*
	(0.730)	(0.152)	(1.560)	(0.179)	(1.256)	(0.084)	(2.552)	(0.175)	(1.968)	(0.241)	(1.657)	(0.211)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	553	665	546	657	522	647	501	629	432	580	412	539
Difference, high − low		1.901		2.152		1.444		3.836		2.280		2.523
(SE)		(0.746)		(1.570)		(1.259)		(2.558)		(1.983)		(1.670)
p-value		0.011		0.170		0.252		0.134		0.250		0.131

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A26: **Effects of donations on single-family housing units permitted, by zoning restrictiveness.** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

Change in single-family units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
Real estate industry donations ($100s)	-0.142*	0.017	-0.083	-0.047**	-0.086	-0.020	-0.361	0.073**	-0.228	0.082*	-0.197	0.065
	(0.085)	(0.018)	(0.142)	(0.021)	(0.108)	(0.020)	(0.287)	(0.036)	(0.203)	(0.048)	(0.211)	(0.045)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	553	665	546	657	522	647	501	629	432	580	412	539
Difference, high − low		0.159		0.036		0.066		0.434		0.310		0.262
(SE)		(0.087)		(0.143)		(0.109)		(0.290)		(0.209)		(0.215)
p-value		0.068		0.802		0.548		0.134		0.138		0.223

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A27: **Effects of number of donations on multi-family housing units permitted, by zoning restrictiveness.** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

Change in multi-family units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
# donations from real estate industry	-1.461	1.771*	1.164	2.855***	2.103	2.930**	1.792	3.017*	-4.168***	4.968***	-6.245***	3.626*
	(1.160)	(0.916)	(1.067)	(1.043)	(1.573)	(1.319)	(1.555)	(1.553)	(1.553)	(0.766)	(1.646)	(1.981)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	553	665	546	657	522	647	501	629	432	580	412	539
Difference, high − low		3.232		1.692		0.827		1.225		9.135		9.871
(SE)		(1.478)		(1.492)		(2.053)		(2.197)		(1.732)		(2.576)
p-value		0.029		0.257		0.687		0.577		0.000		0.000

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A28: **Effects of donations on multi-family housing units permitted, by zoning restrictiveness.** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

Change in multi-family units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
Real estate industry donations ($100s)	-0.341**	0.254**	0.025	0.435***	0.287	0.356***	0.167	0.390**	-0.464*	0.655***	-0.721**	0.438**
	(0.166)	(0.119)	(0.184)	(0.159)	(0.189)	(0.124)	(0.236)	(0.167)	(0.259)	(0.134)	(0.306)	(0.209)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	553	665	546	657	522	647	501	629	432	580	412	539
Difference, high − low		0.595		0.410		0.069		0.223		1.119		1.159
(SE)		(0.204)		(0.243)		(0.226)		(0.289)		(0.292)		(0.370)
p-value		0.004		0.092		0.760		0.442		0.000		0.002

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A29: **Housing permits results by zoning restrictiveness, small cities (population under 24,572).** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

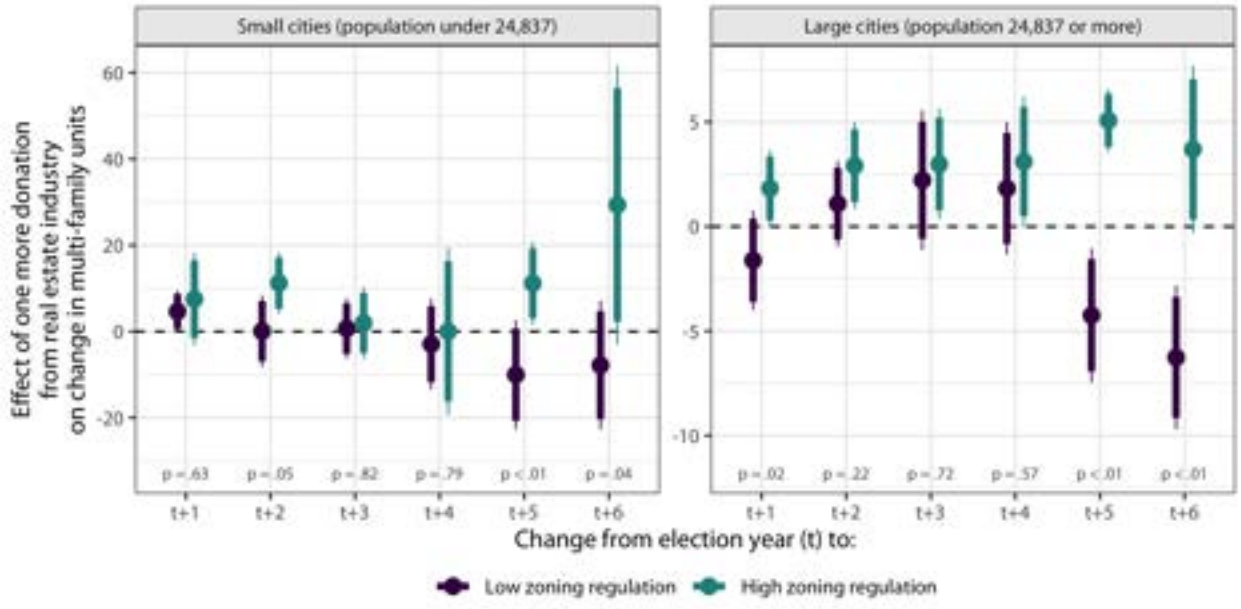
Change in multi-family units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
Real estate industry donations ($100s)	0.049	0.961	0.841	0.955	-0.413	-0.141	-0.748	0.756	-2.908**	2.031***	-2.893*	5.483
	(0.632)	(1.115)	(0.578)	(1.172)	(0.470)	(0.851)	(1.245)	(1.858)	(1.234)	(0.681)	(1.731)	(3.521)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	258	152	254	153	241	149	230	149	190	127	179	125
Difference, high − low		0.912		0.115		0.271		1.505		4.939		8.375
(SE)		(1.282)		(1.307)		(0.973)		(2.237)		(1.410)		(3.923)
p-value		0.477		0.930		0.780		0.501		0.000		0.033

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

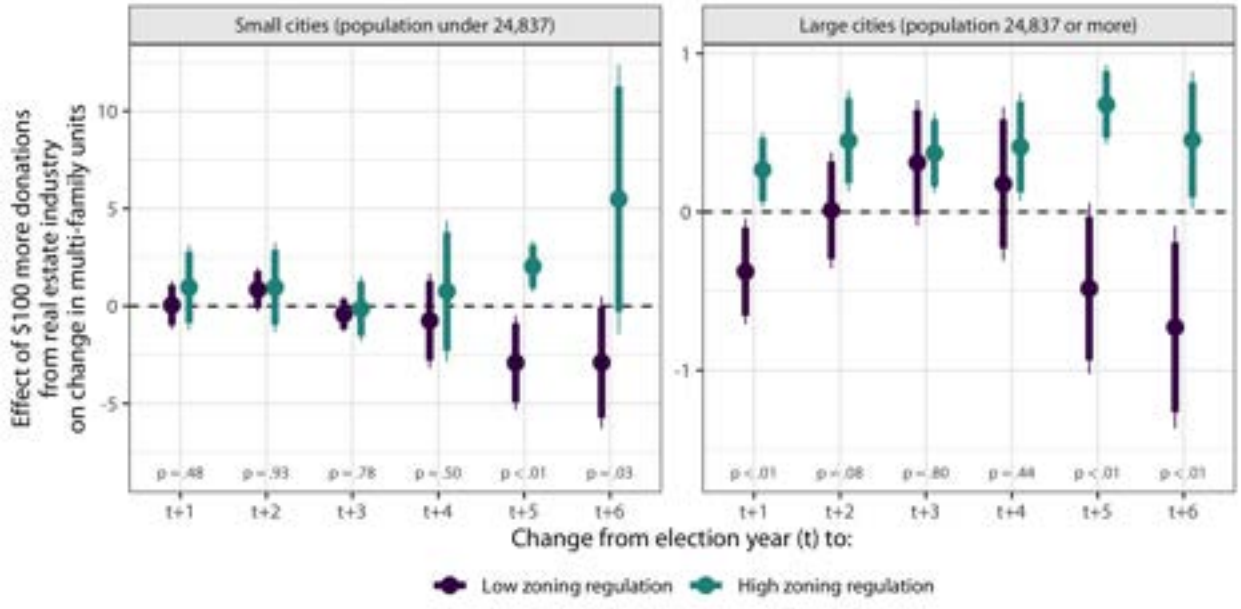
Table A30: **Housing permits results by zoning restrictiveness, large cities (population 24,572 or more).** Each column is estimated separately within the subset; p-values for the difference between high- and low-regulation cities are from z-tests (Clogg, Petkova & Haritou 1995).

Change in multi-family units permitted from election year (t) to:	t+1		t+2		t+3		t+4		t+5		t+6	
Zoning regulation:	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Variables												
Real estate industry donations ($100s)	-0.376**	0.266**	0.010	0.449***	0.311	0.371***	0.177	0.411**	-0.483*	0.678***	-0.728**	0.454**
	(0.170)	(0.122)	(0.187)	(0.163)	(0.203)	(0.129)	(0.248)	(0.174)	(0.276)	(0.129)	(0.326)	(0.221)
Fixed-effects												
City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics												
Observations	295	513	292	504	281	498	271	480	242	453	233	414
Difference, high − low		0.643		0.439		0.060		0.234		1.161		1.183
(SE)		(0.209)		(0.249)		(0.241)		(0.303)		(0.304)		(0.394)
p-value		0.002		0.078		0.802		0.439		0.000		0.003

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

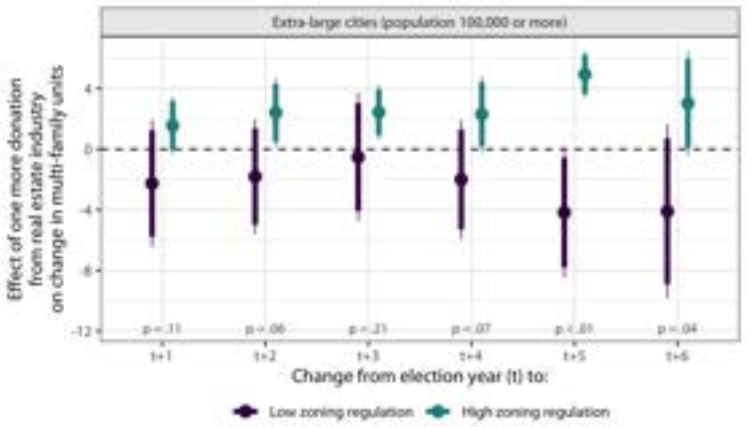


(a) Number of donations

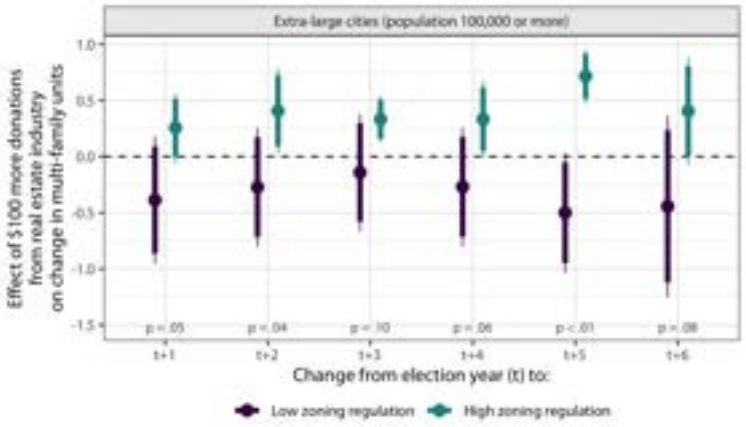


(b) Sum of donations

Figure A29: Effects of donations on multi-family units permitted, by zoning restrictiveness and city size



(a) Number of donations

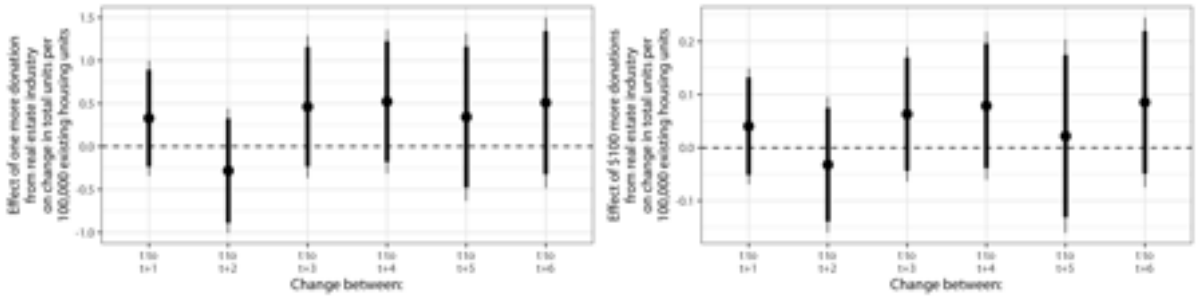


(b) Sum of donations

Figure A30: Effects of donations on multi-family units permitted, by zoning restrictiveness, in cities of 100,000 or more residents. Zoning regulation split at the median Bartik, Gupta & Milo index among these cities

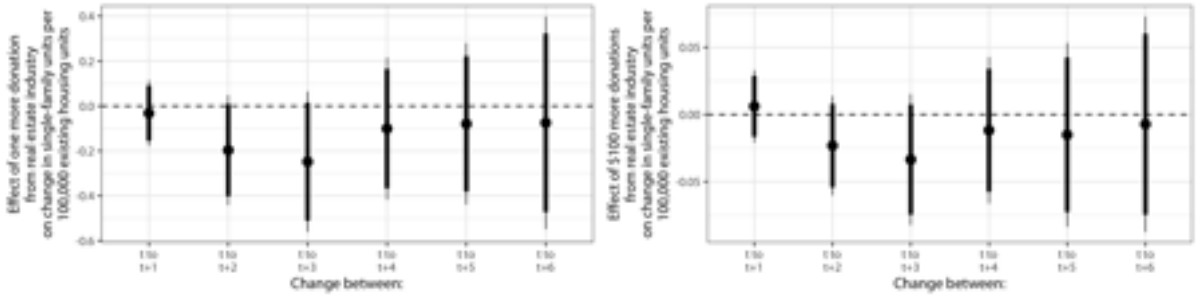
M Effects on Housing Permits Relative to Existing Housing Stock

Our main analyses measure permitting outcomes in raw numbers of total, single-family, and multi-family units. This weights our results towards the large cities that permit the most housing and receive the most real estate industry contributions. In this section, we instead measure outcomes relative to each city's existing housing stock. We divide the change in units permitted between the election year (t) and each following year by the city's total number of housing units using data from the Census Bureau's American Community Survey, and express the result as units permitted per 100,000 existing housing units. The denominator (housing units) is measured in a single ACS cross-sectional 5-year estimate from 2019–2023 for each city. We estimate the same models as in the main text, with city and state-year fixed effects and standard errors clustered by city. Figures A31, A32, and A33 present the effects on total, single-family, and multi-family units, and Tables A31 and A32 present the corresponding estimates in tabular form. The estimates for total and multi-family units are positive at most horizons but are statistically distinguishable from zero only for multi-family units three years after the election ($p < 0.1$). Overall, these results indicate that one additional real estate industry contribution corresponds to roughly 0.6 additional multi-family units per 100,000 existing housing units four years after the election, or less than one-thousandth of one percent of a city's housing stock.



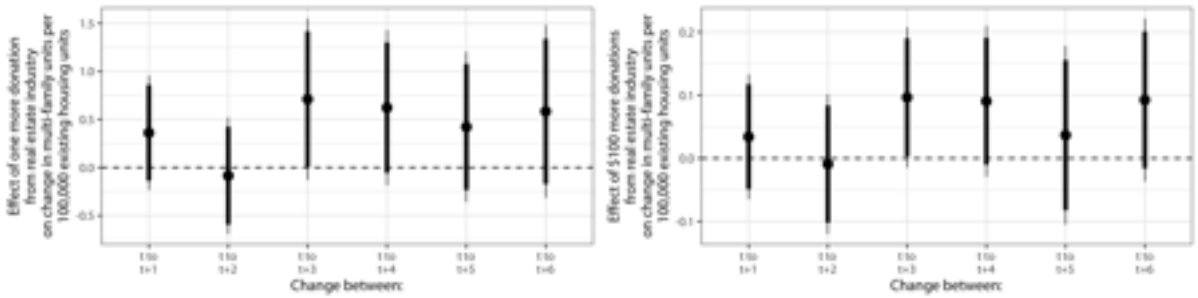
(a) Number of donations (b) Sum of donations

Figure A31: Effects of donations on total units permitted per 100,000 existing housing units



(a) Number of donations (b) Sum of donations

Figure A32: Effects of donations on single-family units permitted per 100,000 existing housing units



(a) Number of donations (b) Sum of donations

Figure A33: Effects of donations on multi-family units permitted per 100,000 existing housing units

Table A31: Housing permits per 100,000 existing housing units (# donations)

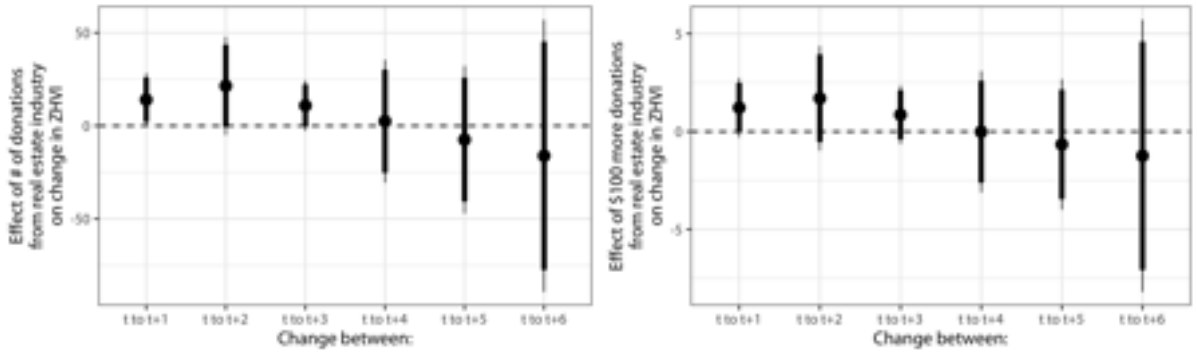
	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units per 100,000 existing units						
# donations from real estate industry	0.329	-0.282	0.463	0.522	0.343	0.509
	(0.343)	(0.369)	(0.423)	(0.427)	(0.498)	(0.506)
N	1,503	1,484	1,438	1,391	1,241	1,167
Single-family units per 100,000 existing units						
# donations from real estate industry	-0.032	-0.197	-0.248	-0.101	-0.079	-0.075
	(0.075)	(0.125)	(0.160)	(0.162)	(0.184)	(0.242)
N	1,503	1,484	1,438	1,391	1,241	1,167
Multi-family units per 100,000 existing units						
# donations from real estate industry	0.361	-0.085	0.711*	0.623	0.422	0.584
	(0.303)	(0.309)	(0.429)	(0.413)	(0.399)	(0.459)
N	1,503	1,484	1,438	1,391	1,241	1,167

Table A32: Housing permits per 100,000 existing housing units ($ donations)

	t to $t+1$	t to $t+2$	t to $t+3$	t to $t+4$	t to $t+5$	t to $t+6$
Total units per 100,000 existing units						
Real estate industry donations ($100s)	0.040	-0.032	0.063	0.079	0.022	0.085
	(0.056)	(0.065)	(0.065)	(0.071)	(0.093)	(0.082)
N	1,503	1,484	1,438	1,391	1,241	1,167
Single-family units per 100,000 existing units						
Real estate industry donations ($100s)	0.006	-0.023	-0.034	-0.012	-0.015	-0.007
	(0.014)	(0.019)	(0.025)	(0.028)	(0.035)	(0.041)
N	1,503	1,484	1,438	1,391	1,241	1,167
Multi-family units per 100,000 existing units						
Real estate industry donations ($100s)	0.034	-0.009	0.097*	0.091	0.037	0.093
	(0.050)	(0.056)	(0.057)	(0.061)	(0.072)	(0.066)
N	1,503	1,484	1,438	1,391	1,241	1,167

N Effects of Real Estate Industry Donations on Housing Prices and Rent

In this section, we examine the impact of donations from real estate industry groups on downstream housing market outcomes – namely, housing prices and rent. To do so, we measure housing prices using the Zillow Home Value Index (ZHVI), an industry standard dynamic measure of the average home price in a locality. The results of these analyses are shown in Figure A34 and Table A33, and indicate that industry contributions appear to have no effect on housing prices in the timeline in which we assess our main effects. Similarly, our analyses of contributions' effects on rent prices (using data from the ACS 1-year estimates from 2006-2023, adjusted for inflation to match values in 2022), shown in Figure A35 and Table A34, indicate no effects on rental prices.



(a) Number of donations

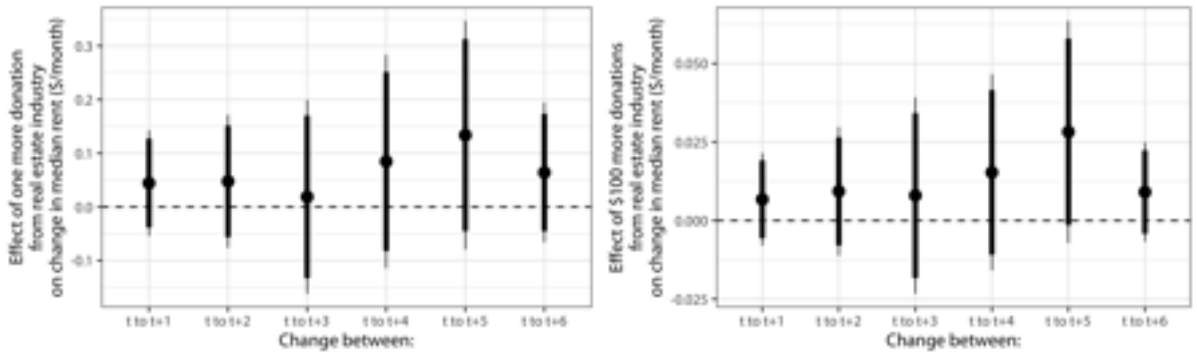
(b) Sum of donations

Figure A34: Effects of donations on Zillow Home Value Index

Table A33: Zillow Home Value Index results

	Δ between election year and t+4 in:			
Dependent Variables:	ZHVI		Logged ZHVI	
Model:	(1)	(2)	(3)	(4)
Variables				
# donations from real estate industry	-13.853		0.000	
	(15.824)		(0.000)	
Real estate industry donations ($100s)		-3.505		0.000
		(3.229)		(0.000)
Fixed-effects				
City	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes
Fit statistics				
Observations	793	793	793	793
R^2	0.929	0.929	0.935	0.935
Within R^2	0.000	0.001	0.000	0.000

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*



(a) Number of donations (b) Sum of donations

Figure A35: Effects of donations on rental prices

Table A34: Rent results

	Δ between election year and t+4 in:			
Dependent Variables:	Rent		Logged rent	
Model:	(1)	(2)	(3)	(4)
Variables				
# donations from real estate industry	0.085		0.000	
	(0.101)		(0.000)	
Real estate industry donations ($100s)		0.015		0.000
		(0.016)		(0.000)
Fixed-effects				
City	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes
Fit statistics				
Observations	319	319	319	319
R^2	0.612	0.613	0.628	0.628
Within R^2	0.003	0.004	0.006	0.005

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

O Effects of Donations in Other Policy Areas

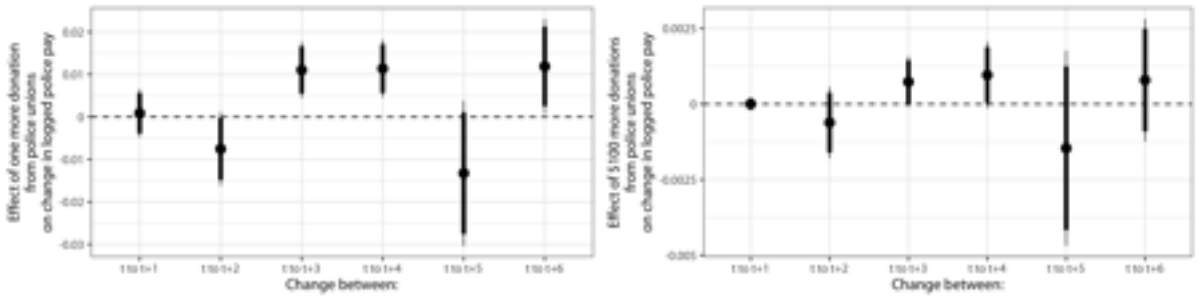
In this section, we examine the influence of local campaign donations in several other important policy areas that work such as Anzia's (2022) suggests may be affected by interest group activity. In particular, we look at the effects of public employee union groups on the pay and number of public employees both in total and in two specific policy areas (police and fire).

Previous research has pointed to large effects of interest group activity in these policy areas (e.g. Anzia 2011, 2012, 2013). We replicate our main analyses of real estate industry donations and housing permitting on police union, fire union, and all public employee union contributions on police pay, fire pay, and overall public employee pay, as well as the number of employees in these areas in local governments.

These results for overall and category-specific employee pay are shown in Figures A36, A37, and A38 and Table A35. Results for the number of total employees and category-specific numbers of employees are displayed in Figures A39, A40, and A41 and Table A36.

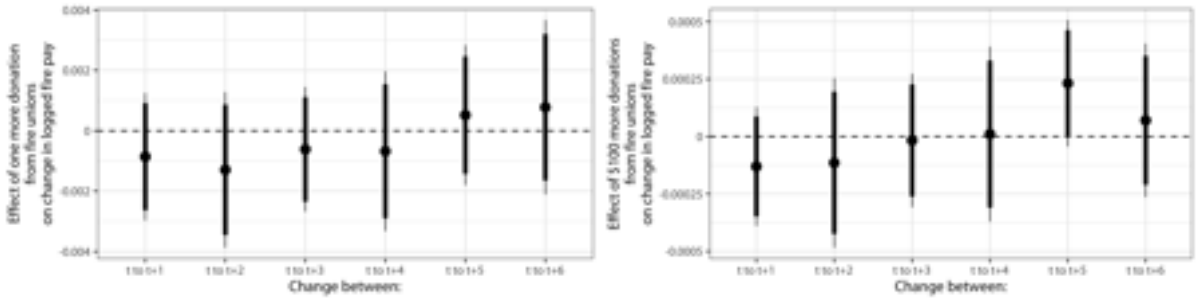
Overall, these indicate little influence of public union donations on government finance and employment overall or in specific policy areas, except for small positive effects on the increase in average police full-time pay several years after an election from a greater number of police union donations. These findings are in line with those from Carreri, Teso and Yu (2026). When police groups make additional donations, the average pay for police goes up two to three years following an election year. Yet these results do not appear for firefighter interest group donations and firefighter pay (see also: Carreri N.d.), or total public employee union group donations and overall average public employee pay. Nor do public union group donations appear to influence local government employment in any area.

Housing interest groups are not the only interest group whose contributions may affect local policy, but it does not appear that financial contributions in local politics automatically earn interest groups' preferred policies.



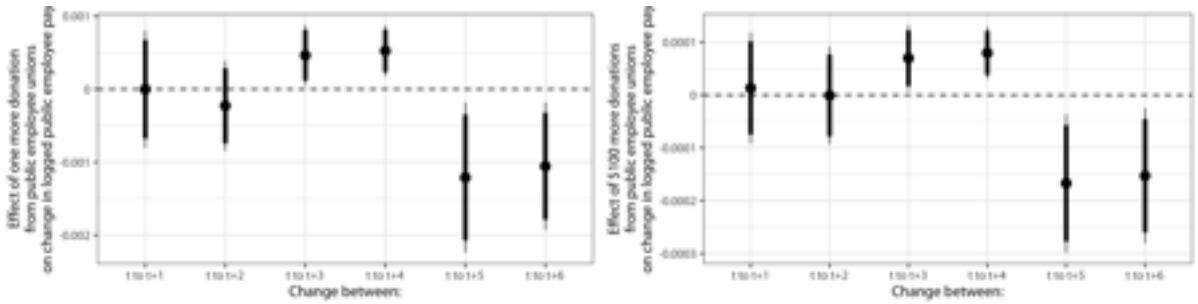
(a) Number of donations (b) Sum of donations

Figure A36: Effects of donations on police pay



(a) Number of donations (b) Sum of donations

Figure A37: Effects of donations on fire pay



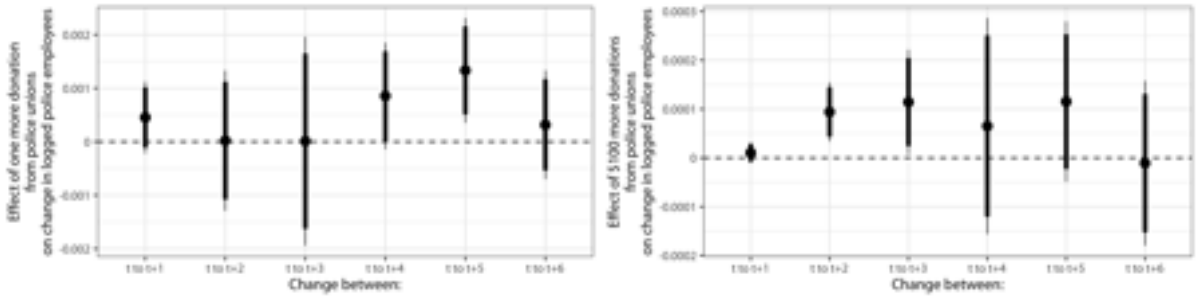
(a) Number of donations (b) Sum of donations

Figure A38: Effects of donations on public employee pay

Table A35: Public employee pay results

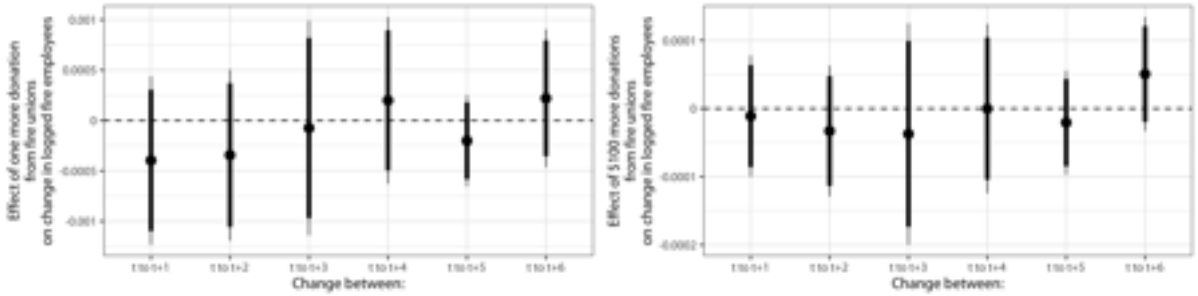
Dependent Variables:	Δ in logged average pay between election year and $t+4$ for: Police		Fire		All Public Employees	
Model:	(1)	(2)	(3)	(4)	(5)	(6)
Variables						
# donations from police unions	0.0114***					
	(0.0035)					
Police union donations ($100s)		0.0010*				
		(0.0006)				
# donations from fire unions			-0.0007			
			(0.0013)			
Fire union donations ($100s)				0.0000		
				(0.0002)		
# donations from public employee unions					0.0005***	
					(0.0002)	
Public employee union donations ($100s)						0.0001***
						(0.0000)
Fixed-effects						
City	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics						
Observations	447	447	417	417	454	454
R^2	0.471	0.451	0.630	0.630	0.709	0.709
Within R^2	0.068	0.033	0.001	0.000	0.003	0.003

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*



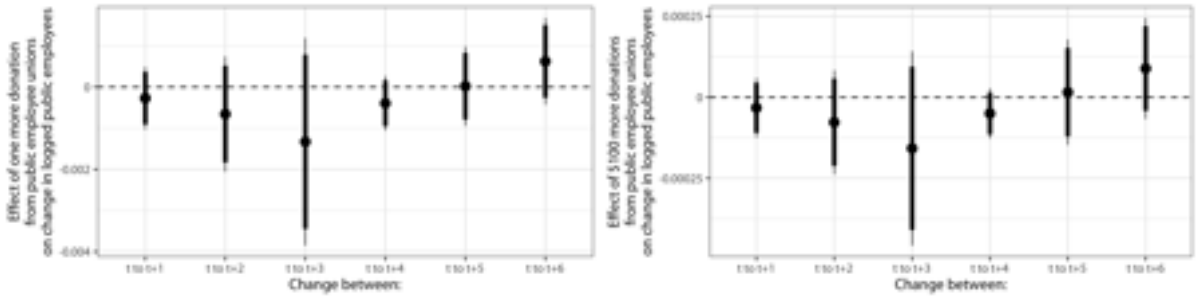
(a) Number of donations (b) Sum of donations

Figure A39: Effects of donations on number of police employees



(a) Number of donations (b) Sum of donations

Figure A40: Effects of donations on number of fire employees



(a) Number of donations (b) Sum of donations

Figure A41: Effects of donations on number of total public employees

Table A36: Number of public employees results

Dependent Variables:	Δ in logged per capita employees between election year and $t+4$ in: Police		Fire		All Public Employees	
Model:	(1)	(2)	(3)	(4)	(5)	(6)
Variables						
# donations from police unions	0.0009*					
	(0.0005)					
Police union donations ($100s)		0.0001				
		(0.0001)				
# donations from fire unions			0.0002			
			(0.0004)			
Fire union donations ($100s)				0.0000		
				(0.0001)		
# donations from public employee unions					-0.0004	
					(0.0003)	
Public employee union donations ($100s)						-0.0001
						(0.0000)
Fixed-effects						
City	Yes	Yes	Yes	Yes	Yes	Yes
State-year	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics						
Observations	599	599	555	555	605	605
R^2	0.616	0.615	0.630	0.630	0.633	0.633
Within R^2	0.003	0.002	0.000	0.000	0.000	0.000

Clustered (City) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*