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How Partisanship in Cities Influences Housing Policy

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Abstract

Housing policy is one of the most important areas of local politics. Yet little is known about how local legislatures and executives make housing policy decisions and how their elections shape policy in this important realm. We leverage housing policy data and a new data source of 13,602 city council elections and 2,716 mayoral elections in large cities in the United States and a regression discontinuity design to examine partisan divides in housing policy among the mass public as well as the impact of local leaders' partisanship on housing policy. We provide robust evidence that electing mayors from different political parties shapes cities' housing stock. Electing a Democrat as mayor leads to increased multi-family housing production. These effects are concentrated in cities where councils have less power over land use changes. Overall, our paper shows that politics influences local housing policy, and it contributes to a larger literature on local political economy.

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Political opposition to new housing and restrictive local land use policy have combined to stunt residential housing construction in many metropolitan areas (Einstein, 2021; Einstein, Glick, and Palmer, 2019; Trounstine, 2020). Though politics in cities has long been concerned with growth and development policy – attracting both businesses and residents (Logan and Molotch, 1987; Stone, 1989) – some of the most contentious policymaking debates in large cities are now focused on residential housing development. Because these large cities tend to be more liberal and Democratic, many in the popular media have suggested that Democrats — both elites and members of the mass public — have caused this housing crisis (e.g. McArdle, 2018). This claim raises the question of how political leaders in cities are influencing housing policy, and whether these policies represent the wishes of their constituents.

While cities and the politicians who lead them are a critical component of political representation in the United States, and local governments constitute the majority of elections and elected officials in the country, we know little about the quality of democratic representation and accountability in these settings when compared to state governments and the federal government (Trounstine, 2010; Warshaw, 2019). In particular, despite recent research on the role of local executives in the formation of city fiscal policy, very little is known about how local legislatures make political decisions, and the effects of both local legislators’ and executives’ elections on policy outside the fiscal realm. As a result, despite media attention to the housing affordability crisis in cities, whether and how politics has caused this crisis and the degree to which housing policy outcomes represent the wishes of voters remains an empirically unanswered question.

In this paper, we examine several markers of democratic representation and partisanship in local housing policy. We leverage a bevy of data sources to holistically assess the degree to which partisanship shapes mass opinion, and whether the election of city leaders from different parties delivers different housing policy to constituents. Using original survey data, we show that there are sharp partisan divides in opinions on multi-family housing development. This polarization is reflected in broad observational data, which indicate that more Demo-

cratic cities produce multi-family housing than more Republican cities. Using a new data source of elections in large cities in the United States and a regression discontinuity design, we also examine the causal impact of city councilors' and mayors' partisanship on housing policy. We examine 13,602 individual city council elections and 2,716 mayoral elections in 358 large cities between 1990 and 2018. Reflecting previous work on the limits to the role of partisanship in local politics, we provide evidence that electing city councilors from different political parties has essentially no effect on cities' housing policy outcomes. However, we provide robust evidence that mayoral partisanship has large and significant effects on housing outcomes. Though previous work has indicated the *fiscal* policy consequences of local officials' partisanship (de Benedictis-Kessner and Warshaw, 2016, 2020) – leading some to suggest that partisanship only plays a role in such types of mundane budgetary policy – we show that these effects extend to other areas of policy. Specifically, we show that mayoral partisanship affects contentious multi-family housing production. Electing a Democrat as mayor leads to increases in the supply of multi-family housing units. These effects are larger in places where the city council has no veto power over new development. Moreover, we find suggestive evidence that mayoral partisanship influences the affordability of cities: electing a Democrat as mayor appears to lower housing prices.

Overall, our results indicate that partisan representation is alive and well in city housing policy. Partisan divisions in reported policy preferences are reflected in the correspondence between housing policy in large cities and the partisanship of those cities' populations. The influence of city councilors' partisanship on housing policy may be limited by the institutional configurations in which they act. Yet mayoral partisanship has large effects on the same policies. Thus our results reinforce longstanding wisdom in the urban politics literature on the power of mayors relative to other local officials (e.g. Svara, 1990). Together, our results examining both city councilors and mayors help to provide an updated and holistic assessment of the consequences of partisanship in cities for a policy area of contentious contemporary debate.

Theoretical Framework

The health of democratic representation requires that policymakers enact policies responsive to the views of their constituents. In turn, voters can select leaders by supporting candidates with whose policy choices and positions they agree, and oppose political candidates with whose policy positions they disagree. Partisanship is one way that may make this process easier for voters (Green, Palmquist, and Schickler, 2002). By creating reliable brands that distinguish candidates across time and circumstance, political parties enable voters to choose between candidates from different parties using this simple heuristic.

A long line of research in political science demonstrates that parties shape the behavior of national and state level politicians. Republican politicians have more ideologically conservative policy positions and voting records than Democratic politicians in Congress and state legislatures (Lee, Moretti, and Butler, 2004; Shor and McCarty, 2011), and this polarization between parties has only expanded over time (e.g. McCarty, Poole, and Rosenthal, 2016). This research suggests that voters might easily distinguish politicians from opposing parties, leading to effective partisan representation in national and state governments.

There is less evidence on whether partisan representation functions effectively in local governments (Trounstine, 2010; Warshaw, 2019). An older literature on urban politics argued that urban policy issues such as paving streets and repairing street lights are inherently bipartisan. Yet the bevy of research on national and state politics suggests that partisanship can structure opinions and policy across a broad range of issues. The partisanship and ideology of local politicians are important cues for voters that enable representation (Boudreau, Elmendorf, and MacKenzie, 2015; Crowder-Meyer, Gadarian, and Trounstine, 2020; Kirkland and Coppock, 2018; Sances, 2018). National political issues increasingly appear in state and local political debates (Hopkins, 2018; Martin and McCrain, 2019; Rogers, 2016), and local issues – from local policing policy to reopening local schools during the COVID-19 pandemic – have recently featured in larger debates on the national partisan stage (e.g. Grossmann et al., 2021; Rakich, 2020). This recent work and the debates of contemporary

politics together suggest that partisan representation may operate similarly on important local policy issues today.

In line with this argument, there are a variety to reasons to expect that the partisan composition of city governments should affect municipal policy based on recent research. Einstein and Glick (2018) show that Democratic mayors tend to have more liberal preferences on fiscal issues. While earlier work suggests that fiscal outcomes do not differ based on the party of the mayor (Ferreira and Gyourko, 2009), more recent work has shown that the election of Democratic mayors and county legislators leads to greater spending (de Benedictis-Kessner and Warshaw, 2016, 2020). The influence of partisanship on policy outcomes might naturally extend to city councils as well. Indeed, previous research has found that legislators tend to form ideological coalitions even within nominally nonpartisan city councils (Burnett, 2019).¹ Partisanship may increasingly matter in local politics as subnational politics has become concerned with more national partisan issues (Hopkins, 2018; Martin and McCrain, 2019). Electing individual politicians from one party or another therefore may have the potential to both change the ideology of the median voter in local legislatures and influence policy outcomes. This could be especially true in policy areas where the ideological preferences of Democratic legislators are far from the preferences of Republican legislators (Lee, Landgrave, and Bansak, 2022).

Housing policy, and especially multi-family housing production, has increasingly become associated with the two major political parties in the US. Recent claims by then-President Donald Trump that Democrats would “destroy” suburbs alongside criticism by national partisan elites of Democratic attempts to increase multi-family housing underscore this.² At the local level, Democratic and Republican mayors have different views on housing policy (Einstein, Glick, and Palmer, 2017; Einstein et al., 2018). Democratic state legislators in

¹Though, see Bucchianeri (2020).

²For examples of these claims, see Trump, Donald J., and Ben Carson. 2020. “We’ll Protect America’s Suburbs.” *Wall Street Journal* (August 16), online: <https://www.wsj.com/articles/well-protect-americas-suburbs-11597608133>, and Keith, Tamara. 2020. “Down in the Polls, Trump Pitches Fear: ‘They Want To Destroy Our Suburbs.’” *NPR* (July 22), online: <https://www.npr.org/2020/07/22/893899254/down-in-the-polls-trump-pitches-fear-they-want-to-destroy-our-suburbs>.

California were also more likely than Republicans to support a recent landmark bill there to expand housing production.³

Empirical findings on voter preferences have largely paralleled these conclusions on elite opinion. While earlier findings suggest that Democratic voters largely opposed new development (Gerber and Phillips, 2003; Kahn, 2011), more recent evidence suggests that – at least relative to Republicans – Democrats are more likely to favor development (Einstein, Palmer, and Glick, 2019; Einstein and Glick, 2016; Lessem, Niebler, and Urban, 2020; Marble and Nall, 2021), especially as a response to housing supply shortages and the associated impact on local inequality. Theoretically, these ideological differences should be the driving mechanism behind potential changes in housing policy that result from the election of politicians from different parties.

Local politicians in any office may have the ability to influence housing policy. Mayors often set policy goals more broadly for cities using their budget and political leadership. In addition, alongside their local housing authorities, mayors usually control the disbursement of federal housing subsidies to local residents and property developers. Mayors also ordinarily appoint members of zoning boards of appeal that control variances to existing zoning regulations. City councilors may also play an especially important role in housing development given that zoning boards must often seek approval for their decisions from the city council (Anderson, Brees, and Reninger, 2008). City councilors may have incentives to influence development specifically in their geographic districts due to concentrated constituent pressure (Hankinson and Magazinnik, 2022).⁴ We therefore anticipate that the election to city councils and mayors' offices of a Democrat, rather than Republican, will increase new housing production, especially for multi-family units.

While it may seem obvious that partisanship should affect local housing policy, as it does most other aspects of American politics, a variety of previous literature has argued that

³See <https://legiscan.com/CA/votes/SB9/2021>.

⁴Though see Gabbe and Kahn (2021) for evidence that this kind of political influence does not happen among Los Angeles city council districts.

housing policy differs from more traditionally-ideological fiscal policy. A number of scholars have argued that while partisan polarization may exist on abstract housing policies, such divisions might not exist for concrete housing policy decisions and outcomes (Anzia, 2021; Hankinson, 2018). Others have argued that divisions – both at the elite level and among the mass public – on local policy issues like housing may correspond not with partisanship but with other factors such as homeownership (Einstein, Glick, and Palmer, 2019), self-interest (de Benedictis-Kessner and Hankinson, 2019; Marble and Nall, 2021), race and class (Hajnal and Trounstine, 2014; Schaffner, Rhodes, and La Raja, 2020), preferences for privatization (Bucchianeri et al., 2021), or membership in other groups (e.g. Anzia, 2011). Thus the election of politicians from different parties might lead to little changes in the policy preferences of officials in power or policy outcomes. Finally, there is a large literature on the constraints on local officials’ influence over policy due to state control, which may limit the ability of local politicians to change policy even if they wished to do so (Peterson, 1981, 1995). This work suggests that given the numerous layers of approval needed for increases in housing development – ranging from appointed planning and zoning commissions, to boards of zoning appeals, to judicial review (Anderson and Sass, 2004) – local political leaders may have little ability to influence housing policy.

Data and Research Design

To assess the effects of partisanship on local housing policy, we leverage a variety of sources of original data. To examine the mass public-driven motivations for partisan influences on housing policy change, we examine city-level partisan vote shares in presidential elections and survey data on local housing policy. In order to examine the policy effects of the partisan composition of city governments, we collect data on city mayoral and legislative elections and housing policy based on permits for private housing development.

Survey Data

As a simple exploratory look at whether partisanship might structure housing policy, we use survey data. These data on mass public opinion come from an original survey we fielded in November 2021 on a diverse, national sample of US respondents recruited via the firm PureSpectrum, which pays respondents from a marketplace of other survey sample panel companies. We fielded this survey of 2,212 respondents using quotas to match the demographics of the United States as a whole.⁵ Among other questions, we asked respondents a question on the development of multi-family housing. Specifically, we asked whether respondents support allowing multifamily housing everywhere in their city or town rather than in specific downtown neighborhoods to gauge public opinion on this contentious policy issue.⁶

City Election Data

To assess partisan representation via elections, we gather data on elections from 1980-2018 in medium and large cities with a population of more than 75,000 people in 2010. We focus on medium and large cities because these cities are likely to have more flexibility to change policy than smaller ones.⁷ The final dataset that we use in our analysis consists of 13,602 individual city council elections and 2,716 mayoral elections in 358 cities from 1990 to 2018. Figure 1 displays the temporal coverage of these data.

Figure 2 shows the size of the legislatures in the cities in our dataset. Typical city councils are fairly small, and the median city in our data has 8 councilors. While councils with fewer than 10 members are typical, some cities — like New York City — have councils with up to 51 members.

⁵We base these quotas on the 2014-2018 ACS. We received informed consent from all survey participants, as described in Appendix A.

⁶The full wording of questions used in the survey are in Appendix A.

⁷We use a combination of data from previous papers (Ferreira and Gyourko, 2009; Gerber and Hopkins, 2011; de Benedictis-Kessner and Warshaw, 2016), administrative records, and the crowd-sourced OurCampaigns website to assemble election returns. For officially nonpartisan elections, we estimate candidates' partisanship based on information in OurCampaigns, matches to the voter files from the firms L2 and TargetSmart, candidates' campaign-finance-based (CF) ideology scores (Bonica, 2014), and candidates' partisanship in elections for other offices.

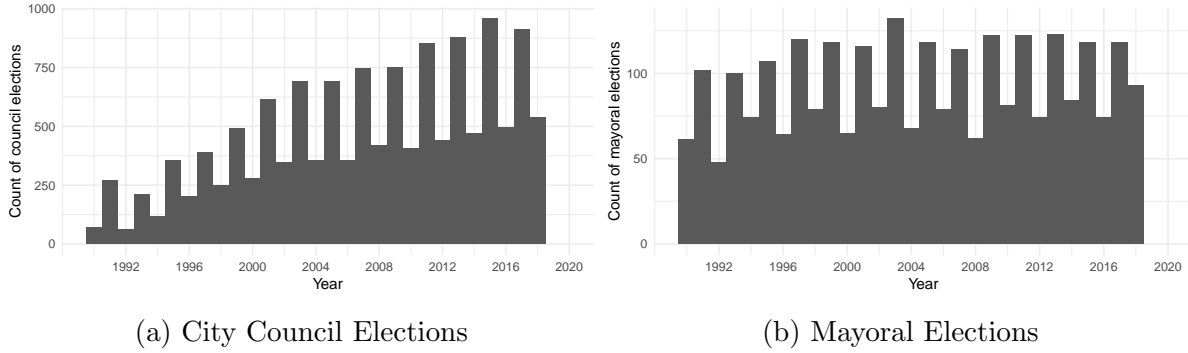


Figure 1: Temporal Coverage of Elections Data

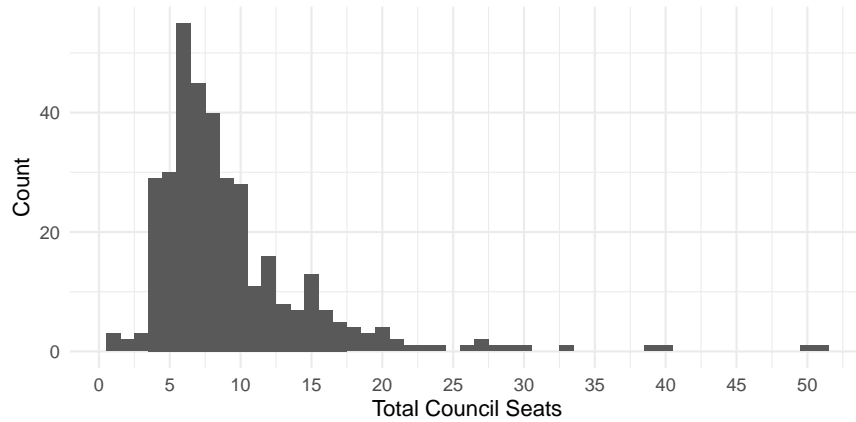


Figure 2: Size of City Legislatures in our Dataset

While many big cities have predominantly Democratic populations (Rodden, 2018), their representatives on city councils and in mayors’ offices are not uniformly Democratic. In Figure 3 we plot the proportion of council seats held by each party (on the left) and the proportion of mayors from each party (on the right) in the cities in our data over time. While Democrats consistently hold a larger proportion of seats on city councils than Republicans on average, Republicans do hold a nonzero share of the seats on city councils – and close to a quarter of seats on average in the last ten years. Meanwhile, only slightly more than half of the mayors’ offices in our data are occupied by Democrats, while around a quarter are occupied by Republicans.

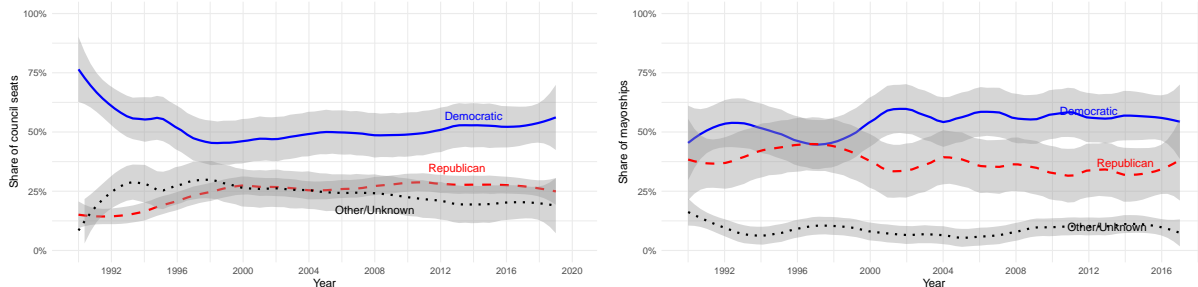


Figure 3: Partisan composition of city councils and mayoralships over time.

City Housing Permits Data

To study the impact of the partisanship of city leaders on housing policy, we use data on the housing development permits issued by each city in each year from the Census Bureau’s Building Permits Survey. The Building Permits Survey is sent to local building permit officials via a mail or online survey and compiled into datasets by the Census Bureau’s Manufacturing and Construction Division.⁸ These data contain statistics on new privately-owned residential construction at the level of individual permit-issuing jurisdictions by year.

We use the city-level annual summary data files that contain total numbers of buildings and units permitted by the type of housing structure — either single-family detached homes or multi-family buildings of two or more housing units — as well as the multi-family proportion of buildings and units that are permitted. We show the over-time variation in these key outcomes variables for all large cities in our target universe in Figure 4.

It is important to note that permitting of multi-family units is not necessarily equivalent to an expansion in the availability of rental units or affordable housing. Multi-family buildings can, of course, be condominiums or market-rate apartments. It is also important to note that permitting of multi-family units is not the only housing policy lever available to a city (e.g., housing subsidy programs, creation of housing trust funds, and creation of inclusionary zoning programs). However, the permitting of multi-family units is an important

⁸These data are inherently limited to new construction for which there was a building permit issued by a government authority. However, the Census Bureau estimates that less than 3% of all privately owned housing units in permit-issuing jurisdictions are built without a permit (U.S. Census Bureau, 2011).

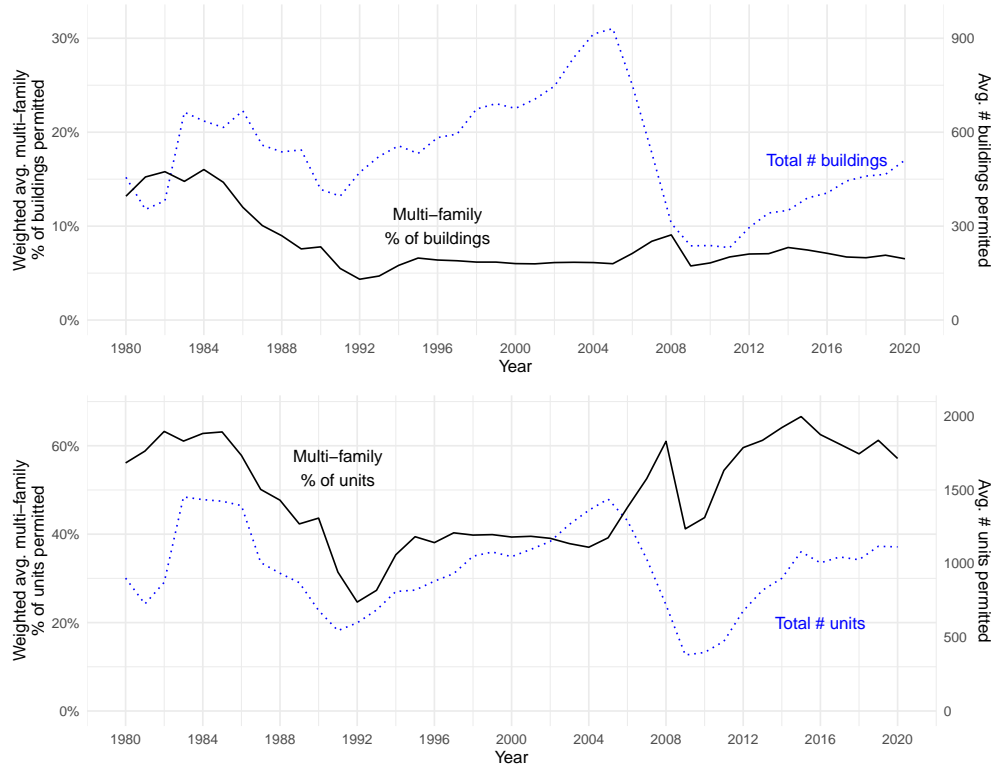


Figure 4: Over-time changes in cities’ housing stock, with the total number of buildings permitted and multi-family percent of buildings (top panel), and the total number of units permitted and multi-family percent of units (bottom panel). Both panels use the full dataset of building permits from all cities with a population over 75,000 in 2010.

measure for us for multiple reasons. First, restrictions on building multi-family units have been a key tool of exclusion in housing policy of American cities (Sahn, 2021; Whittemore, 2021). Second, while we cannot observe the share of multi-family units in our data that are market-rate vs. affordable, recent evidence documents that increasing the supply of multi-family units increases a city’s housing affordability, even when the newly constructed units are market-rate (Asquith, Mast, and Reed, 2021; Mast, 2021; Li, 2021).

Land Use Regulation

In order to assess the impact of land use regulatory institutions at the city level, we use data on the power of local councils to veto new development. These data are from the Wharton Land Use Regulatory Index (Gyourko, Saiz, and Summers, 2008), a dataset compiled

from responses to a survey mailed by researchers in collaboration with the International City/County Management Association’s (ICMA). These data were first collected in 2008 and updated in 2018 (Gyourko, Hartley, and Krimmel, 2021), and contain an array of information on the regulatory landscape in cities with regard to land use. Specifically, we use information from this dataset in the most recent year available about whether a city requires the approval of a majority of local councilors or commissioners, or of the city manager, in order for any residential land use changes that do not require re-zoning (i.e. “by-right” development). We use this source of data to assess the differential impact of city leaders’ partisanship under different regulatory regimes.

Regression Discontinuity Design

We use a regression discontinuity (RD) design to identify the effect of electing city leaders of different parties on fiscal policy.⁹ We exploit the fact that a sharp electoral threshold, 50% of the two-party vote share, determines which party wins city council elections.¹⁰ The validity of the RD design depends on the assumption that only the winning candidate — and not the distribution of units’ potential outcomes — changes discontinuously at the threshold (Hahn, Todd, and Klaauw, 2001; Lee and Lemieux, 2010). One way to check the validity of this assumption is to examine the density of observations across the threshold with a McCrary test (McCrary, 2008). We conduct this diagnostic test and find a null result for both council and mayoral elections, which suggests the RDD can be used. We also conduct a nonparametric test (Cattaneo, Jansson, and Ma, 2019) and an equivalence test (Hartman, 2021) for the density of observations. These additional tests suggest that the assumption of continuity of potential outcomes is unlikely to be violated, though we cannot rule out some degree

⁹Previous studies in the urban politics literature have similarly used the regression discontinuity design to examine the local incumbency advantage (de Benedictis-Kessner, 2018; Ferreira and Gyourko, 2009; Trounstein, 2011; Warsaw, 2019), and the effects of politicians’ characteristics on other policy issues (e.g. Beach and Jones, 2016; Ferreira and Gyourko, 2009; Gerber and Hopkins, 2011; Hopkins and McCabe, 2012; Kirkland, 2021; Kogan, Lavertu, and Peskowitz, 2021).

¹⁰In multimember district elections, we compare the bare-winners and bare-losers for the last seat in the race (e.g., in a district with three seats up for election, we compare the votes of the 3rd and 4th placed candidates).

of differences in the density of observations across the threshold for mayoral elections.¹¹ Consistent with the large-scale validation of electoral regression discontinuity (RD) design studies conducted by Eggers et al. (2015), we also observe no significant discontinuities in lagged values of the running variable or other key placebo variables.¹² In order to increase statistical efficiency, we estimate treatment effects on changes in outcomes rather than on levels (Lee and Lemieux, 2010). In order to account for the lag in time between a politician taking office and their ability to influence policy outcomes, our main analyses focus on the difference between housing outcomes in the election year and the average of outcomes measured two and three years after the election.¹³

We estimate the effect of electing a Democratic city councilor (or mayor) rather than a Republican councilor (or mayor) based on the “jump” in outcome variables at the threshold. We model the relationship between the assignment and outcome variables with local linear regression, using the default optimal bandwidth options in the `rdrobust` package in R (Calonico, Cattaneo, and Titiunik, 2014a).¹⁴ The optimal bandwidth is chosen to minimize mean-square-error (MSE) and confidence intervals are adjusted to account for remaining bias (Calonico, Cattaneo, and Titiunik, 2014b; see also Imbens and Kalyanaraman, 2012).¹⁵ Since there are often multiple elections in a given year for a particular city’s council, we cluster standard errors by city-year in our analyses of councilors, and we cluster by city in our analyses of mayors.¹⁶

¹¹The full results from these tests and histograms showing the density of observations across the threshold are presented in Appendix B.

¹²These placebo results are shown in Appendix C, which show the effect of electing a Democrat on lagged versions of the running variables and housing outcomes.

¹³This strategy enables us to increase statistical power over a strategy using changes in outcomes between the election year and two years after the election by reducing noise in outcomes from individual years (de Benedictis-Kessner and Warshaw, 2016, 2020; Gerber and Hopkins, 2011).

¹⁴In our main analysis, we use the default local linear regression in `rdrobust` because Calonico, Cattaneo, and Titiunik (2014b) show that local linear regression models perform well in RD designs with optimal bandwidth selection (see also Cattaneo, Idrobo, and Titiunik, 2019, 41-42).

¹⁵Our results are robust to this choice of bandwidth, however. We show our effects for other bandwidths than the optimal-MSE one in Appendix F.

¹⁶We use the ‘cluster’ option in `rdrobust`. One final complication for our analysis is that while the vast majority of city councils are small (see Figure 2), our dataset is heavily skewed toward the small number of cities with larger legislatures. To address the over-representation of cities with large councils in our dataset, we weight our analyses of the effects of councilor partisanship based on the number of councilors

Results

In this section, we examine the effects of partisanship on housing policy. We first examine the role of partisanship in structuring both policy outcomes and parallel policy opinions among members of the mass public. We then turn to the effects of politicians' partisanship on housing policy, and assess these in a cross-sectional framework, examining the association between the partisan composition of city councils and city policy, followed by the association between changes in these values. We then move to our main analytical framework and use a regression discontinuity design to examine the causal effect of city councilors' and mayoral partisanship on policy. Together, these analytical strategies yield results suggesting that while city councilors have little influence on the development of multi-family housing, the partisanship of mayors has a large effect on permitting of new multi-family housing.

Partisan Polarization on Housing Policy at the Mass Level

As a first look at the influence of partisanship on housing policy, we show the descriptive association between the partisan composition of the public in cities and the composition of permitted housing development. Figure 5 shows the correspondence between a city's Democratic voteshare in the 2008 presidential election, along the horizontal axis, and, along the vertical axis, the multi-family share of buildings permitted (in the left panel) or multi-family share of units permitted (in the right panel). The trendline in both plots shows the smoothed local average, and indicates that cities with a more Democratic electorate permit more new multi-family housing than cities with a less Democratic electorate.

These aggregate patterns are supported by our exploratory survey work measuring policy preferences at the individual level. In Figure 6 we show the percentage of respondents supporting more multi-family housing development everywhere in their cities or towns broken

in each city council relative to the average number of councilors, such that elections for larger councils are weighted less heavily than ones for smaller councils. This enables us to interpret our estimates as the effect of elections in the average *city* rather than the average *election*. This approach prevents the handful of cities with very large councils from driving our results. However, the results using unweighted analyses are very similar.

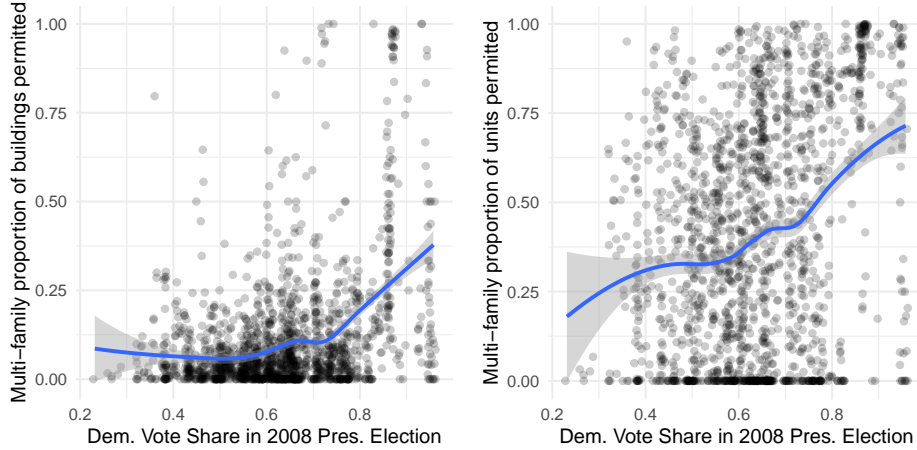


Figure 5: Association between city presidential voting and composition of housing permitted. Points show the multi-family proportion of buildings (left panel) and units (right panel) permitted along the vertical axis, and the 2008 Democratic presidential voteshare along the horizontal axis.

down by their partisanship. We find that Democratic respondents were more supportive of multi-family housing development than Republican respondents by 19 percentage points. This gap represents sizable polarization in opinions between partisan groups.¹⁷

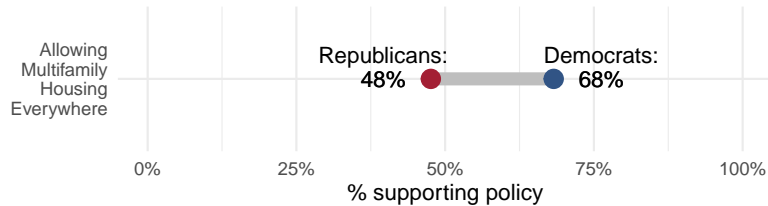


Figure 6: Partisan Differences in Housing Policy Opinions

Regression Discontinuity Estimates

In order to determine the *causal* relationship between changes in the partisanship of city leaders and city policy, we turn to a regression discontinuity design. This strategy restricts our estimand to a *local* average treatment effect (LATE) of partisanship in close elections, rather than effect of partisanship *overall*. Yet this strategy also enables us to isolate the

¹⁷A two-sample t-test for the difference in proportions also indicates that this difference is statistically significant, $p = 0$.

causal effect of electing a Democratic city councilor or mayor, rather than a Republican, on local housing policy. This design harnesses knowledge from the cities that had a close council or mayoral race between a Democrat and a Republican candidate, which constitutes 89% of the medium and large cities in our dataset with elections contested by candidates from both parties. This includes places in the Sun Belt like Jacksonville, FL, and Tucson, AZ, but also places in the Northeast like Lynn, MA, and in the West like Fresno, CA.

We plot these results in Figure 7, with the Democratic margin in the election plotted along the horizontal axis — showing Democratic victories to the right of zero and Republican victories to the left. Along the vertical axis we plot the change in the natural log of the number of multi-family housing units plus one, with positive values meaning an increase in multi-family housing units over previous years’ level of development and negative values meaning a decrease in multi-family units. The trend lines plot local linear regressions weighted using the triangular kernel within the bandwidth selected to minimize mean-squared error (Calonico, Cattaneo, and Titiunik, 2014b). The vertical jump between the two lines at the threshold value of zero along the horizontal axis indicates the effect of electing a Democrat rather than a Republican on housing policy.

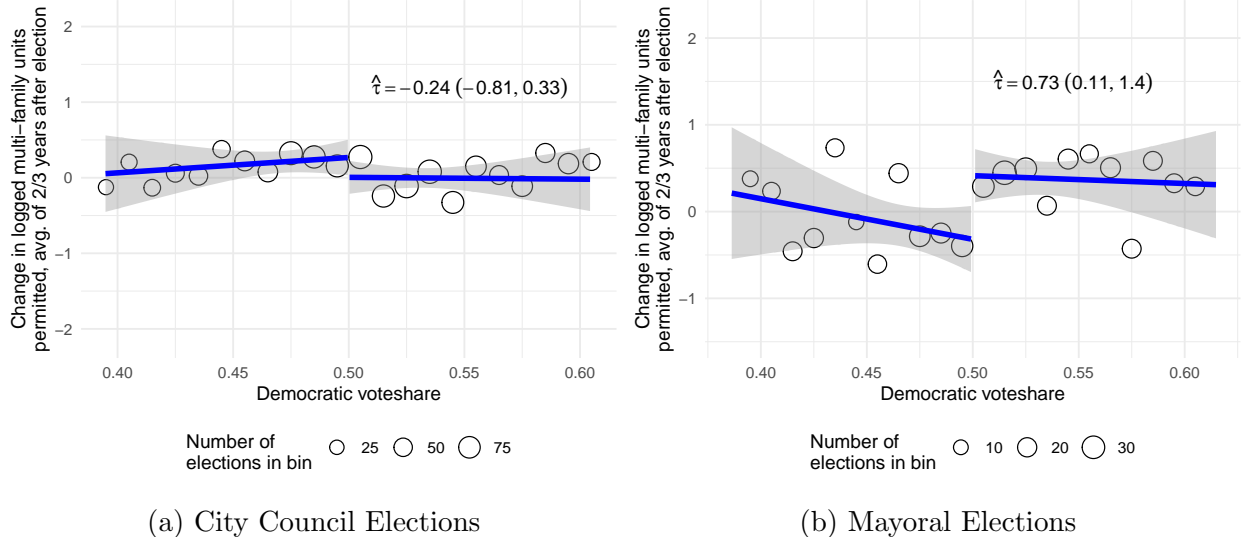


Figure 7: The effect of partisanship on changes in the logged number of multi-family units permitted in the fiscal years two and three years after an election

The left panel shows that in the average city, electing a Democratic councilor changes the number of multi-family units permitted in the years after an election by about -24% relative to electing a Republican councilor.¹⁸ This effect is statistically insignificant, however. In contrast, electing a Democrat rather than a Republican as mayor leads to an increase in the change in the logged number of multi-family housing units permitted of approximately 0.73 several years after their election, as shown in the right panel of Figure 7. In other words, Democratic mayors increase multi-family housing production by over 70%. This equates to an increase of approximately 60-70 multi-family housing units per 100,000 capita, as we show in Appendix G.

How do these effects on multi-family housing production compare to the same effects of city leaders' partisanship on single-family housing production and total housing production? We display the effects of partisanship on these outcomes in Figure 8. While the election of Democratic mayors leads to increases in multi-family housing production, it has null or negative effects on the total number and number of single-family buildings and units permitted. The largest effects on multi-family housing production appear for the number of housing units, rather than buildings – suggesting that while Democratic politicians do somewhat increase the *number* of developments in their city, they have larger effects on the *size* of those developments, which leads to increases in the number of units without necessarily increasing the number of buildings. This may reflect the fact that development of new buildings is more dependent on supply-side factors such as the availability of vacant parcels, while the size of those developments is more easily influenced by the political process.

This increase in multi-family housing units alongside a much smaller increase in the total housing units is a compositional change that can also be represented by the proportion of total housing permitted that is multi-family. We plot the effect of electing a Democrat on the composition of housing permitted – that is, the proportion of total housing that is multi-family – in Figure 9. There are large positive effects of mayoral partisanship on

¹⁸These results, as well as the others presented in visual format in this section, are displayed in tabular form in Appendix D.

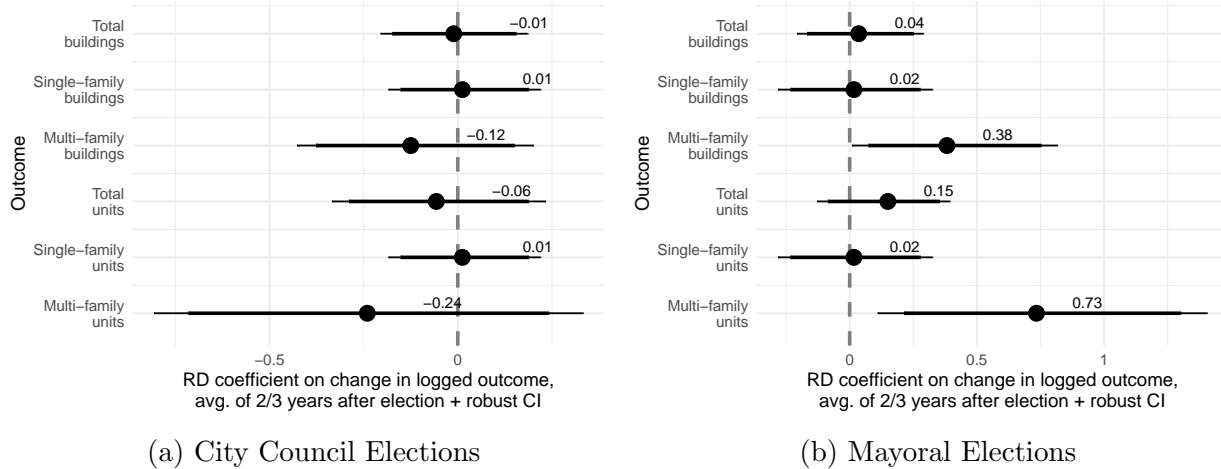


Figure 8: The effect of partisanship on changes in housing permitting in the fiscal years two and three years after an election. Thick bars show 90% confidence intervals and thin bars show 95% robust confidence intervals.

the composition of housing units permitted. Electing a Democrat as mayor rather than a Republican leads to a 10 percentage point larger increase in the multi-family proportion of housing 2-3 years after their election.¹⁹

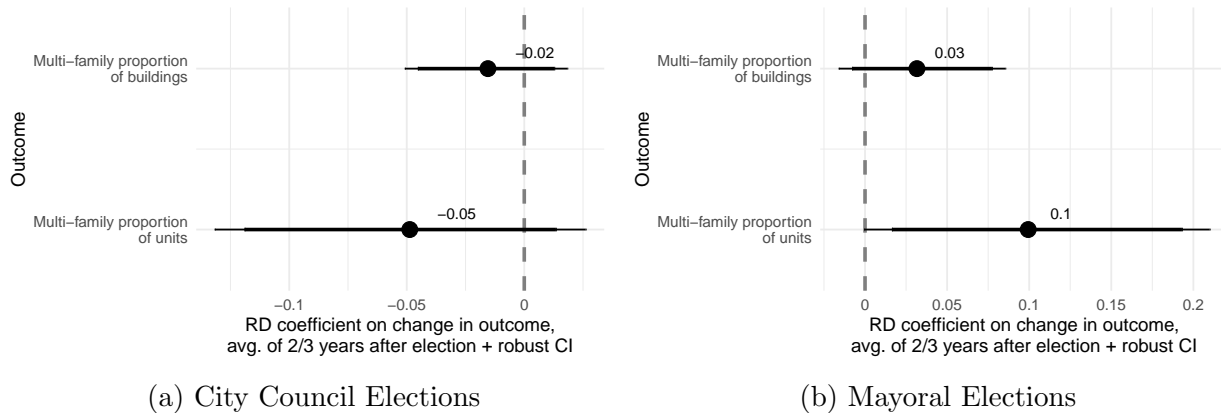


Figure 9: The effect of partisanship on changes in type of housing permitted in the fiscal years two and three years after an election. Thick bars show 90% robust confidence intervals and thin bars show 95% robust confidence intervals.

Given that we identify effects of mayoral partisanship on housing production, we also

¹⁹These effects also appear to be enduring for the years 2-4 after the election, which we show in Appendix E, alongside analyses using different time horizon averaging of the outcome variable. We also present robustness checks for these analyses using alternative transformations of the main outcome variables in Appendix G: both a non-logged per capita measure, and the natural log of the outcome plus 0.1 rather than the natural log of the outcome plus 1.

examined one downstream consequence of increased housing permits: housing prices. This analysis builds on research on housing across the disciplines of economics and urban planning that has consistently identified the effect of building more housing (and more multifamily housing) on the affordability of housing in cities (e.g. Glaeser, Gyourko, and Saks, 2005; Glaeser and Gyourko, 2018). To do so, we incorporated data from the Zillow Housing Value Index, a dataset constructed for researchers by Zillow. The index provides a monthly, smoothed, seasonally-adjusted measure of home values (single-family residences and condominiums) at the city level. For our purposes, we collapse the index to the city-by-year level. We then analyzed the effects of city councilors' and mayors' partisanship on the overall housing affordability of cities using these data and the same regression discontinuity design as described earlier. Our analyses in Appendix M provide suggestive evidence that electing a Democrat as mayor leads to a decrease in growth in housing prices, relative to the counterfactual of electing a Republican. However, this analysis is under-powered and should be further examined in future work.

To better understand the conditions under which partisan representation in government influences housing policy, we also examined potential institutional moderators of the effects of city councilors' and mayors' partisanship on policy in Appendix J. We assess the different effects of partisanship under strong mayor versus council-manager systems of government, the effects in cities that use district- or ward-based elections for city councilors versus those that use at-large elections, and the effects in cities that use partisan versus nonpartisan ballots in their local elections. We also assess the effects of city councilors' partisanship in cities that have larger or smaller city councils. In all cases we observe only small differences in the size of the effects of partisanship. Though in no case would we be able to identify a causal effect of the institutions on the size of our main effects due to a lack of over-time changes in institutional configurations, the lack of large cross-sectional differences that we observe do help us to rule out potential institutional dependencies.

Robustness of Main Regression Discontinuity Estimates

Our main result thus far is that the election of a Democratic mayor – but not city councilmember – leads to an increase in multifamily housing production. In the Appendix, we demonstrate the robustness of this result to different modeling choices. We briefly discuss some of those tests here and summarize them in Table 1.

Appendix	Robustness Check
Appendix E	Different time periods for outcomes
Appendix F	Different bandwidths for RDD
Appendix G	Alternative transformations of non-proportion outcomes
Appendix H	Variety of higher order polynomials for RDD
Appendix I	Randomization inference, 2% bandwidth
Appendix L	Nonparametric Difference-in-Difference Model (PanelMatch)

Table 1: Summary of Robustness Checks in Appendix for Mayoral Results

First, we show that the result is robust to different time horizons (though the effects peak two to three years after the election) and different averaging over subsequent years to construct both the baseline levels and change measures we use as our outcome in Appendix E. Our main results are robust to different bandwidths for the RD model, which we document in Appendix F. As in results reported thus far, we find that Democratic mayors have an impact on the logged number of multifamily units and the proportion of multifamily units for a wide array of bandwidths, whereas all outcomes are unresponsive to Democratic councilmembers, regardless of bandwidth. We also present results using alternative transformations of the outcome variables that are not proportions in Appendix G, and find similar (but insignificant) results, though our proportion-based outcomes remain the same. We caution that the analyses using non-logged outcomes are subject to over-influence from observations with large outlier values of the outcomes, however. We also obtain similar results using higher order polynomials for our RD models as well as a simple difference in averages within the optimally-selected bandwidth (i.e., a 0-order polynomial) between cities that elected a Democrat versus those that did not in Appendix H; results are similar, indicating that our main results are not simply an artifact of functional form. In Appendix I, we show that we obtain

similar results using local randomization inference in a narrow 2% bandwidth on either side of the discontinuity with 10,000 simulations using the `rdlocrand` package in R (Cattaneo, Titiunik, and Vazquez-Bare, 2016).

Finally, in Appendix L, we present results using a different approach altogether. Namely, we estimate non-parametric difference-in-differences models using the PanelMatch method (Imai, Kim, and Wang, 2021), which compares units with similar treatment histories (i.e. party control) and similar pre-treatment outcomes (i.e. housing permits) that are “treated” with a Democrat taking control of the mayoral office vs. those that are not treated (i.e. a Republican takes control).²⁰ We prefer the regression discontinuity approach presented in the main text, as it better deals with the endogeneity in the likelihood of electing a Democrat. Despite that, we do ultimately find similar, albeit less precisely estimated, results in the difference-in-differences approach.

Regulatory Institutions and Veto Power

We next assess the role of regulatory regimes — that is, the limits on development imposed by allowing city councilors and commissioners to prevent new residential development even when it is allowed under existing zoning laws. This type of rule contributes to the stringent regulatory regimes that increase the price of housing in cities (Gyourko and Krimmel, 2021). Of the 358 large cities in our elections data, 39% have this rule that requires a majority or supermajority of councilors to approve “by-right” land use changes, essentially limiting new development. We note that this institutional regime is primarily a constraint, and not a positive power: it denotes the ability of city councilors to veto new residential development. We therefore would expect weaker partisan differences on housing outcomes in municipalities with this type of regulation.

In Figure 10 we plot the effects of city councilors’ and mayors’ partisanship on the composition of housing permitted under each type of this regulatory regime. These results

²⁰Specifically, we match using Mahalanobis distance on lagged outcomes in the four years prior to treatment.

indicate that when local councilors have veto power over land use changes, this limits the degree to which partisanship influences the housing permits that are issued. Electing a Democrat to the office of city councilor or mayor has no effect on housing in cities where councils have this power. While the partisanship of city councilors still does not cause increases or decreases in the housing permitted when they do not have this veto power, the partisanship of the mayor does have an effect in places without this regulatory institution. Electing a Democrat rather than a Republican as mayor only increases multifamily housing permitted when city councils do not have the ability to veto new development.²¹ Though we do not believe this moderation is necessarily causal (Bansak and Nowacki, 2022), this result suggests that regulatory institutions beyond zoning may influence the growth of housing supply.

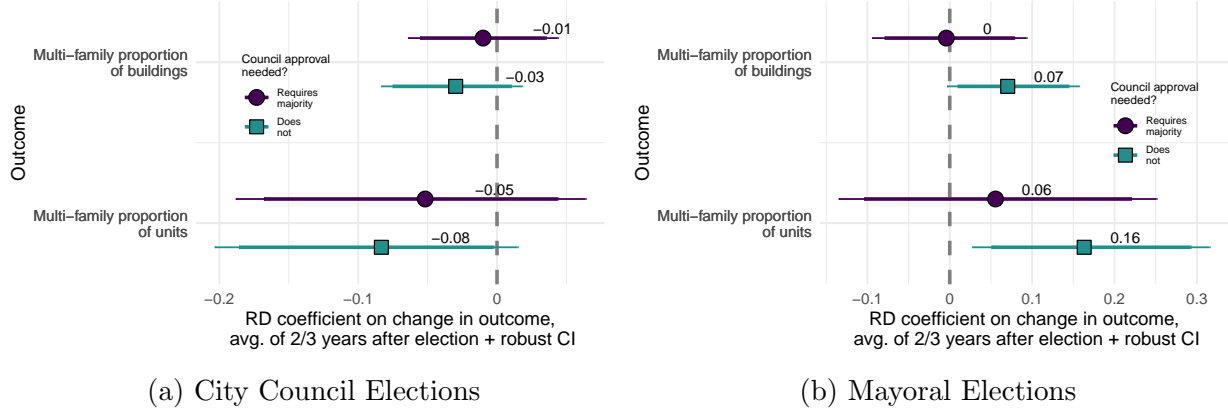


Figure 10: The effect of partisanship on changes in the composition of housing permitted in the fiscal years two and three years after an election, divided by the regulatory power afforded to city councils. Thick bars show 90% robust confidence intervals and thin bars show 95% robust confidence intervals.

Conclusion

Large cities in the United States face a housing affordability crisis. Municipal governments are a crucial thread in the fabric of American democracy and in particularly expensive cities,

²¹We see similar moderation in the effect of partisanship on the number of units permitted, as Figure A23 in Appendix J shows.

they may have played some role in the development of this crisis. Furthermore, in cities that are experiencing rapid population growth and are just now seeing the beginnings of the housing crisis, municipal governments may play a role in expanding housing supply and potentially ameliorating increases in housing prices. Investigating the impact of political leaders on housing policy — and how elections influence policy — can help explain contemporary and future housing policy crises.

Assessing the degree to which representation functions in city governments is also critical for a broader understanding of democratic functioning in the United States as a whole. While there is a growing body of evidence that the partisan composition of local governments can affect a range of fiscal policy outputs (de Benedictis-Kessner and Warshaw, 2016, 2020; Gerber and Hopkins, 2011), recent work has pointed to limits to the influence of partisanship in local politics (Anzia, 2021). Some policy arenas may simply not generate disagreement among members of the public or among local politicians (e.g. Thompson, 2020). However, there is no previous study that examines this type of representation in city councils, and none that examines how partisan representation functions in many contentious policy debates that occupy municipal politics. In this paper, we provide a comprehensive assessment of the degree of partisanship’s effects on the development of housing.

We show a variety of evidence that partisanship influences housing policy. Using public opinion data, we show that there are partisan divides in policy views on multi-family housing. Democrats are far more supportive the construction of multi-family housing. Moreover, we demonstrate that partisan representation in city governments influences housing policy. We find that there is a strong association between the partisan composition of city councils and the permitting of multi-family housing. Yet we find no causal evidence that electing Democrats rather than Republicans to city councils leads to housing policy differences. This is despite the fact that housing development is a contentious local policy issue that is often debated in council meetings and over which city councilors are often thought to have control (Einstein, Glick, and Palmer, 2019; Hankinson, 2018; Hankinson and Magazinnik, 2022).

Our results suggest a more nuanced picture of partisanship among city councilors. They potentially indicate that partisanship – while an important feature of politics for other local politicians and on other policy issues – may not structure the policies that result from councilors decisions on housing.

In contrast, mayors have large effects on housing policy. When a Democrat is barely elected as mayor rather than a Republican, cities permit more multi-family housing. The partisanship of local politicians can shape subsequent housing outcomes — indicating that partisan divisions among the public in housing policy opinions can translate into differences in local housing policy outcomes due to mayoral elections. We also show preliminary evidence of one important downstream consequence of these increases in multi-family housing in our analyses of housing prices. Our results suggest that electing a Democrat as mayor may lower housing prices. Together, these results indicate that housing policy is not immune from the effects of political partisanship in cities.

We also examine whether the size of these effects varies by the institutional constraints under which local politicians operate. In particular, we find that both the council-manager municipal form of government and nonpartisan ballots, which were instituted as part of the reform movement to insulate city politics from the mores of partisan national politics, do not prevent mayors’ partisanship from influencing policy. The differences between the effects we observe under these institutional arrangements indicate little descriptive or causal moderation by local institutional configurations. On the other hand, the city-level zoning rules that give city councilors veto power over land use changes *do* moderate the effects of mayoral partisanship on housing. When these powers are strong – and allocate more power to city councilors – mayors have less influence over housing policy.

Overall, we demonstrate that city councilors’ role in a local policy landscape, which includes prominent elected or unelected executives and state government constraints, may limit the effects of their partisanship on housing policy. Thus while the partisan composition of local legislatures may correspond with the direction of housing policy, it is likely not *caused*

by the partisanship of these legislators. Instead, local housing policy may be shaped more by the influence of the mayor’s partisan leanings. Alternatively, the policymaking behavior of city councilors in large cities on the issue of housing may be influenced more by the activity of growth and development interest groups in their cities (Anzia, 2022) rather than legislators’ partisanship. Mayors, on the other hand, maintain an ability to shift local policy in their ideological direction – and in the case of housing policy, they are able to do so by a substantively large amount. Yet city legislators maintain some ability to affect housing production due to formal institutional powers, as our analyses show that mayoral partisan influence is conditioned by the presence of councilor veto power. Thus any understanding of policymaking in cities must take seriously the distribution of power not just between city and state governments (Palmer et al., 2019), but also *within* city governments.

These findings extend theories of representation and responsiveness at other levels of government and as applied to other city politicians to the most common municipal elected office of the city councilor. Moreover, our results extend theories of partisanship to housing policy, arguably the most contentious local policy issue of the current era. The election of councilors from different parties is not a powerful mechanism by which city governments produce housing policy that represents the wishes of the electorate. Yet mayoral partisanship remains a crucial lever for housing policy representation at the local level. Together, these results suggest that theories about the role of partisanship and political representation at the local policy should take note of the complex institutional context in each policy area. Housing involves an amalgam of different zoning policies across cities, which combines with different institutional rules surrounding the balance of power among elected and unelected officials in local government. Our findings place the role of these institutions in conversation with theories of partisan representation, and help develop a more holistic understanding of the role of partisanship in local policy.

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Supplementary Appendix for “How Partisanship in Cities Influences Housing Policy”

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A Housing Policy Survey

Upon entrance to our survey, potential respondents were given information about the survey and asked for their informed consent. The explanation of the study provided to research participants, with relevant identifying portions of the information redacted, is shown below.

You are invited to participate in a survey about politics and public affairs that is being conducted by [names and universities]. You will be asked to answer a number of questions about national and community affairs. The survey should take approximately 10 minutes to complete. You may be invited to participate in additional follow-up surveys.

Your participation is voluntary. You must be 18 years or older to participate. The only potential risk of this study is a loss of confidentiality, but this is a very small risk. No identifying information other than very general demographic information will be included along with your responses. Taking part in this study will not benefit you directly, but this research may benefit society by improving our understanding of politics and government. If you have read this form and have decided to participate in this study, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled. The alternative is not to participate. We will not ask for your name or other identifying information. Your individual privacy will be maintained in all published work or public presentations resulting from the study.

If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, please contact [name] at [email]. The [office name] at [university name], at [phone number], can provide further information on your rights as a research participant.

If you consent to take the survey, please click the arrow below to begin.

Participants then were asked a number of policy questions, political questions, and demographic questions, among which was our main question of interest on housing policy, which is shown below.

1. Which of the following statements about multifamily housing, such as apartment buildings, comes closer to your view, even if neither is exactly right?
 - Multifamily housing should be allowed everywhere in my city to revitalize neighborhoods and local economies
 - Multifamily housing should be allowed only in dense areas of my city to preserve the character of less populated neighborhoods

B McCrary Tests on the Density of Observations

In this appendix we present the results of the McCrary test for the continuity of the density of observations across the 50% vote threshold. These tests replicate the RDD framework but using the density of observations as the outcome. If the density of observations were to have a “jump” in numbers across the threshold, it would suggest a potential violation of the assumption that potential outcomes are continuous at the threshold.

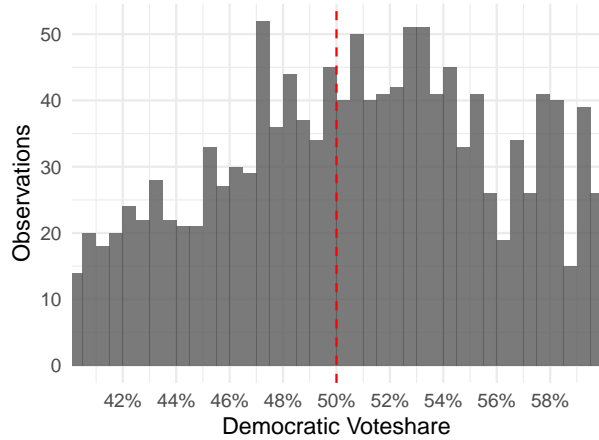
In Table A1 below we present the results of these tests using the number of observations within half-percentage-point bins of voteshare. The coefficient in the second line, indicating the change in the number of observations at the threshold, represents the RDD effect on this outcome. We find a null effect for both city council elections and mayoral elections, suggesting that the continuity assumption is likely to hold in both council and mayoral races.

Table A1: McCrary Tests

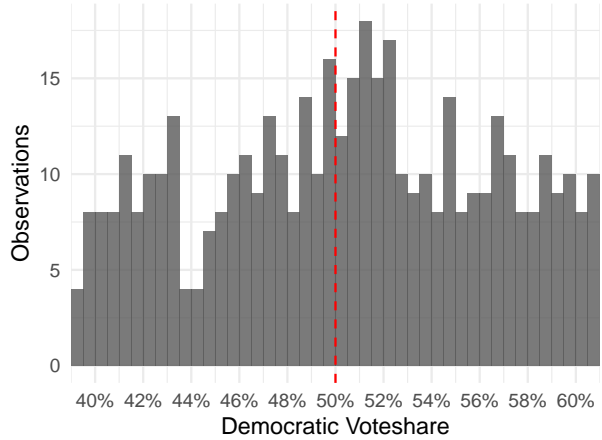
(a) City Council Elections		(b) Mayoral Elections	
	<i>Dependent variable:</i> Number of observations in bin		<i>Dependent variable:</i> Number of observations in bin
Voteshare bin	273.506*** (46.837)	Voteshare bin	53.790*** (10.202)
Voteshare ≥ 0.5	3.351 (4.014)	Voteshare ≥ 0.5	1.110 (1.291)
Voteshare bin \times Voteshare ≥ 0.5	-469.351*** (66.238)	Voteshare bin \times Voteshare ≥ 0.5	-102.339*** (14.428)
Constant	40.835*** (2.839)	Constant	11.878*** (0.913)
Observations	42	Observations	62
R ²	0.632	R ²	0.491
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

We also present these results visually in Figure A1, which shows the binned number of observations both below and above the 50% vote threshold. Visual inspection supports the more formal results shown in Table A1: that there is no discernable effect on the density of observations at the threshold for council elections but a noticeable increase in the density of observations above the threshold for mayoral elections.

However, these tests are subject to a variety of researcher degrees of freedom – in particular, the choice of the size of bin within which to group observations. An alternative check suggested by Cattaneo, Jansson, and Ma (2019) involves conducting a nonparametric test for a discontinuity in the density of the running variable that does not require binning. We present the results from these nonparametric tests, estimated using the R package `rddensity`, in Table A2 below. Similar to the tests discussed earlier, they indicate no evidence of sorting across the threshold for council elections. However, this nonparametric test does indicate that the difference in the density of observations for mayoral races is statistically distinguishable from zero at the 95% significance threshold, suggesting some evidence of sorting in mayoral elections.



(a) City Council Elections



(b) Mayoral Elections

Figure A1: Histograms of the number of observations within half percentage-point bins.

Table A2: Nonparametric Density Tests

(a) City Council Elections			(b) Mayoral Elections		
t.statistic	p.value	Effective.N	t.statistic	p.value	Effective.N
-0.05	0.96	1334	0.93	0.35	455

Finally, others have recently suggested constructing an equivalence test (Hartman and Hidalgo, 2018) based on the density of the forcing variable and calculating inverted p -values based on the null hypothesis of a difference in the density to the left and the right of the cutpoint (Hartman, 2021). We present results using this method in Table A3 below, which show the observed ratio between the density to the left and right of the threshold as well as the equivalence confidence interval and the p -value for the null hypothesis of a jump of greater than 50% in the density across the threshold. This test indicates that the null hypothesis of a substantively important difference in densities can be rejected for council elections at the 90% confidence level but cannot be rejected for mayoral elections. In both cases, the equivalence confidence interval suggests that the range of differences in density is fairly small in size as well.

Table A3: Density Equivalence Tests

(a) City Council Elections			(b) Mayoral Elections		
Observed.Ratio	Equivalence.Confidence.Interval	p.value	Observed.Ratio	Equivalence.Confidence.Interval	p.value
1.01	(0.76, 1.32)	0.01	0.80	(0.52, 1.91)	0.23

C Placebo Tests

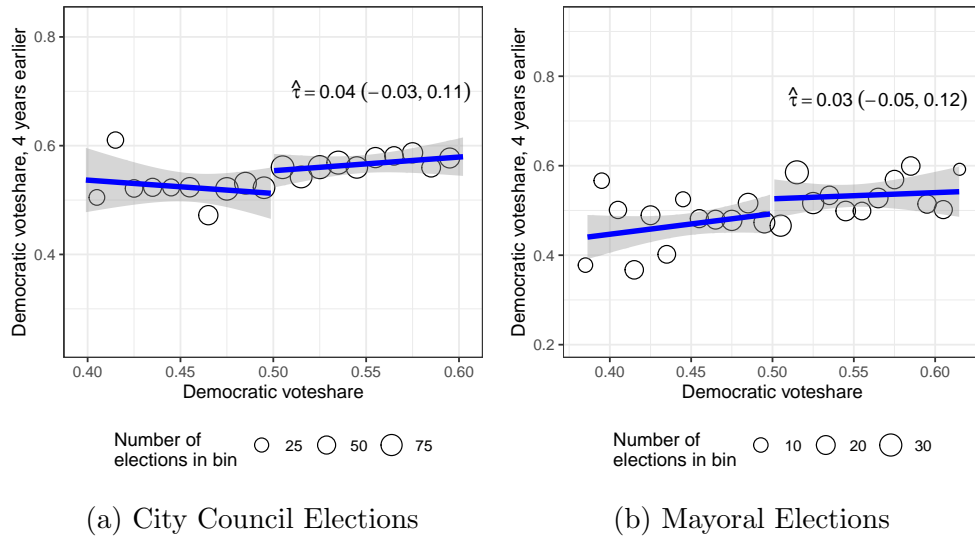


Figure A2: Placebo effect of partisanship on lagged democratic voteshare.

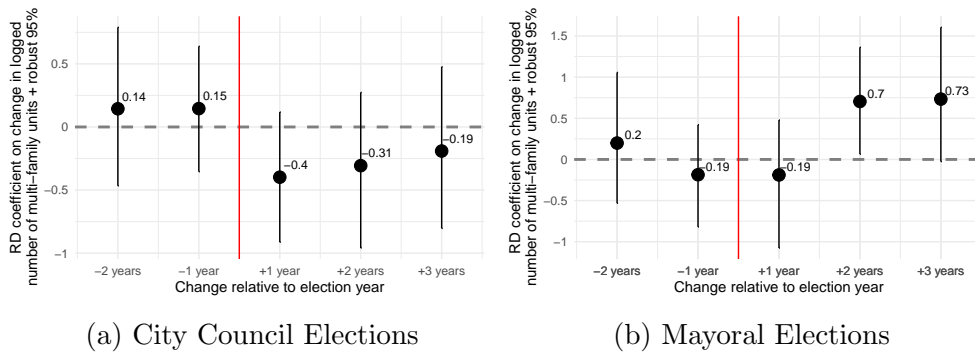


Figure A3: Placebo effect of partisanship on pre-treatment # of multi-family units permitted.

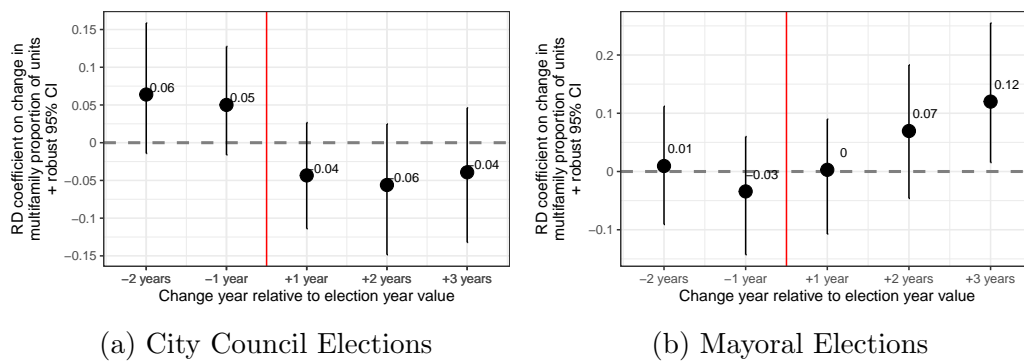


Figure A4: Placebo effect of partisanship on pre-treatment ratio of multi-family units.

D Housing Policy RDD Results in Tabular Format

Table A4: Effect of Councilor Partisanship on Δ CBPS Outcomes

DV	Coef	p-value	BW	Obs
Total buildings, T+2/3 Avg	-0.01 (-0.2, 0.18)	0.92	14.52	1590
Single-family buildings, T+2/3 Avg	0.01 (-0.18, 0.22)	0.86	14.34	1574
Multi-family buildings, T+2/3 Avg	-0.12 (-0.43, 0.2)	0.48	14.28	1572
Total units, T+2/3 Avg	-0.06 (-0.33, 0.23)	0.72	11.15	1314
Single-family units, T+2/3 Avg	0.01 (-0.18, 0.22)	0.86	14.34	1574
Multi-family units, T+2/3 Avg	-0.24 (-0.81, 0.33)	0.41	10.53	1272

Table A5: Effect of Councilor Partisanship on Δ CBPS Composition

DV	Coef	p-value	BW	Obs
Multi-family proportion of buildings, T+2/3 Avg	-0.02 (-0.05, 0.02)	0.36	11.95	1388
Multi-family proportion of units, T+2/3 Avg	-0.05 (-0.13, 0.03)	0.19	10.28	1251

Table A6: Effect of Mayoral Partisanship on Δ CBPS Outcomes

DV	Coef	p-value	BW	Obs
Total buildings, T+2/3 Avg	0.04 (-0.21, 0.29)	0.75	13.61	485
Single-family buildings, T+2/3 Avg	0.02 (-0.28, 0.32)	0.89	15.09	524
Multi-family buildings, T+2/3 Avg	0.38 (0.01, 0.82)	0.04	12.32	454
Total units, T+2/3 Avg	0.15 (-0.13, 0.39)	0.32	10.01	404
Single-family units, T+2/3 Avg	0.02 (-0.28, 0.32)	0.89	15.09	524
Multi-family units, T+2/3 Avg	0.73 (0.11, 1.4)	0.02	11.49	441

Table A7: Effect of Mayoral Partisanship on Δ CBPS Composition

DV	Coef	p-value	BW	Obs
Multifamily proportion of buildings, T+2/3 Avg	0.03 (-0.02, 0.09)	0.18	15.25	520
Multifamily proportion of units, T+2/3 Avg	0.1 (0, 0.21)	0.05	11.47	434

E Long-run Effects of Partisanship

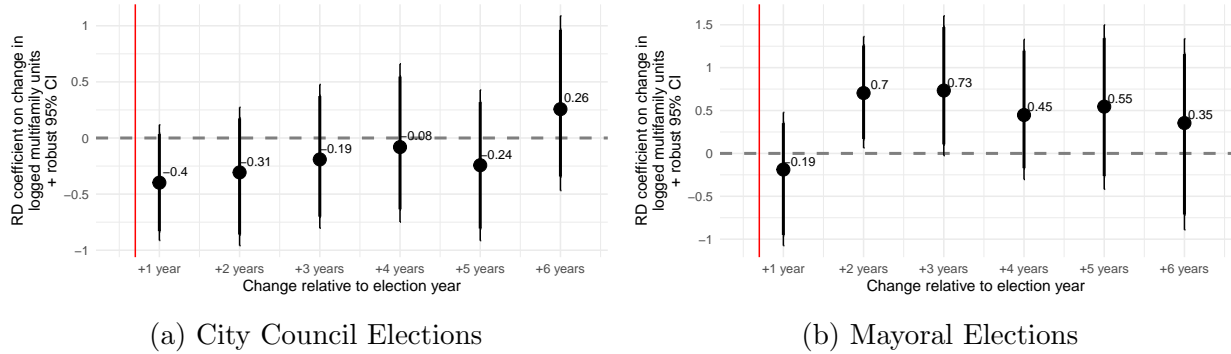


Figure A5: Long-term effect of partisanship on Δ in logged # of multi-family units permitted.

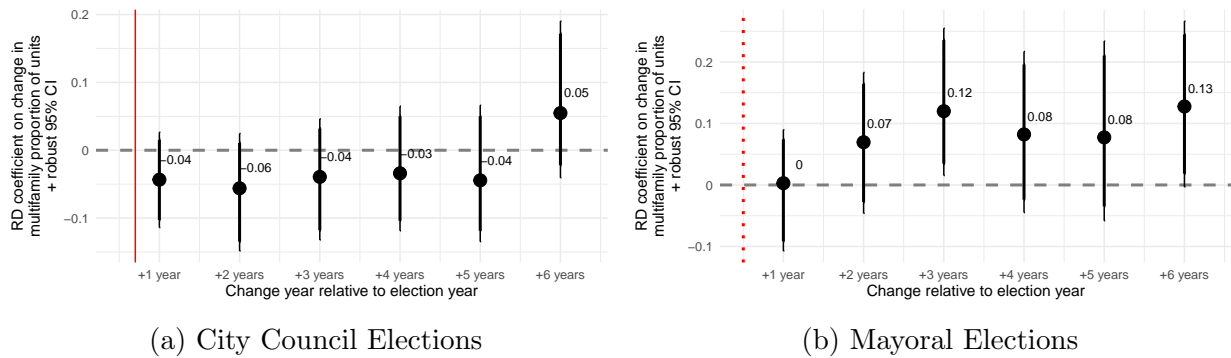


Figure A6: Long-term effect of partisanship on Δ in multi-family prop. of units permitted.

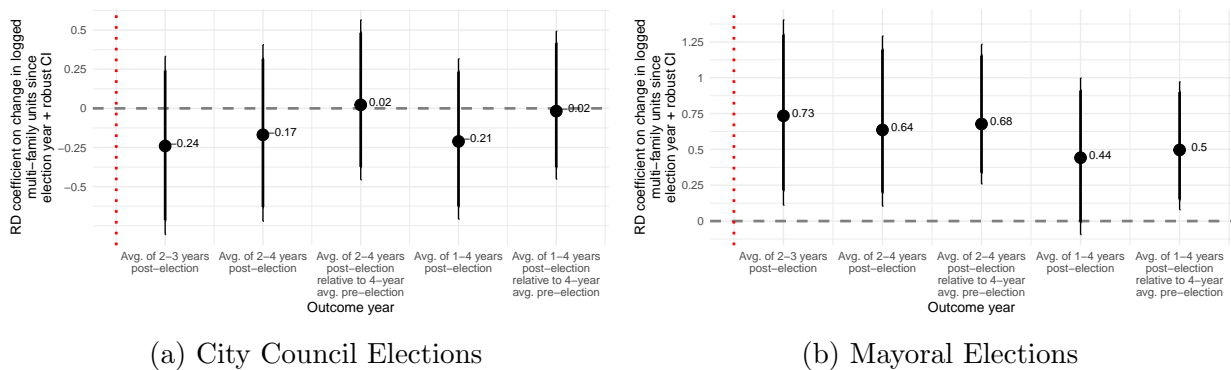


Figure A7: Effect of partisanship on Δ in logged # of multi-family units permitted averaged over different time horizons.

F Results with Alternative Bandwidths

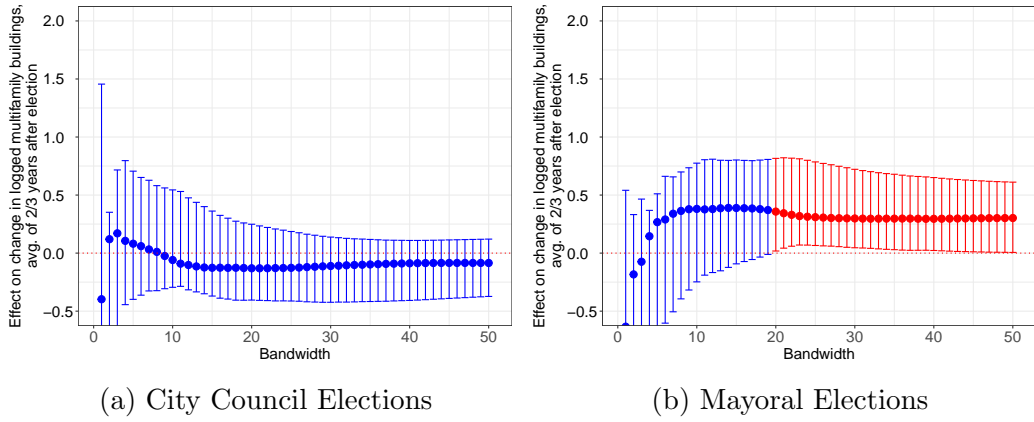


Figure A8: Effect of partisanship on permitted multi-fam. buildings w/ altern. bandwidths.

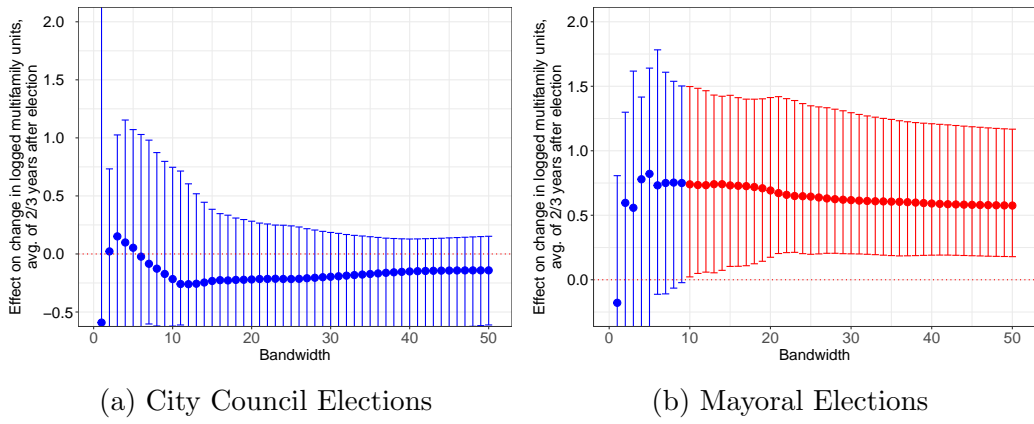


Figure A9: Effect of partisanship on permitted multi-fam. units with alternative bandwidths.

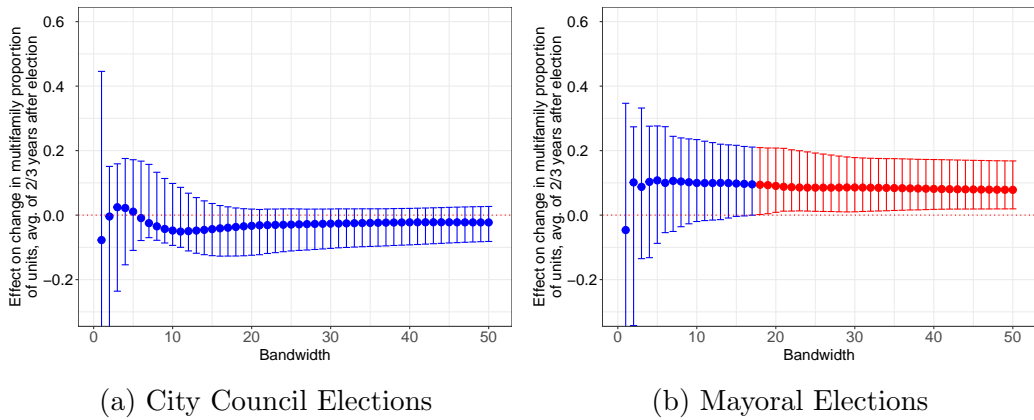


Figure A10: Effect of partisanship on prop. of units permitted that are multi-family.

G Analyses Using Alternative Transformations of Outcome Variables

A number of our main analyses use the outcome of the natural log of the number of housing units/buildings permitted plus one in order to reduce the influence of large outliers in our outcome variable on our results. The tradeoff of this choice, of course, is that our results using logged outcomes give more influence to data points with smaller values. Though this does not affect our results using proportions (e.g. the multifamily proposal of housing units or buildings), in this section we replicate our main results using two alternative transformations of the outcome variables to test the robustness of our results to the choice of outcome transformation: a non-logged per 100,000 capita measure, and the natural log of the number of housing units/buildings plus 0.1 (rather than +1). The results from these alternative transformations largely corroborate the results presented in the main paper.

In Figure A11 we present the results removing the 5 cities with the largest absolute values of the change in per 100,000 capita multifamily units.²² In Figure A12 we also provide the results using the full dataset of non-logged outcome variables. Finally, in Figure A13 we present results of analyses using outcomes measured as the natural log of the outcome + 0.1 rather than the natural log of the outcome + 1, as used in the main manuscript.

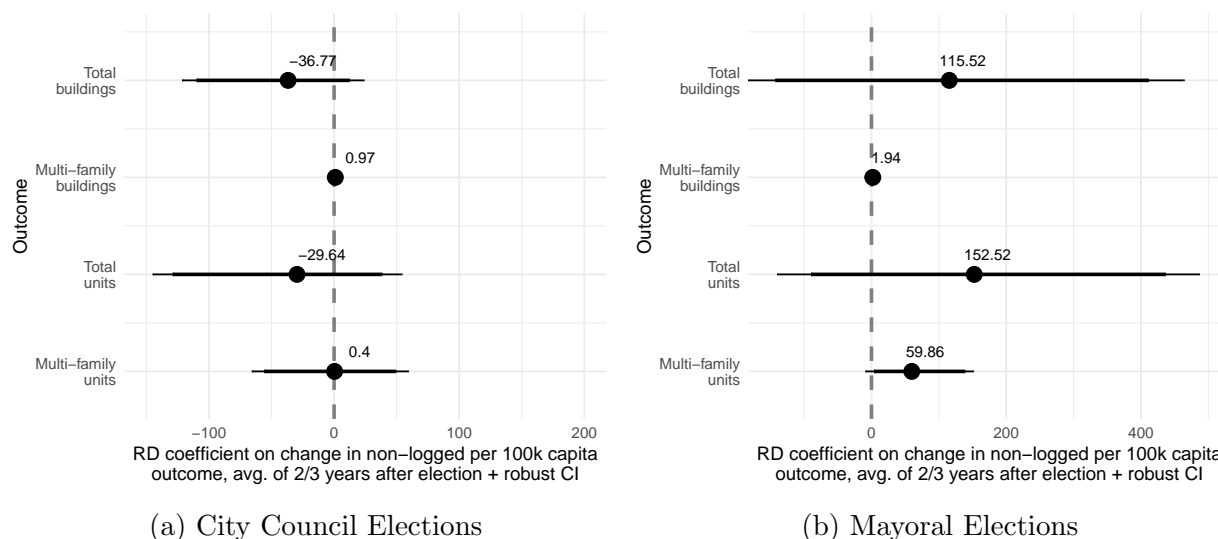
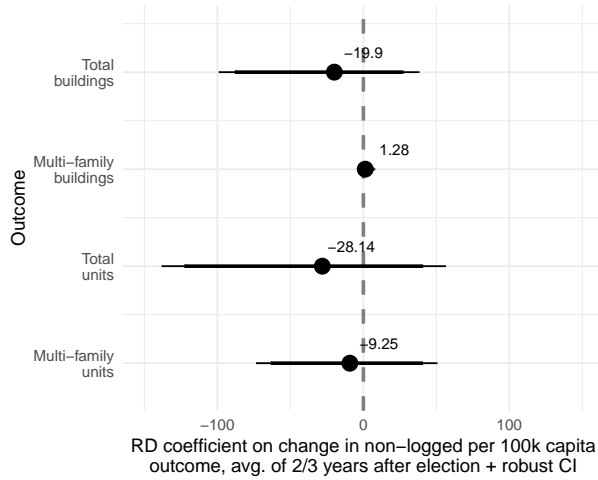
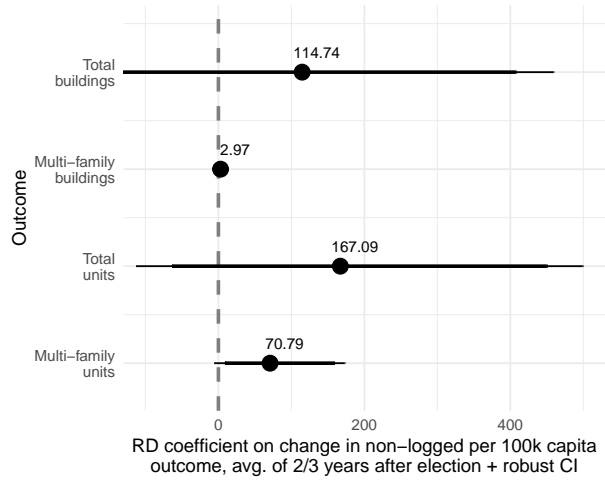


Figure A11: The effect of partisanship on changes in type of housing permitted in the fiscal years two and three years after an election.

²²These cities are Irvine, CA, Nashville, TN, Orlando, FL, Henderson, NV, and Raleigh, NC.

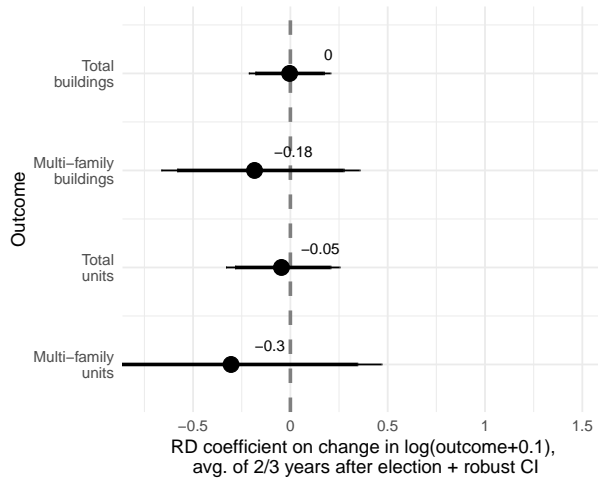


(a) City Council Elections

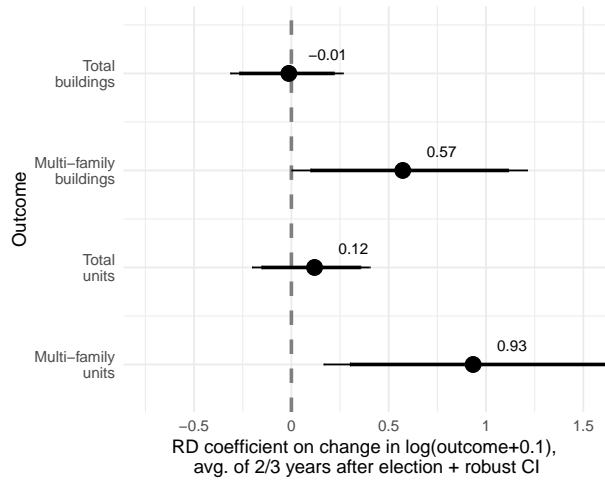


(b) Mayoral Elections

Figure A12: The effect of partisanship on changes in type of housing permitted in the fiscal years two and three years after an election, including outliers.



(a) City Council Elections



(b) Mayoral Elections

Figure A13: The effect of partisanship on changes in type of housing permitted in the fiscal years two and three years after an election.

H Results with Alternative Polynomials

This section shows results using alternative polynomials for the RDD models.

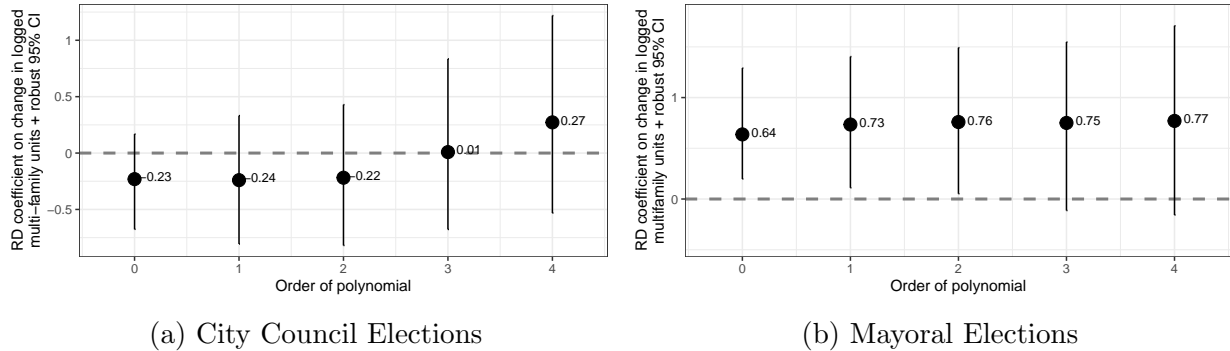


Figure A14: Effect of partisanship on the change in logged multi-family units between the election year and the average of the years two and three years after the election.

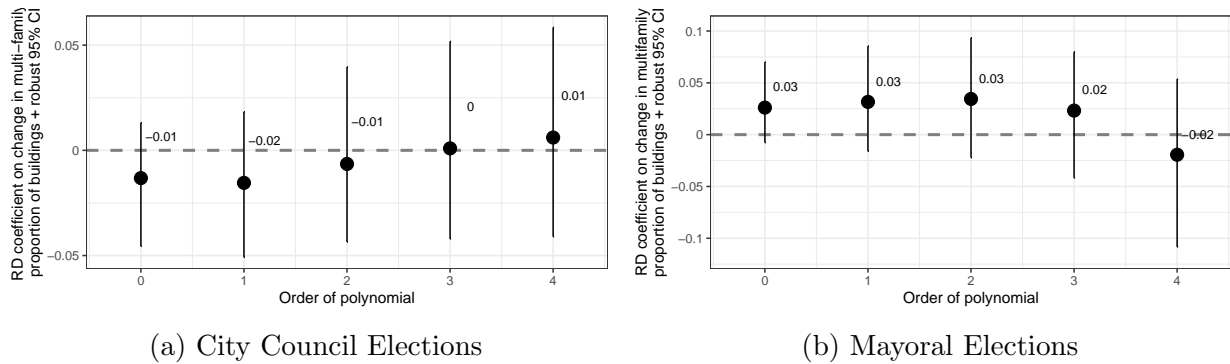


Figure A15: Effect of partisanship on the change in the multi-family proportion of buildings between the election year and the average of the years two and three years after the election.

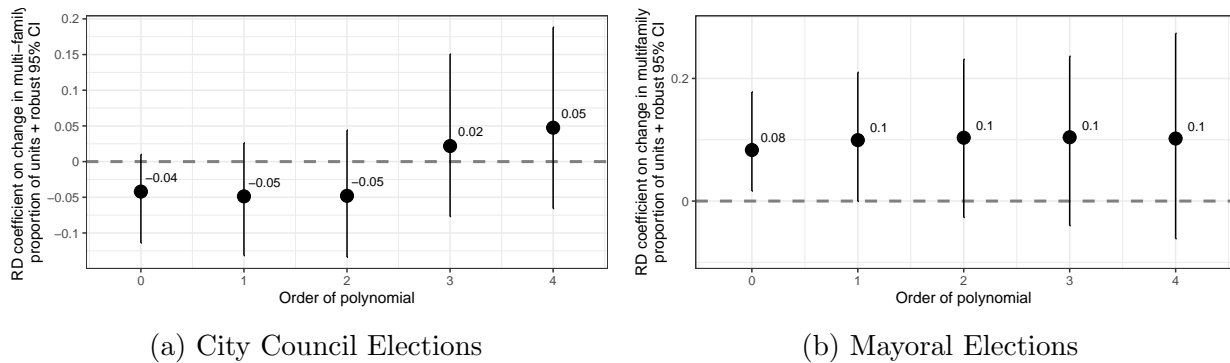


Figure A16: Effect of partisanship on the change in the multi-family proportion of units between the election year and the average of the years two and three years after the election.

I Results Using Randomization Inference

Table A8: RI Effect of Councilor Partisanship on Δ CBPS Outcomes

DV	Diff. in means	Asymptotic p-value	Obs.	BW
Multi-family units, T+2/3 Avg	-0.19 (-0.59, 0.21)	0.35	315	2
Multi-family units, T+2-4 Avg	-0.14 (-0.53, 0.19)	0.49	315	2
Multi-family units, Avg. of 2-4 years post-election - 4-yr avg. pre-election	0.11 (-0.22, 0.38)	0.51	315	2
Multi-family units, Avg. of 1-4 years post-election - 4-yr avg. pre-election	0.12 (-0.19, 0.41)	0.45	315	2

Table A9: RI Effect of Mayoral Partisanship on Δ CBPS Outcomes

DV	Diff. in means	Asymptotic p-value	Obs.	BW
Multi-family units, T+2/3 Avg	0.7 (0.19, 1.19)	0.01	104	2
Multi-family units, T+2-4 Avg	0.63 (0.11, 1.11)	0.02	104	2
Multi-family units, Avg. of 2-4 years post-election - 4-yr avg. pre-election	0.69 (0.23, 1.13)	0	104	2
Multi-family units, Avg. of 1-4 years post-election - 4-yr avg. pre-election	0.45 (0.03, 0.83)	0.03	104	2

However, in this section we also display the results of analyses reflecting the following unweighted regression discontinuity design. The results are qualitatively similar to those in the main text.

J Moderators

Here, we examine three potential institutional moderators of the effects of city councilors’ partisanship on policy: the presence of a strong mayor system (rather than a city manager), the use of at-large versus district elections to elect city councilors, and the use of partisan versus nonpartisan ballots in local elections. Though we cannot identify the causal effect of any of these institutional configurations on the effects we observe, the cross-sectional differences (and lack of differences that we observe) are still interesting.

In order to assess the impact of different institutions at the city level, we use records of the form of government of cities in our data, their councilor election methods, and whether they use partisan ballots for their elections. These data are from the International City/County Management Association’s (ICMA) Form of Government surveys.²³ We use this source of data to assess the differential impact of electing a Democrat or a Republican on policy in cities with different institutions.

Form of Government

We display the effects of electing a Democrat on types of housing permitted in Figure A17 and on the composition of housing permitted in Figure A18, divided up by form of government.

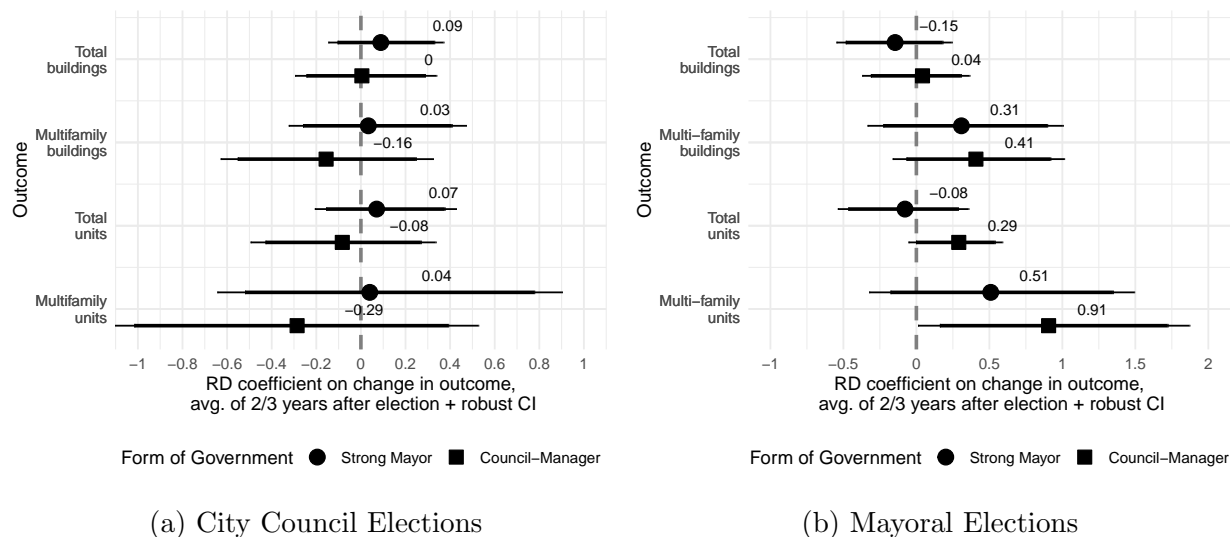
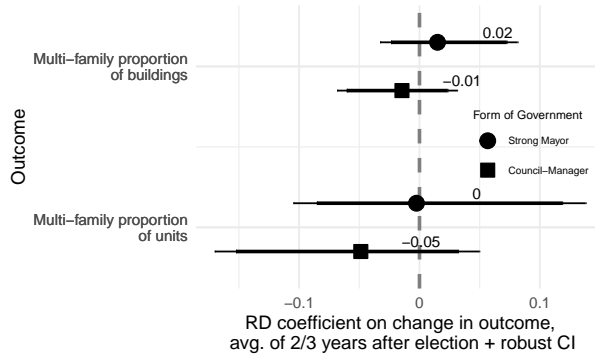


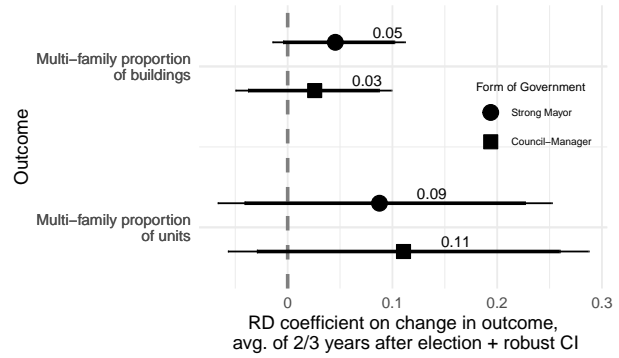
Figure A17: The effect of partisanship on changes in housing permitting in the fiscal years two and three years after an election, by form of government.

For both councilors and mayors, the effects of partisanship on housing outcomes appear to be relatively similar in cities with strong mayor and council-manager systems. This suggests that the influence of mayors on housing policy is not confined to cities where they operate as a “strong mayor,” and that the lack of influence by city councilors is not only due to their operation in the shadow of “strong” mayors.

²³The ICMA collected these data via a survey sent to city and county government officials every few years from 1974 to 2011 (in 1974, 1981, 1986, 1991, 1996, 2001, 2006, and 2011).



(a) City Council Elections

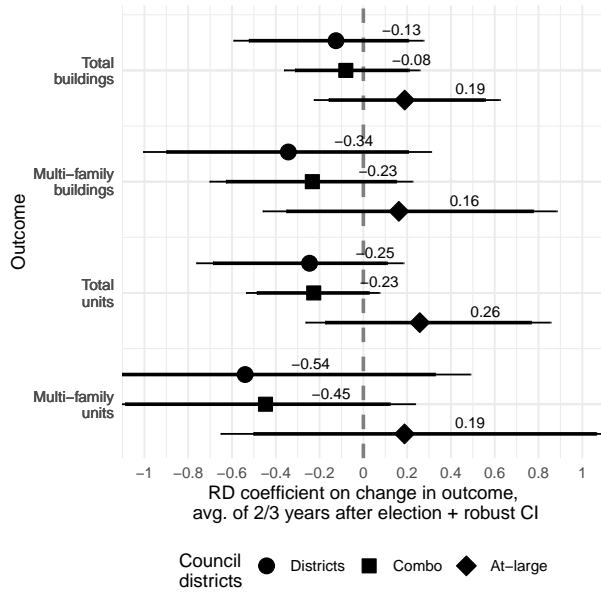


(b) Mayoral Elections

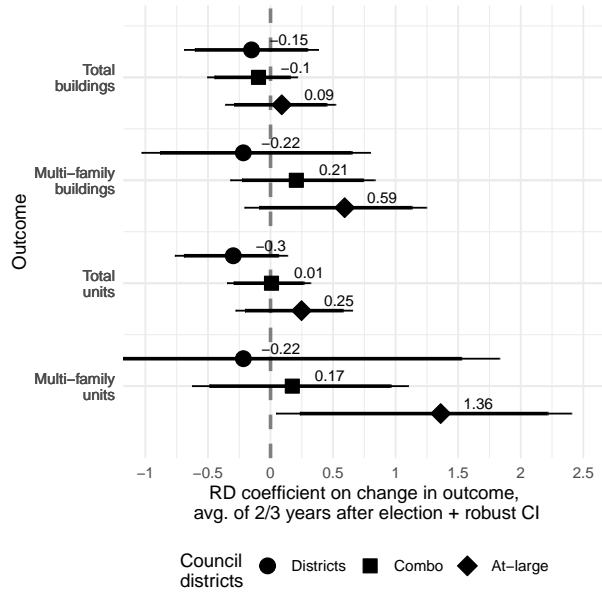
Figure A18: The effect of partisanship on changes in the composition of housing permitting in the fiscal years two and three years after an election, by form of government.

District and At-Large Elections

We display the effects of electing a Democrat on the type of housing permitted in Figure A19 and on the proportion of housing permitted that is multi-family in Figure A20, divided up by the method by which city councilors in the city are elected. As Hankinson and Magazinnik (2022) argue, district elections (rather than at-large elections) may incentivize city councilors to try and block new housing development in their district, leading to overall decreases in the supply of housing. The effects of partisanship on housing outcomes appear to vary only slightly between cities with different types of councilor elections. City councilors appear to have little influence on housing policy regardless of the method by which the city elects its councilors. Mayors are able to influence the number of multi-family housing units to a larger degree in cities with at-large city council elections, lending suggestive evidence to support the theory that districted council elections may help stymie housing development and the influence of mayors. However, the difference in the sizes of effects is not significant by election method, nor are the results for the multi-family proportion of units in line with these. In addition, very few cities change their method of electing city councilors over the course of our dataset, so we cannot make conclusions about whether this institution has any *causal* effect on the influence of partisanship.

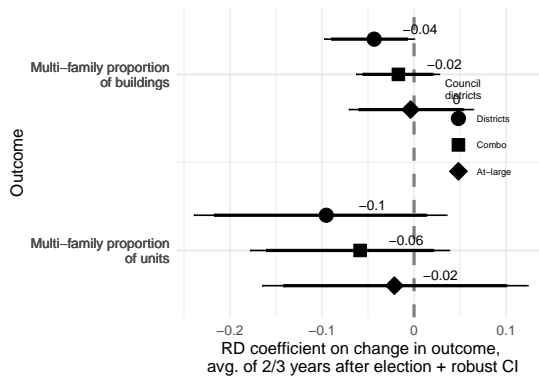


(a) City Council Elections

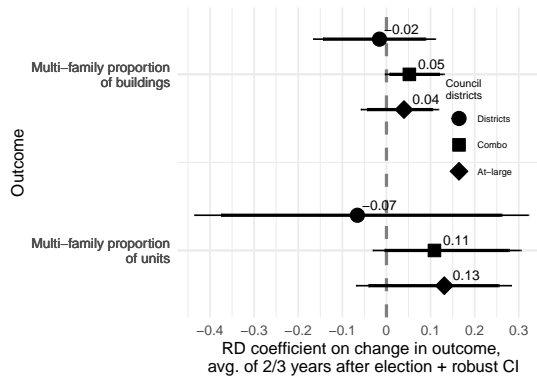


(b) Mayoral Elections

Figure A19: The effect of partisanship on changes in housing permitting in the fiscal years two and three years after an election, by type of councilor elections.



(a) City Council Elections



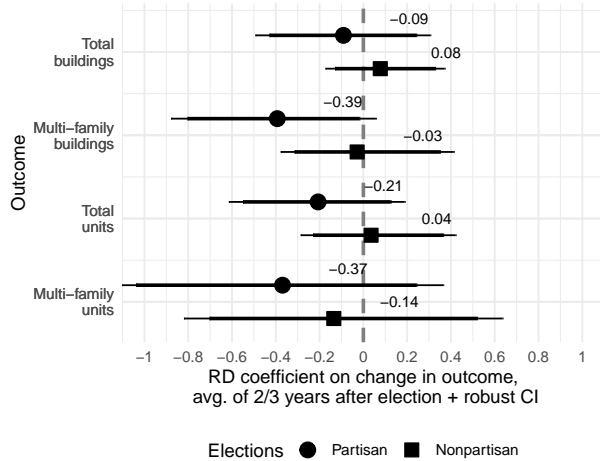
(b) Mayoral Elections

Figure A20: The effect of partisanship on changes in housing permitting in the fiscal years two and three years after an election, by type of councilor elections.

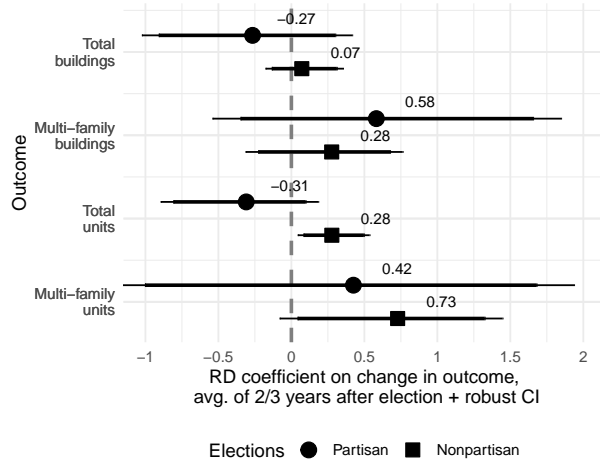
Partisan Ballots

We display the effects of electing a Democrat on the type of housing permitted in Figure A21 and on the proportion of housing permitted that is multi-family in Figure A22, divided up by the type of ballot used in that city.

The effects of partisanship on housing outcomes do not appear to only occur in cities with officially partisan election ballots — and in fact, the effects appear larger in places with nonpartisan ballots. Of course, the majority of cities (62% of elections in our data) hold nonpartisan elections, and very few cities change their ballot form over the course of our



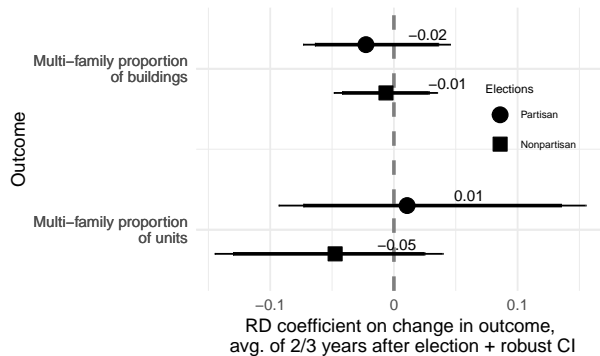
(a) City Council Elections



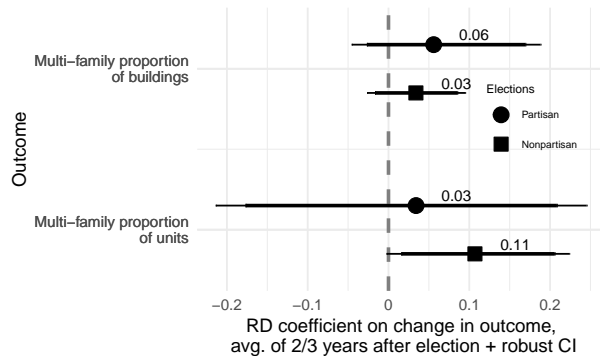
(b) Mayoral Elections

Figure A21: The effect of partisanship on changes in housing permitting in the fiscal years two and three years after an election, by type of election ballot.

dataset, so we cannot make conclusions about whether this institution has any *causal* effect on the influence of partisanship. But these results indicate that officially partisan ballots are not necessary for the partisanship of city leaders to have an effect on policy outcomes.



(a) City Council Elections

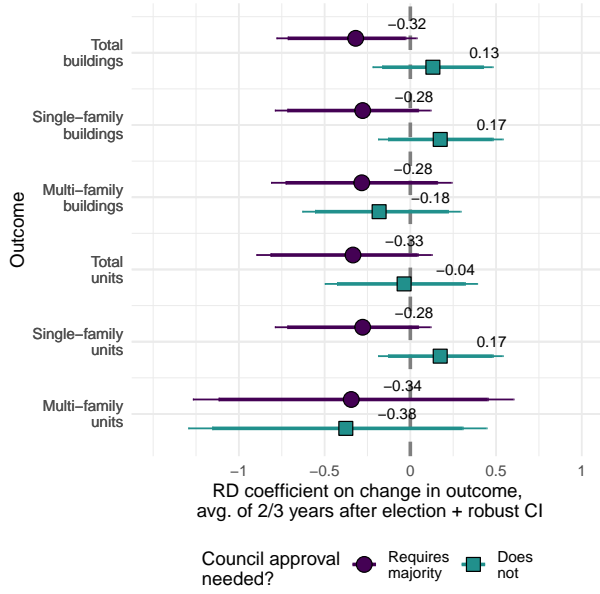


(b) Mayoral Elections

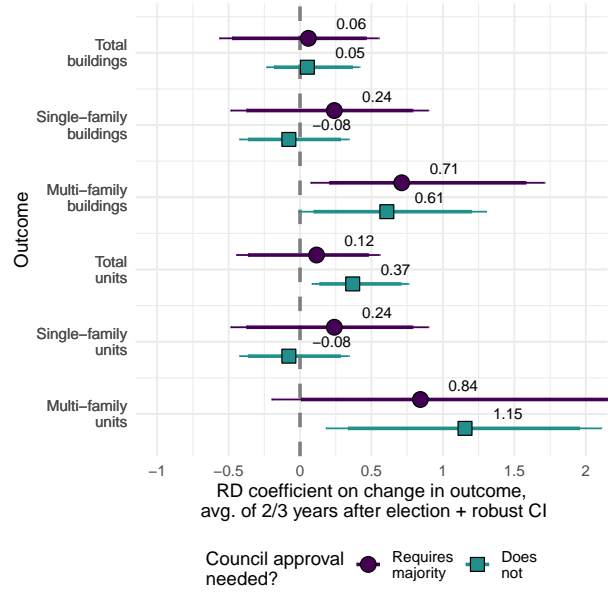
Figure A22: The effect of partisanship on changes in housing permitting in the fiscal years two and three years after an election, by type of election ballot.

Regulatory Regime

As we show in the main paper, the regulatory regime of cities – the veto powers afforded to city councils over land use development – moderates the effect of partisanship on the multi-family composition of housing permitted. In Figure A23 we show the effects of partisanship on the types of housing permitted by whether or not cities give councils this veto power.



(a) City Council Elections



(b) Mayoral Elections

Figure A23: The effect of partisanship on changes in type of housing permitted in the fiscal years two-three years after an election, divided by the regulatory power of city councils.

Council Size

Here, we present analyses of the effect of city councilors' partisanship on housing by the size of the city council in that city (Figure A24). We find suggestive evidence that electing a Democratic councilor may influence the number of multi-family housing units when those councilors are elected to smaller councils, but these differences are not definitive.

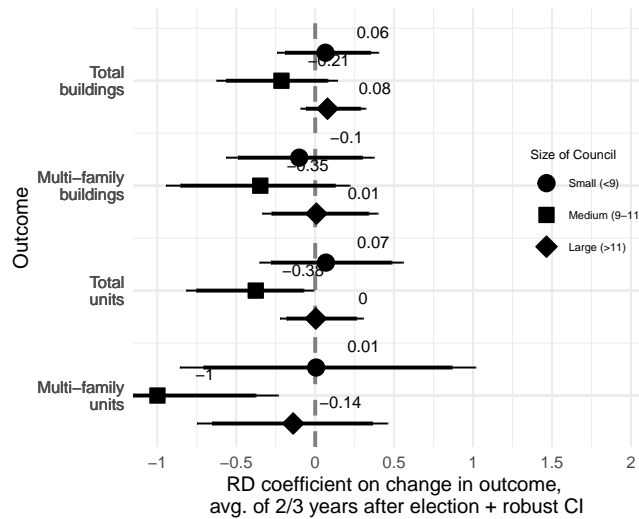
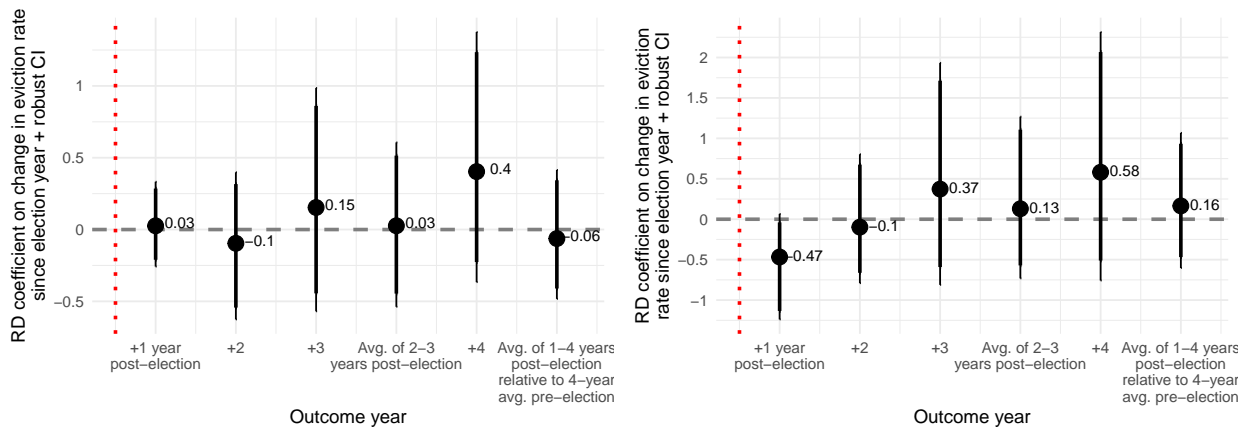


Figure A24: The effect of city councilors' partisanship on changes in type of housing permitted in the fiscal years two and three years after an election, by the size of the city council.

K Effects of Partisanship on Alternative Housing Outcomes

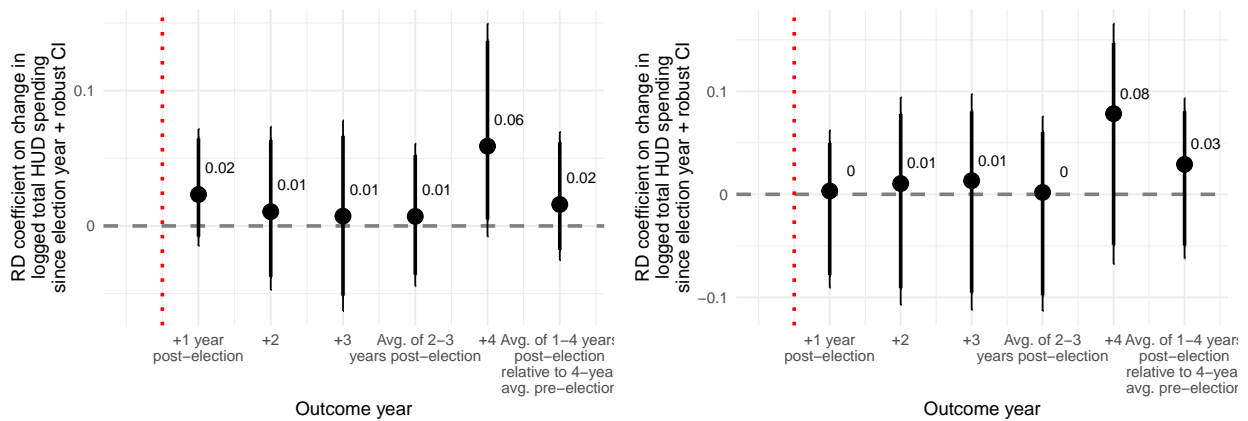
In this section, we assess the effects of politicians' partisanship on several alternative housing policy-related outcomes: the eviction rate and spending by local governments of HUD funds (used for affordable housing). Our results indicate no consistent effects of city councilor or mayoral partisanship on either of these outcomes.



(a) City Council Elections

(b) Mayoral Elections

Figure A25: Effects of partisanship on the eviction rate.



(a) City Council Elections

(b) Mayoral Elections

Figure A26: Effects of partisanship on total HUD spending.

L Difference-in-Differences Effect of Partisanship on Housing Permits

In the main manuscript, we present RDD results for the effect of city councilor and mayoral partisanship on housing permits. Below, we present results from the PanelMatch method (Imai, Kim, and Wang, 2021), which compares units with similar treatment histories (i.e. party control) that are “treated” with a Democrat taking control of the mayoral office vs. those that are not treated (i.e. a Republican takes control). Figure A27 shows the effect of Democratic control of the mayor’s office on several of our primary outcome measures of multifamily housing permits. Consistent with our main results, these analyses provide suggestive evidence that a Democrat becoming mayor increases the number of multifamily housing units and total housing units permitted, as well as the proportion of housing units permitted that are multifamily in the first two years after they take power. However, none of these results are statistically distinguishable from zero.

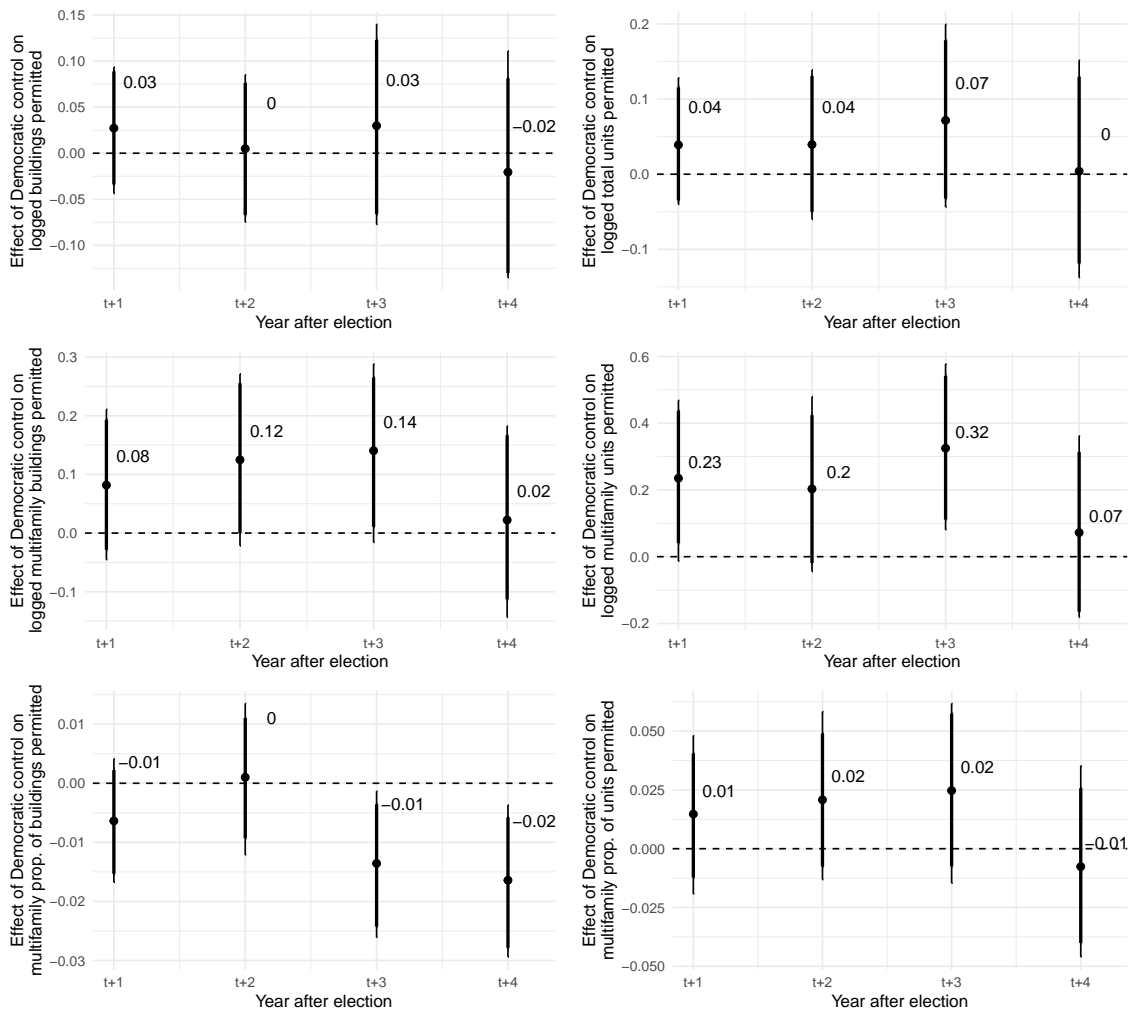


Figure A27: Effects of mayoral partisanship on housing outcomes using PanelMatch. Thick bars show 90% confidence intervals and thin bars show 95% confidence intervals.

M Consequences for Affordability

Research on housing across the disciplines of economics and urban planning has consistently identified the effect of building more housing (and more multifamily housing) on the affordability of housing in cities (e.g. Glaeser, Gyourko, and Saks, 2005; Glaeser and Gyourko, 2018). Given that we identify effects of mayoral partisanship on housing production, we also examined this downstream consequence of increased housing permits. To do so, we incorporated data from the Zillow Housing Value Index, a dataset constructed for researchers by Zillow. The index provides a monthly, smoothed, seasonally-adjusted measure of home values (single-family residences and condominiums) at the city level. For our purposes, we collapse the index to the city-by-year level. We then analyzed the effects of city councilors' and mayors' partisanship on the overall housing affordability of cities using these data and the same regression discontinuity design as described earlier. Our analyses provide suggestive evidence that electing a Democrat as mayor leads to a decrease in housing prices, as shown in Figure A28. Electing a Democrat rather than a Republican as mayor appears to lead to approximately 10% lower housing values in the 2-3 years following their election. It's important to note though that these analyses are underpowered. In Figure ??, we provide suggestive evidence that these results are concentrated in the cities that are undergoing higher degrees of housing price growth. This indicates that mayors may have the power to substantially forestall housing price growth in cities where the housing crisis is most extreme while increasing multi-family housing production.²⁴

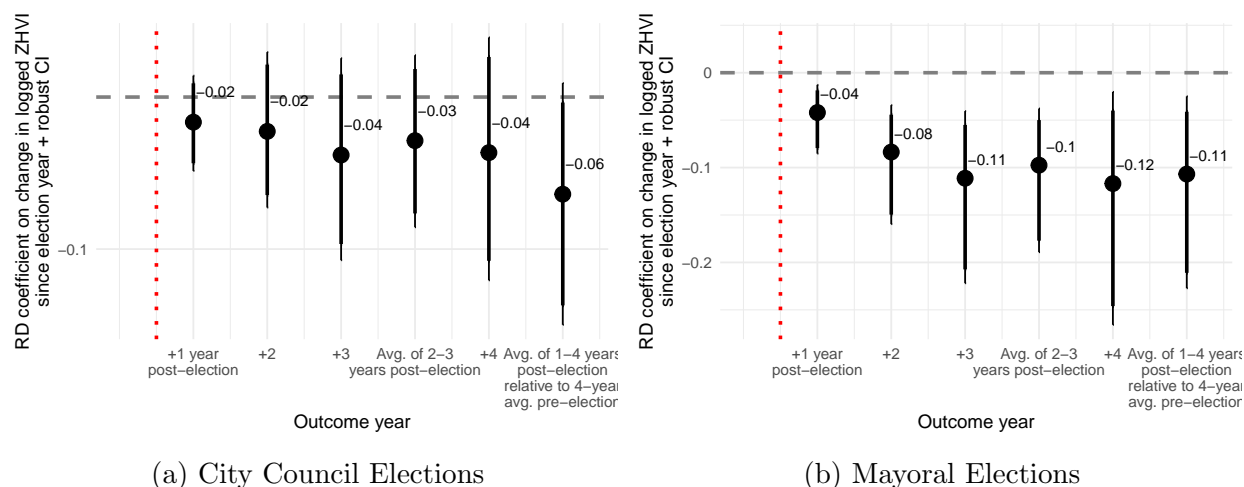


Figure A28: Effects of partisanship on the value of residential housing, as measured by the Zillow Housing Value Index (ZHVI). The ZHVI represents the average value of homes sold in each city in each year. Bars show 90% (thick lines) and 95% (thin lines) robust confidence intervals.

²⁴In Appendix K we examine one potential cause of decreases in housing prices: the total amount of spending disbursed in the city from HUD. Our results suggest that electing a Democrat as mayor potentially leads to small increases in HUD spending, which combined with the effects of multifamily development may explain the decreases in housing prices. In addition, we also examine another possible outcome of increased development: evictions. Our results indicate little influence of mayoral partisanship on either evictions or eviction filings.

Furthermore, we analyze the robustness of these results on housing prices by varying both the bandwidth and the order of the polynomial used in the RDD. The results of these robustness checks are presented in Figure A29 and Figure A30.

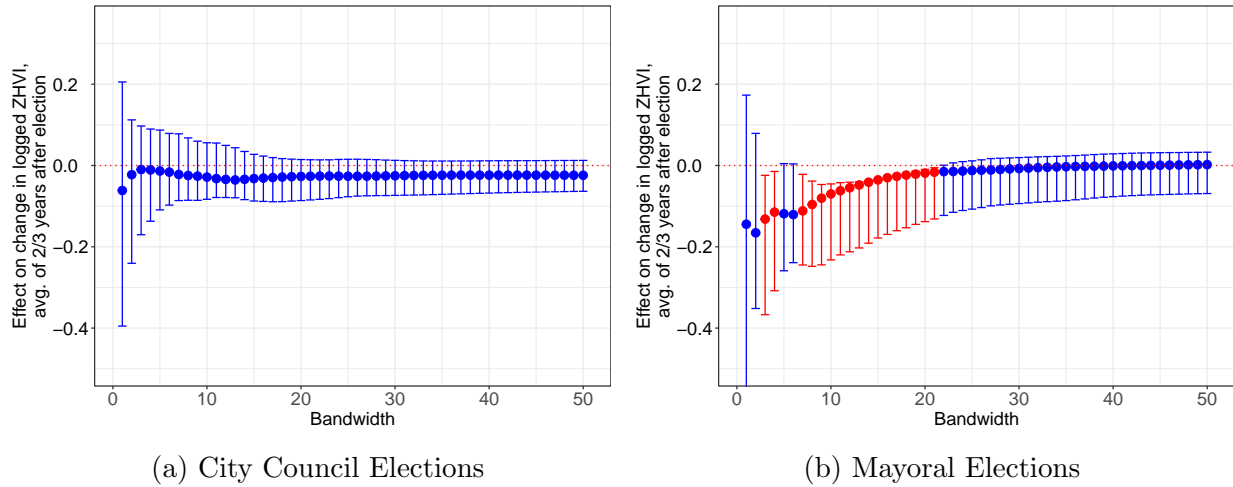


Figure A29: Effect of partisanship on logged ZHVI using alternative bandwidths. Bars show 95% robust confidence intervals, which are colored blue if they overlap with zero and red if they do not.

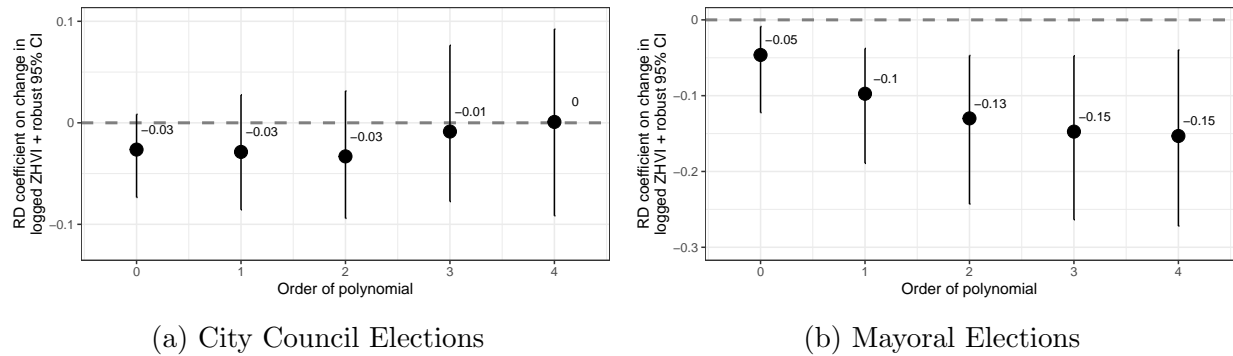


Figure A30: Effect of partisanship on the change in ZHVI between the election year and the average of the years two and three years after the election using alternative polynomials. Bars show 95% robust confidence intervals.